



# Bulgins Ethos

Borne out of their experience in developing electronic components for the [world-renowned connectivity](#) and switching brands [Bulgin](#) and Arcoelectric, our teams of product development engineers based at the Connectivity Lab in Cambridge relish the challenge of delivering complex and demanding [custom solutions](#).

Working in close collaboration with you, we identify opportunities, mitigate risks and plan how to exploit new and emerging technologies, creating category-driving innovations that deliver on highly demanding projects.

## [Pushing the boundaries of new product development.](#)

At the Connectivity Lab, we offer our customers a high quality, 'one stop shop' engineering resource, using our technical expertise and extensive knowledge across a range of engineering disciplines to provide human-centered design, as well as turnkey project management capabilities. Liaising directly with our manufacturing plants, the Connectivity Lab ensures that no stone is unturned in getting your ideas off the page and progressing your prototype to full-scale manufacturing to meet the demands of your customers. This simplifies the supply chain and the manufacturing process, reduces production costs and accelerates time to market.

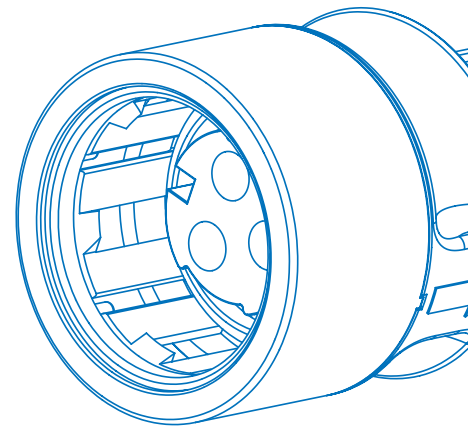
## [Excellence and experience](#)

Having access to the right expertise, at the right time – whether it is for an individual phase of the development project or the entire production process – is a vital part of the transition from concept to finished product. At Elektron, we foster an entrepreneurial approach, equipping our engineers with state-of-the-art facilities and cutting-edge design tools, including: analytical modelling computer-aided design rapid prototyping printed circuit board manufacture testing and quality assurance

## [Celebrating individuality!](#)

All of our customers are individuals and so are their projects. With diverse R&D skills covering every aspect of engineering and a quest to bring high-level innovation to the table, our bespoke services are uniquely tailored to customers' individual needs, giving you the very best results when we take an original concept from design through to manufacture.

We pay close attention to every element of the product development and manufacturing process and have designed the StageGate® Process, our own method to control and document every step. Our service offers ISO 9001 accreditation for document control so that you can reap the benefits of our carefully controlled protocols, whether for just one aspect of a project or the entire development process.



Identify - Design - Build - Validate - Sustain



# Our Skills

Whatever your engineering requirement is, we have the knowledge and capability in-house to bring your projects to reality.

## Mechanical

- in-house 3D modelling
- finite element analysis
- rapid prototyping
- 3D rendered models

## Electronics

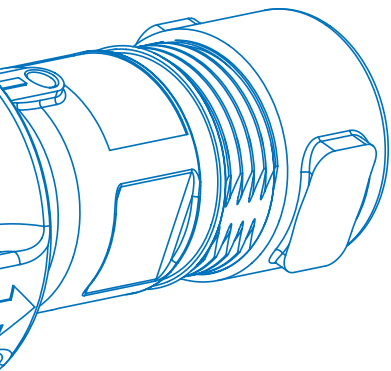
- in-house modelling
- simulation
- rapid prototyping
- optimized printed circuit board layouts
- human-centered design

## Assembly

- cable to connector complete assemblies
- overmoulding tools for all our connectors
- enclosures and complete panel assembly
- turnkey solutions for nished article or sub-assembly parts

## Software

- agile software development
- continuous integration
- source code management
- straightforward graphical user interfaces
- improved usability



# Approvals

Good design, high quality and maximum value have formed an integral part of the Bulgin philosophy.

We maintain a documented quality plan specifying process and product goals and are approved by BSI to ISO9001.

Investment in new plant and equipment makes an important contribution to continuous quality improvements. The risk of errors in the transition from design to manufacture is greatly reduced by the digital data flows from our CAD system, and our sophisticated automatic manufacturing equipment which can form and assemble components to consistently high quality standards.

All new products are extensively pre-production tested, in our dedicated electrical and mechanical test facility, which also conducts regular checks during manufacture.

The numerous international safety approvals gained are testimony in themselves to Bulgin's ongoing commitment to quality and the world wide market place.



These European Directives introduced environmental responsibilities for electrical and electronics equipment manufacturers. The RoHS (Restriction of use of certain Hazardous Substances) regulation (Directive 2002/95/EC) came into force July 2006. The WEEE (Waste Electrical and Electronic Equipment) regulation (Directive 2002/96/EC), came into force January 2007.

The RoHS directive effectively bans the use of certain chemicals, these are defined as:

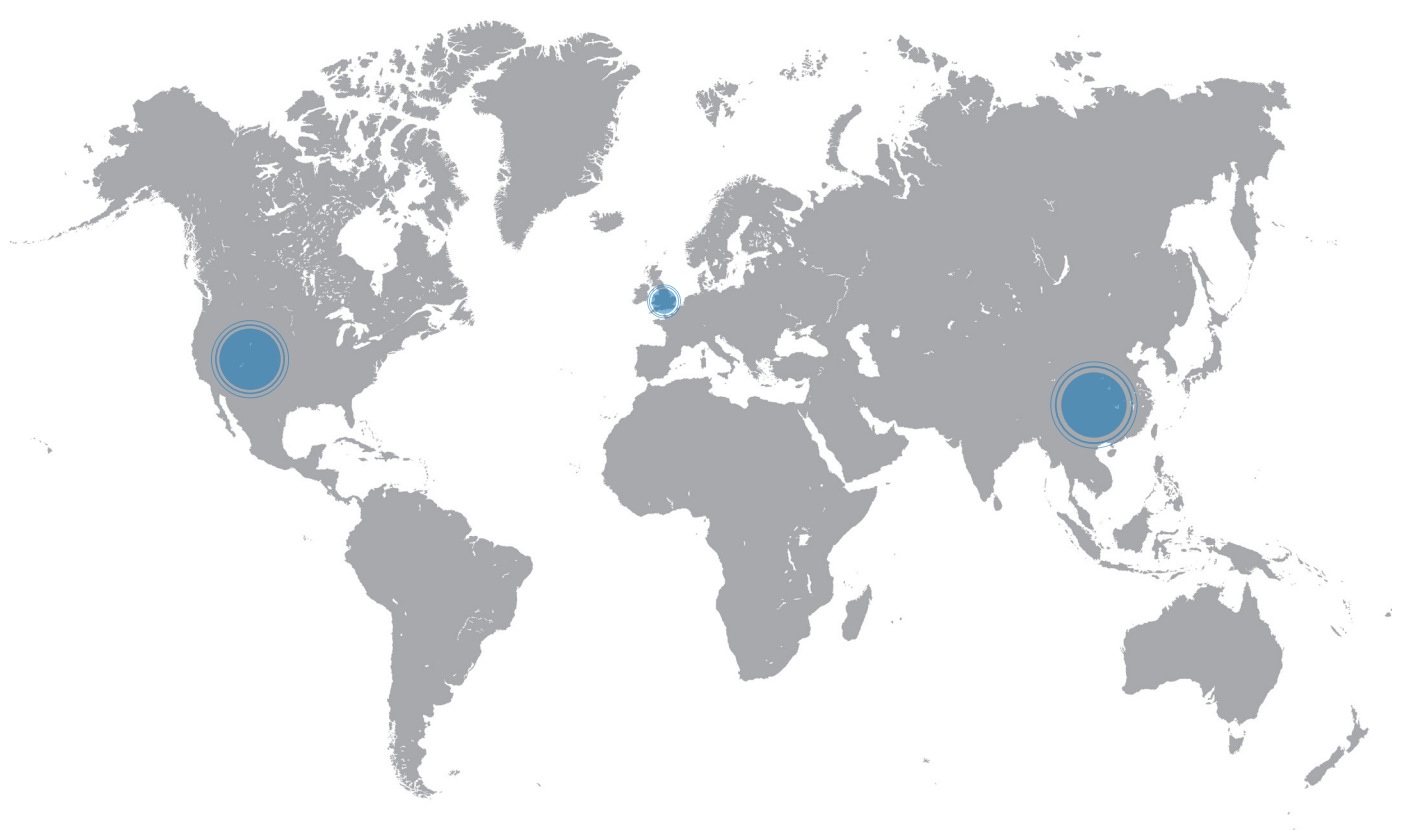
- Lead
- Cadmium
- Mercury
- Hexavalent Chromium
- Polybrominated Biphenyl (PBB) - flame retardant
- Polybrominated Diphenyl Ether (PBDE) - flame retardant (including Deca BDE)

Action has been taken to ensure all standard products meet the requirements of this directive. All packing carries RoHS compliance information as conformation.

\*Our IP ratings are internally tested to EN 60529. IP68 rated products have undergone immersion testing in water at a depth of 10M for a period of 2 weeks unless otherwise stated.

# Our Offices

Bulgin has a [global presence](#), with regional offices located in the [UK](#), [US](#) and [China](#). Our reach is also through an [extensive distribution network](#) which covers over [200 countries worldwide](#).



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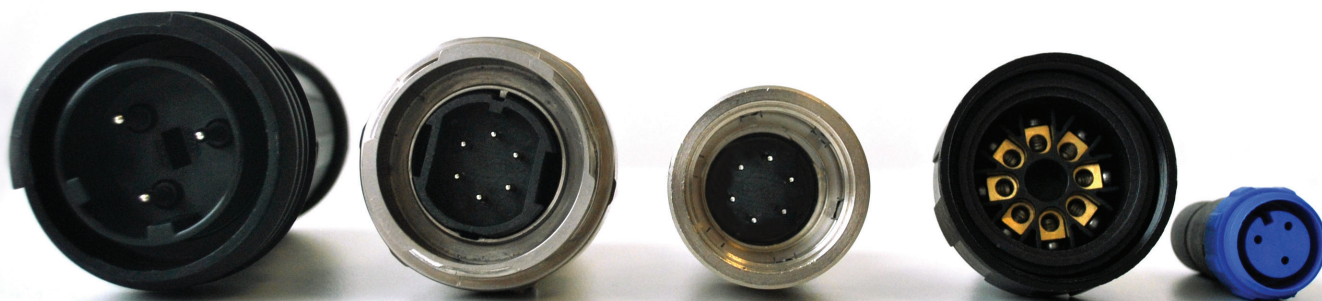


A full range of IP66, IP68 and IP69K rated environmentally sealed circular connectors designed to provide secure and safe connections in harsh or hostile conditions.

The Power Buccaneer range consist of the miniature 400, Mini, Standard, 900, 7000 and 6000 Series. Screw terminations ensure simple 'field' connection, while crimp terminations fulfil the requirement for fast effective volume connections.

Each range has flex cable connector, in-line flex cable connector and panel mounting connector options. Over molded versions of the 400 series and Standard Buccaneer provide safe, secure and tamperproof cable termination.

With a wide choice of alternatives from 2 to 32 poles, BNC connections and screw, solder or crimp terminations, the Buccaneer range provides the answer to many design problems.



|                       |       |
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| 6000 Series Buccaneer | 46-53 |
| 7000 Series Buccaneer | 54-61 |

The EXPlora range is most suited to manufacturers of ancillary electrical equipment such as motors, pumps, lighting equipment, process and control gear for use in factories and plant where hazardous or explosive atmospheres can be caused by flammable gases, mists or vapours or by combustible dusts.



Independently tested for compliance to ATEX standards for use in Zone 2 and Zone 22 environments, the new EXP series is manufactured from a tough, high grade UL94V-0 rated Polyester material and provides environmental sealing to IP68. The ATEX coding is: Ex II 3 GD and the certificated no: Baseefa09ATEX0232X.

EXPlora is rated up to 18A, 600Vac/dc for 2, 3, 4 and 5 poles, 16A, 430Vac/dc for 7 pole and 10A, 250Vac/dc for 10 poles. The 3, 4, 5 and 7 pole versions have leading earth contacts making them suitable for single or three phase applications.





⬢ ATEX approval for Zone 2 and Zone 22 applications

⬢ Independently tested

⬢ ATEX Coding:  II 3 GD

⬢ ATEX Classification: Ex nA IIC T6 Gc  
Ex tc IIIC T85°C Dc

⬢ ATEX Certificate No: Baseefa09ATEX0232X

⬢ IP68 rating tested at 1.054kg/sq cm (15lb/sq in)

⬢ 10m depth for 2 weeks

⬢ Up to 18A, 600V ac/dc rating

⬢ 2, 3, 4, 5, 7 and 10 pole

⬢ Leading earth contact for 3, 4, 5 & 7 pole versions

⬢ Trailing Neutral on 5 pole

⬢ Plug or socket connection in each body style

⬢ Water and dustproof to IP68 when mated

⬢ 'Scoop proof' contacts

⬢ Field termination - screw terminations

⬢ Positive locating keyways - cannot be mis-connected

⬢ Sealing caps available to maintain IP68 rating of unmated connectors

⬢ Compact design

⬢ Easy assembly - no special tools required

⬢ Single or 3 phase applications

⬢ Cost effective solution

⬢ Cable acceptance from 7 to 22mm O/D

⬢ Two cable connector versions for 15mm and 22mm (maximum) cable diameters

⬢ Separate strain relief on large cable version



#### Flex Cable Connector



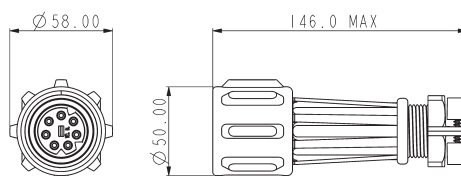
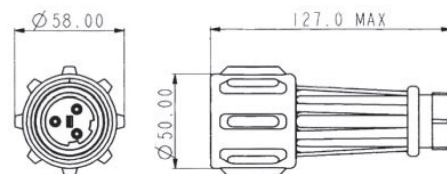
EXP-0911

#### Flex Cable Connector



EXP-A911

- Mates with in-line flex or panel mounting versions
- Positive, fast acting locking ring - can be turned with a gloved hand
- Plug or socket versions
- EXP-0 Series 13-15mm cable dia. acceptance as standard, 7-13mm with additional gland pack
- EXP-A Series 20-22mm cable dia. Acceptance as standard, 14-20mm with additional gland pack
- Strain Relief Clamp



| Standard Cable | Large Cable   | Description  | Standard Cable | Large Cable   | Description    |
|----------------|---------------|--------------|----------------|---------------|----------------|
| EXP-0911/02/P  | EXP-A911/02/P | 2 pole Plug  | EXP-0911/02/S  | EXP-A911/02/S | 2 pole Socket  |
| EXP-0911/03/P  | EXP-A911/03/P | 3 pole Plug  | EXP-0911/03/S  | EXP-A911/03/S | 3 pole Socket  |
| EXP-0911/04/P  | EXP-A911/04/P | 4 pole Plug  | EXP-0911/04/S  | EXP-A911/04/S | 4 pole Socket  |
| EXP-0911/05/P  | EXP-A911/05/P | 5 pole Plug  | EXP-0911/05/S  | EXP-A911/05/S | 5 pole Socket  |
| EXP-0911/07/P  | EXP-A911/07/P | 7 pole Plug  | EXP-0911/07/S  | EXP-A911/07/S | 7 pole Socket  |
| EXP-0911/10/P  | EXP-A911/10/P | 10 pole Plug | EXP-0911/07/S  | EXP-A911/10/S | 10 pole Socket |

#### In-Line Flex Cable Connector



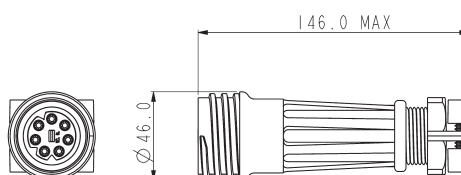
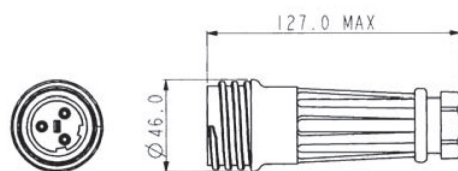
EXP-0921

#### In-Line Flex Cable Connector



EXP-A921

- Mates with either EXP-0911 or EXP-A911 connectors
- Plug or socket versions
- EXP-0 Series 13-15mm cable dia. acceptance as standard, 7-13mm with additional gland pack
- EXP-A Series 20-22mm cable dia. acceptance as standard, 14-20mm with additional gland pack
- Strain Relief Clamp



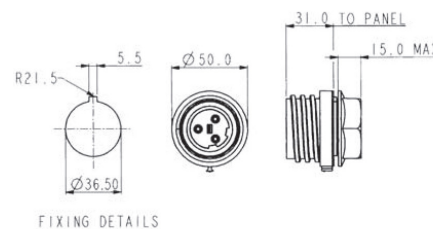
| Standard Cable | Large Cable   | Description  | Standard Cable | Large Cable   | Description    |
|----------------|---------------|--------------|----------------|---------------|----------------|
| EXP-0921/02/P  | EXP-A921/02/P | 2 pole Plug  | EXP-0921/02/S  | EXP-A921/02/S | 2 pole Socket  |
| EXP-0921/03/P  | EXP-A921/03/P | 3 pole Plug  | EXP-0921/03/S  | EXP-A921/03/S | 3 pole Socket  |
| EXP-0921/04/P  | EXP-A921/04/P | 4 pole Plug  | EXP-0921/04/S  | EXP-A921/04/S | 4 pole Socket  |
| EXP-0921/05/P  | EXP-A921/05/P | 5 pole Plug  | EXP-0921/05/S  | EXP-A921/05/S | 5 pole Socket  |
| EXP-0921/07/P  | EXP-A921/07/P | 7 pole Plug  | EXP-0921/07/S  | EXP-A921/07/S | 7 pole Socket  |
| EXP-0921/10/P  | EXP-A921/10/P | 10 pole Plug | EXP-0921/07/S  | EXP-A921/10/S | 10 pole Socket |

#### Panel Mounting Connector



EXP-0931

- Mates with EXP-0911 and EXP-A911 connectors
- Single hole fixing
- Anti-rotation key
- High grade sealing gasket
- 3-7mm panel thickness



FIXING DETAILS

#### Panel Mounting

|               |              |
|---------------|--------------|
| EXP-0931/02/P | 2 pole Plug  |
| EXP-0931/03/P | 3 pole Plug  |
| EXP-0931/04/P | 4 pole Plug  |
| EXP-0931/05/P | 5 pole Plug  |
| EXP-0931/07/P | 7 pole Plug  |
| EXP-0931/10/P | 10 pole Plug |

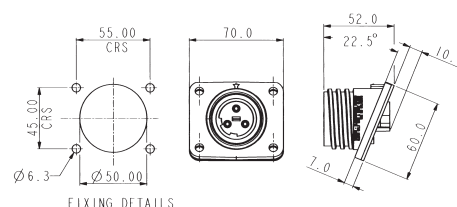
|               |                |
|---------------|----------------|
| EXP-0931/02/S | 2 pole Socket  |
| EXP-0931/03/S | 3 pole Socket  |
| EXP-0931/04/S | 4 pole Socket  |
| EXP-0931/05/S | 5 pole Socket  |
| EXP-0931/07/S | 7 pole Socket  |
| EXP-0931/10/S | 10 pole Socket |

#### Flange Mounting Connector



EXP-0941

- Mates with EXP-0911 and EXP-A911 connectors
- Supplied with high grade sealing gasket
- Supplied with sealing grommets for panel fixing screws (M6 thread recommended)



FIXING DETAILS

#### Panel Mounting

|               |              |
|---------------|--------------|
| EXP-0941/02/P | 2 pole Plug  |
| EXP-0941/03/P | 3 pole Plug  |
| EXP-0941/04/P | 4 pole Plug  |
| EXP-0941/05/P | 5 pole Plug  |
| EXP-0941/07/P | 7 pole Plug  |
| EXP-0941/10/P | 10 pole Plug |

|               |                |
|---------------|----------------|
| EXP-0941/02/S | 2 pole Socket  |
| EXP-0941/03/S | 3 pole Socket  |
| EXP-0941/04/S | 4 pole Socket  |
| EXP-0941/05/S | 5 pole Socket  |
| EXP-0941/07/S | 7 pole Socket  |
| EXP-0941/10/S | 10 pole Socket |

#### Accessories



EXP-0990, EXP-0991, EXP-0992

- Heavy duty sealing caps to maintain IP68 rating of unmated connectors, with stainless steel straps

#### Sealing Caps

|          |                                                                     |
|----------|---------------------------------------------------------------------|
| EXP-0990 | Heavy duty sealing cap for use with EXP-0911/xx/x and EXP-A911/xx/x |
| EXP-0991 | Heavy duty sealing cap for use with EXP-0921/xx/x and EXP-A921/xx/x |
| EXP-0992 | Heavy duty sealing cap for use with EXP-0931 and EXP-0941           |

#### Cable Glands

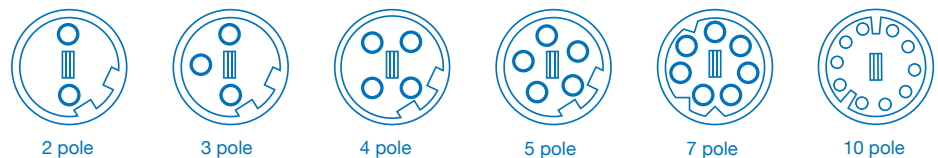


PX0980, PXA980

- Packs of 3 additional pairs Cable Glands for 900 Series Flex Cable Connectors

#### Gland Packs

|          |                                                                                                                  |
|----------|------------------------------------------------------------------------------------------------------------------|
| EXP-0980 | Pack of 3 additional cable glands for EXP-0911 and EXP-0921 to suit cable sizes; 11-13mm, 9-11 and 7-9mm dia.    |
| EXP-A980 | Pack of 3 additional cable glands for EXP-A911 and EXP-A921 to suit cable sizes; 18-20mm, 16-18 and 14-16mm dia. |

| EXP X9                                                                                                                                                  | X                                                                | X                   | /                                           | XX                                                                                      | / | X                    | / | X                                                                                                                                                                                                                                                                                                                                                                                                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|---------------------|---------------------------------------------|-----------------------------------------------------------------------------------------|---|----------------------|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Series Designation                                                                                                                                      | Body Styles                                                      | Contact Termination |                                             | Number Contacts                                                                         |   | Contact Type         |   | Cable Acceptance                                                                                                                                                                                                                                                                                                                                                                                      |
| 09 = Standard Cable Accommodation (7-13mm)<br><br>A9 = Large Cable Accommodation (14-22mm)                                                              | 1 = Flex,<br>2 = Flex In-line,<br>3 = Panel,<br>4 = Flange Panel | 1 = Screw Terminal  |                                             | 02 = 2 pole<br>03 = 3 pole<br>04 = 4 pole<br>05 = 5 pole<br>07 = 7 pole<br>10 = 10 pole |   | P = Plug, S = Socket |   | <b>EXP-0 version:</b><br>Blank = 13-15mm<br>Yellow cable gland (std)<br><br>3 = 11-13mm<br>Black cable gland<br><br>2 = 9-11mm<br>White cable gland<br><br>1 = 7-9mm<br>Dark Grey cable gland<br><br><b>EXP-A version:</b><br>Blank = 20-22mm<br>Yellow cable gland (std)<br><br>9 = 18-20mm<br>Black cable gland<br><br>8 = 16-18mm<br>White cable gland<br><br>7 = 14-16mm<br>Dark Grey cable gland |
| <b>Example:</b><br>EXP-0911/07/P/3 = Flex cable connector with standard cable accommodation body, seven pin contacts, with gland to suit 11-13mm cable. |                                                                  |                     |                                             |                                                                                         |   |                      |   |                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Contact Layout</b>                                                                                                                                   |                                                                  |                     |                                             |                                                                                         |   |                      |   |                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                                                        |                                                                  |                     |                                             |                                                                                         |   |                      |   |                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Overall dimensions of connectors when mated together:</b>                                                                                            |                                                                  |                     |                                             |                                                                                         |   |                      |   |                                                                                                                                                                                                                                                                                                                                                                                                       |
| EXP-0911 + EXP-0921                                                                                                                                     | 230 mm max.                                                      | EXP-A911 + EXP-A931 | 175 mm max. (to panel)                      |                                                                                         |   |                      |   |                                                                                                                                                                                                                                                                                                                                                                                                       |
| EXP-A911 + EXP-A921                                                                                                                                     | 270 mm max.                                                      | EXP-0911 + EXP-0941 | 145 mm max. (to panel, mid point on flange) |                                                                                         |   |                      |   |                                                                                                                                                                                                                                                                                                                                                                                                       |
| EXP-0911 + EXP-0931                                                                                                                                     | 135 mm max. (to panel)                                           | EXP-A911 + EXP-A941 | 174 mm max. (to panel, mid point on flange) |                                                                                         |   |                      |   |                                                                                                                                                                                                                                                                                                                                                                                                       |

**Electrical:**

|                            |                                                                |
|----------------------------|----------------------------------------------------------------|
| No Poles:                  | 2, 3, 4, 5    7    10                                          |
| Current Rating:            | 18A    16A    10A                                              |
| Voltage Rating:            | 600Vac/dc 430Vac/dc 250Vac/dc                                  |
| Contact Resistance:        | <10mΩ (initial)                                                |
| Insulation Resistance:     | >10 <sup>6</sup> MΩ (@ 500V dc)                                |
| Dielectric strength:       | 2.2kV ac min                                                   |
| AC Breakdown voltage:      | 6kV                                                            |
| Ambient Temperature Range: | -20°C to +55°C                                                 |
| Standards:                 | ATEX Zone 2 and Zone 22<br>IEC60079-0:2007<br>IEC60079-15:2005 |
| ATEX Coding:               | Ⓔ II 3 GD                                                      |
| ATEX Certificate No:       | Baseefa09ATEX0232X                                             |
| ATEX Classification:       | Ex nA IIC T6 Gc<br>Ex tc IIIC T85°C Dc                         |

**Materials:**

|                      |                                     |
|----------------------|-------------------------------------|
| Body Mouldings:      | Polyester                           |
| Cap Mouldings:       | Polycarbonate                       |
| Flammability Rating: | UL94V-0                             |
| UV Resistance:       | To EN50021:1999                     |
| Contacts:            | Machined Solid Brass, Nickel plated |
| O Rings:             | Nitrile Panel                       |
| Sealing Gasket:      | Silicone Rubber                     |
| <b>RoHS</b>          | Compliant                           |

**Mechanical:**

|                                    |                                                                                                                                                                                    |
|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sealing:                           | IP68, EN60529:2001 tested @<br>1.054kg/sq.cm. (15lb/sq.in.) 10m depth for<br>2 weeks                                                                                               |
| Cable Acceptance:                  | EXP-0911 - EXP-0921 13 - 15mm O/D standard,<br>7-13mm with gland pack<br>EXP-A911 - EXP-A921 20 - 22mm O/D standard,<br>14 - 20mm with gland pack                                  |
| Contact Accommodation:             | 2-7 pole - 2.5 to 4mm <sup>2</sup> (13 to 10AWG)<br>conductor, single or multi stranded<br>10 pole - 0.75 to 2mm <sup>2</sup> (14 to 18AWG)<br>conductor, single or multi stranded |
| Termination:                       | Axial screw terminals<br>22mm dia, 150N<br>15mm dia, 150N<br>7mm dia, 80N                                                                                                          |
| Cable Retention force:             |                                                                                                                                                                                    |
| Gland Nut Torques:                 |                                                                                                                                                                                    |
| EXP-0 range                        | 3.16Nm (28lbf/in)                                                                                                                                                                  |
| 13-15mm (Yellow - std.)            | 3.16Nm (28lbf/in)                                                                                                                                                                  |
| 11-13mm (black)                    | 3.16Nm (28lbf/in)                                                                                                                                                                  |
| 9-11mm (white)                     | 3.16Nm (28lbf/in)                                                                                                                                                                  |
| 7-9mm (dark grey)                  |                                                                                                                                                                                    |
| EXP-A range                        |                                                                                                                                                                                    |
| 20-22mm (Yellow - std.)            | 3.16Nm (28lbf/in)                                                                                                                                                                  |
| 18-20mm (black)                    | 3.16Nm (28lbf/in)                                                                                                                                                                  |
| 16-18mm (white)                    | 3.16Nm (28lbf/in)                                                                                                                                                                  |
| 14-16mm (dark grey)                | 3.16Nm (28lbf/in)                                                                                                                                                                  |
| Tightening Torques:                |                                                                                                                                                                                    |
| Panel mount nut                    | 2.25 Nm                                                                                                                                                                            |
| Flange & Bulkhead<br>fixing screws | 0.9 Nm                                                                                                                                                                             |
| Rear thread EXP-0931 series        | M36 x 2-6g                                                                                                                                                                         |





IP68

- ⬢ IP68 rating tested at 1.054kg/sq cm (15lb/sq in) 10m depth for 2 weeks
- ⬢ IP69K, Tested in accordance with DIN 40050/Part 9 IP6k9k
- ⬢ 32A, 600V ac/dc rating
- ⬢ 2, 3, 4, 5, 7 and 10 pole
- ⬢ Plug or socket connection in each body style
- ⬢ Water and dustproof to IP68 when mated
- ⬢ 'Scoop proof' contacts
- ⬢ Field termination - screw terminations
- ⬢ Positive locating keyways - cannot be mis-connected
- ⬢ Sealing caps available to maintain IP68 rating of unmated connectors
- ⬢ Leading earth contact for 3, 4, 5 and 7 pole versions
- ⬢ EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1
- ⬢ Trailing Neutral on 5 pole
- ⬢ Compact design
- ⬢ Easy assembly - no special tools required
- ⬢ Single or 3 phase applications
- ⬢ Bulkhead moulding available for use with flange mounting body for 45° or 90° mounting (order each separately)
- ⬢ Cost effective solution
- ⬢ Cable accommodation 7-22mm O/D
- ⬢ Two cable connector versions for 15mm and 22mm (maximum) cable diameters
- ⬢ Separate strain relief on large cable version
- ⬢ CCC, UL, CSA and VDE approvals

Flex Cable Connector



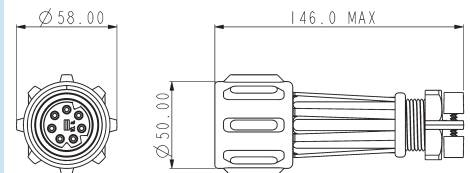
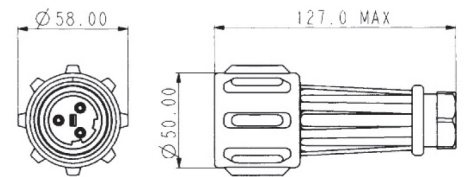
PX0911

Flex Cable Connector



PXA911

- Mates with in-line flex or panel mounting versions
- Positive, fast acting locking ring - can be turned with a gloved hand
- Plug or socket versions
- PX0 Series 13-15mm cable dia. as standard, 7-13mm with additional gland pack
- PXA Series 20-22mm cable dia. as standard, 14-20mm with additional gland pack
- Strain Relief Clamp



| Standard Cable | Large Cable | Description  | Standard Cable | Large Cable | Description    |
|----------------|-------------|--------------|----------------|-------------|----------------|
| PX0911/02/P    | PXA911/02/P | 2 pole Plug  | PX0911/02/S    | PXA911/02/S | 2 pole Socket  |
| PX0911/03/P    | PXA911/03/P | 3 pole Plug  | PX0911/03/S    | PXA911/03/S | 3 pole Socket  |
| PX0911/04/P    | PXA911/04/P | 4 pole Plug  | PX0911/04/S    | PXA911/04/S | 4 pole Socket  |
| PX0911/05/P    | PXA911/05/P | 5 pole Plug  | PX0911/05/S    | PXA911/05/S | 5 pole Socket  |
| PX0911/07/P    | PXA911/07/P | 7 pole Plug  | PX0911/07/S    | PXA911/07/S | 7 pole Socket  |
| PX0911/10/P    | PXA911/10/P | 10 pole Plug | PX0911/10/S    | PXA911/10/S | 10 pole Socket |

In-Line Flex Cable Connector



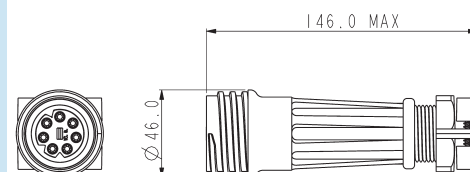
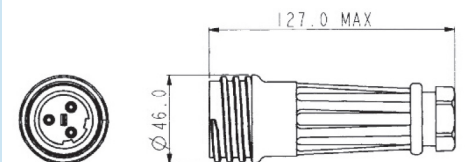
PX0921

In-Line Flex Cable Connector



PXA921

- Mates with either PX0911 or PXA911 connectors
- Plug or socket versions
- PX0 Series 13-15mm cable dia. as standard, 7-13mm with additional gland pack
- PXA Series 20-22mm cable dia. as standard, 14-20mm with additional gland pack
- Strain Relief Clamp



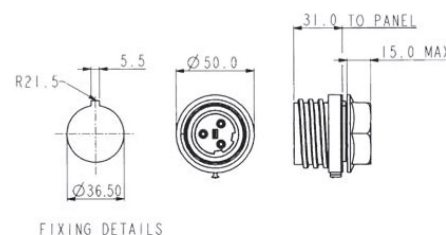
| Standard Cable | Large Cable | Description  | Standard Cable | Large Cable | Description    |
|----------------|-------------|--------------|----------------|-------------|----------------|
| PX0921/02/P    | PXA921/02/P | 2 pole Plug  | PX0921/02/S    | PXA921/02/S | 2 pole Socket  |
| PX0921/03/P    | PXA921/03/P | 3 pole Plug  | PX0921/03/S    | PXA921/03/S | 3 pole Socket  |
| PX0921/04/P    | PXA921/04/P | 4 pole Plug  | PX0921/04/S    | PXA921/04/S | 4 pole Socket  |
| PX0921/05/P    | PXA921/05/P | 5 pole Plug  | PX0921/05/S    | PXA921/05/S | 5 pole Socket  |
| PX0921/07/P    | PXA921/07/P | 7 pole Plug  | PX0921/07/S    | PXA921/07/S | 7 pole Socket  |
| PX0921/10/P    | PXA921/10/P | 10 pole Plug | PX0921/10/S    | PXA921/10/S | 10 pole Socket |

Panel Mounted Connector



PX0931

- Mates with PX0911 and PXA911 connectors
- Single hole fixing
- Anti-rotation key
- High grade sealing gasket
- 3-7mm panel thickness



**Panel Mounting**

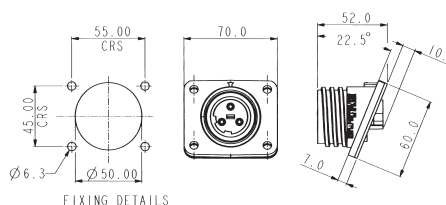
|             |              |             |                |
|-------------|--------------|-------------|----------------|
| PX0931/02/P | 2 pole Plug  | PX0931/02/S | 2 pole Socket  |
| PX0931/03/P | 3 pole Plug  | PX0931/03/S | 3 pole Socket  |
| PX0931/04/P | 4 pole Plug  | PX0931/04/S | 4 pole Socket  |
| PX0931/05/P | 5 pole Plug  | PX0931/05/S | 5 pole Socket  |
| PX0931/07/P | 7 pole Plug  | PX0931/07/S | 7 pole Socket  |
| PX0931/10/P | 10 pole Plug | PX0931/10/S | 10 pole Socket |

Flange Mounted Connector



PX0941

- Mates with PX0911 and PXA911 connectors
- Supplied with high grade sealing gasket
- Supplied with sealing grommets for panel fixing screws (M6 thread recommended)



**Flange Mounting**

|             |              |             |                |
|-------------|--------------|-------------|----------------|
| PX0941/02/P | 2 pole Plug  | PX0941/02/S | 2 pole Socket  |
| PX0941/03/P | 3 pole Plug  | PX0941/03/S | 3 pole Socket  |
| PX0941/04/P | 4 pole Plug  | PX0941/04/S | 4 pole Socket  |
| PX0941/05/P | 5 pole Plug  | PX0941/05/S | 5 pole Socket  |
| PX0941/07/P | 7 pole Plug  | PX0941/07/S | 7 pole Socket  |
| PX0941/10/P | 10 pole Plug | PX0941/10/S | 10 pole Socket |

Additional Bulkhead Adaptor Moulding



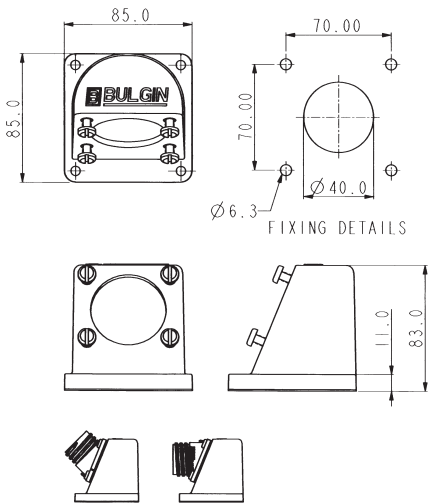
PX0950

Additional Bulkhead Adaptor Moulding



PX0950 & PX0941

- For use with flange mounting connector PX0941, to give 45° or 90° angle
- Supplied with high grade sealing gasket
- Supplied with sealing grommets for panel fixing screws (M6 thread recommended)



Accessories



PX0960, PX0970

- Sealing caps to maintain IP68 rating of unmated connectors, with plastic straps

Accessories



PX0990, PX0991, PX0992

- Heavy duty sealing caps to maintain IP68 rating of unmated connectors, with stainless steel straps

Sealing Caps

- |        |                                                                 |
|--------|-----------------------------------------------------------------|
| PX0960 | Sealing cap for use with PX0911/xx/x and PXA911/xx/x            |
| PX0970 | Sealing cap for use with all other styles                       |
| PX0990 | Heavy duty sealing cap for use with PX0911/xx/x and PXA911/xx/x |
| PX0991 | Heavy duty sealing cap for use with PX0921/xx/x and PXA921/xx/x |
| PX0992 | Heavy duty sealing cap for use with PX0931W and PX0941          |

Gland Packs

- |        |                                                                                                              |
|--------|--------------------------------------------------------------------------------------------------------------|
| PX0980 | Pack of 3 additional cable glands for PX0911 and PX0921 to suit cable sizes; 11-13mm, 9-11 and 7-9mm dia.    |
| PXA980 | Pack of 3 additional cable glands for PXA911 and PXA921 to suit cable sizes; 18-20mm, 16-18 and 14-16mm dia. |

# BUCCANEER FOR POWER

## 900 Series Buccaneer

### Specifications



### Electrical

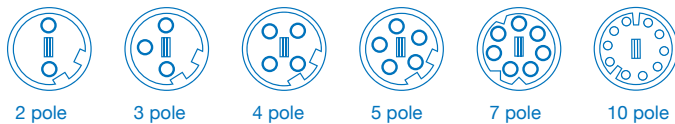
|                              |                                                                                                                                                                                                                                                                                                                                                                                                                                          |                 |                  |            |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|------------------|------------|
| No Poles:                    | 2, 3                                                                                                                                                                                                                                                                                                                                                                                                                                     | 4, 5            | 7                | 10†        |
| Current Rating:              | 32A<br>30A, CSA                                                                                                                                                                                                                                                                                                                                                                                                                          | 32A<br>25A, CSA | 32A<br>25A, CSA* | 10A<br>UL  |
| Voltage Rating:              | 600V ac/dc                                                                                                                                                                                                                                                                                                                                                                                                                               | 600V ac/dc      | 430V ac/dc       | 250V ac/dc |
| Contact Resistance:          | <10m Ω (initial)                                                                                                                                                                                                                                                                                                                                                                                                                         |                 |                  |            |
| Insulation Resistance:       | >10 <sup>9</sup> MΩ (@ 500V dc)                                                                                                                                                                                                                                                                                                                                                                                                          |                 |                  |            |
| Dielectric strength:         | 2.2kV ac min                                                                                                                                                                                                                                                                                                                                                                                                                             |                 |                  |            |
| AC Breakdown voltage:        | 6kV                                                                                                                                                                                                                                                                                                                                                                                                                                      |                 |                  |            |
| Operating Temperature Range: | -40°C to +85°C                                                                                                                                                                                                                                                                                                                                                                                                                           |                 |                  |            |
| Approvals:                   |  E214972<br> 1211899<br> 40003148<br> 2011010203500396 – 10 Amp Rated<br>2011010203500396 – 32 Amp Rated |                 |                  |            |

\*with 75°C min. rated cable

### Material

|                       |                                     |
|-----------------------|-------------------------------------|
| Body Mouldings:       | Polyamide                           |
| Flammability Rating:  | UL94V-0                             |
| UV Resistance:        | To EN50021: 1999                    |
| Contacts:             | Machined Solid Brass, Nickel plated |
| O Rings:              | Nitrile                             |
| Panel Sealing Gasket: | Silicone Rubber                     |
| RoHS                  | Compliant                           |

### Contact Layout



### Dimensions

Overall dimensions of connectors when mated together

PX0911 + PX0921 230 mm max.  
PXA911 + PXA921 270 mm max.

PX0911 + PX0931 135 mm max. (to panel)  
PXA911 + PX0931 175 mm max. (to panel)

PX0911 + PX0941 145 mm max.  
(to panel, mid point on flange)

PXA911 + PX0941 174 mm max.  
(to panel, mid point on flange)

### Mechanical:

|                        |                                                                                                                                                                                    |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sealing:               | IP69K, Tested in accordance with DIN 40050/Part 9<br>IP6K9K.                                                                                                                       |
|                        | IP68, EN60529:1992+A2:2013 tested @ 1.054kg/sq.cm.<br>(15lb/sq.in.) 10m depth for 2 weeks                                                                                          |
| Salt Mist:             | EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine<br>Severity Level 1                                                                                                                 |
| Cable Acceptance:      | PX0911-PX0921 13 - 15mm O/D standard,<br>7-13mm with gland pack<br>PXA911-PXA921 20 - 22mm O/D standard,<br>14 - 20mm with gland pack                                              |
| Contact Accommodation: | 2-7 pole - 2.5 to 4mm <sup>2</sup> (13 to 10AWG)<br>conductor, single or multi stranded<br>10 pole - 0.75 to 2mm <sup>2</sup> (14 to 18AWG)<br>conductor, single or multi stranded |
| Termination:           | Axial screw terminals                                                                                                                                                              |

|                        |                                                  |
|------------------------|--------------------------------------------------|
| Cable Retention force: | 22mm dia, 150N<br>15mm dia, 150N<br>7mm dia, 80N |
|------------------------|--------------------------------------------------|

|                         |                     |
|-------------------------|---------------------|
| Gland Nut Torques:      |                     |
| PX0 range               |                     |
| 13-15mm (Yellow - std.) | 3.16Nm (28 lbf.in.) |
| 11-13mm (black)         | 3.16Nm (28 lbf.in.) |
| 7-9mm (dark grey)       | 3.16Nm (28 lbf.in.) |
| PXA range               | 3.16Nm (28 lbf.in.) |
| 20-22mm (Yellow - std.) |                     |
| 18-20mm (black)         | 3.16Nm (28 lbf.in.) |
| 16-18mm (white)         | 3.16Nm (28 lbf.in.) |
| 14-16mm (dark grey)     | 3.16Nm (28 lbf.in.) |

|                            |                                            |
|----------------------------|--------------------------------------------|
| Tightening Torques:        |                                            |
| Panel mount nut            | 2.25Nm (20 lbf.in.)                        |
| Flange & Bulkhead          |                                            |
| fixing screws              | 0.9Nm (8 lbf.in.)                          |
| Inserts into Bodies        | 1.13Nm (10 lbf.in.) to 1.36Nm (12 lbf.in.) |
| Term screws - 2 to 5 poles | 1.0Nm (9 lbf.in.) max                      |
| Term screws - 7 pole       | 0.4Nm (3.5 lbf.in.) max                    |
| Term screws - 10 pole      | 0.25Nm (2.2 lbf.in.) max                   |

Rear thread PX0931 series M36 x 2-6g



BUCCANEER FOR POWER  
900 Series Buccaneer

Part No System



| PX X9                                                                                                                                                  | X                                                             | X                   | / | XX                                                                                      | / | X                    | / | XX                                                                                                                                                                                                                                                                                                                                                                                                    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|---------------------|---|-----------------------------------------------------------------------------------------|---|----------------------|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Series Designation                                                                                                                                     | Body Styles                                                   | Contact Termination |   | Number Contacts                                                                         |   | Contact Type         |   | Cable Acceptance                                                                                                                                                                                                                                                                                                                                                                                      |
| 09 = Standard Cable Accommodation (7-13mm)<br><br>A9 = Large Cable Accommodation (14-22mm)                                                             | 1 = Flex<br>2 = Flex In-line<br>3 = Panel<br>4 = Flange Panel | 1 = Screw Terminal  |   | 02 = 2 pole<br>03 = 3 pole<br>04 = 4 pole<br>05 = 5 pole<br>07 = 7 pole<br>10 = 10 pole |   | P = Plug, S = Socket |   | <b>EXP-0 version:</b><br>Blank = 13-15mm<br>Yellow cable gland (std)<br><br>3 = 11-13mm<br>Black cable gland<br><br>2 = 9-11mm<br>White cable gland<br><br>1 = 7-9mm<br>Dark Grey cable gland<br><br><b>EXP-A version:</b><br>Blank = 20-22mm<br>Yellow cable gland (std)<br><br>9 = 18-20mm<br>Black cable gland<br><br>8 = 16-18mm<br>White cable gland<br><br>7 = 14-16mm<br>Dark Grey cable gland |
| <b>Example:</b><br>PX0911/07/P/03 = Flex cable connector with standard cable accommodation body, seven pin contacts, with gland to suit 11-13mm cable. |                                                               |                     |   |                                                                                         |   |                      |   |                                                                                                                                                                                                                                                                                                                                                                                                       |



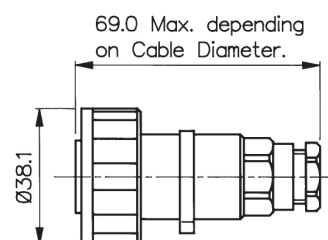
- ⬡ IP68 rating tested at 1.054kg/sq cm (15lb/sq in) 10m depth for 2 weeks and 9.84kg/sq cm (140lb/sq in) 100m depth for 12 hours
- ⬡ IP69K, Tested in accordance with DIN 40050/Part 9 IP6k9k
- ⬡ Water and dustproof to IP68 when mated
- ⬡ 2, 3, 4, 6, 7, 9, 12 and 25 pole
- ⬡ 12A, 277V ac/dc 2 pole screw terminal, 3 pole screw terminal and crimp contacts
- ⬡ 10A, 277V ac/dc 4 pole screw terminal
- ⬡ 5A, 277V ac/dc 6 and 7 pole screw terminal
- ⬡ 5A, 150V ac/dc 9 pole crimp contacts
- ⬡ 5A, 50V ac/dc 12 pole crimp and solder contacts
- ⬡ 1A, 50V ac/dc 25 pole crimp and solder contacts
- ⬡ Plug or socket connection in each body style
- ⬡ Compact design
- ⬡ Diameter over coupling ring 38mm
- ⬡ Sealing caps available to maintain IP68 rating of unmated connectors
- ⬡ 7 body styles - flex cable, in-line flex cable, panel mount (front), panel mount (rear), PCB mount, bulkhead and flange mount
- ⬡ Leading earth contact for 3 pole socket version
- ⬡ Positive locating keyways - cannot be mis-connected
- ⬡ Easy assembly - no special tools required on screw terminal versions
- ⬡ Cable range from 3.5mm - 9mm
- ⬡ Colour coded identification variants
- ⬡ Pre-wired, overmoulded cable assemblies
- ⬡ CCC, UL, CSA and VDE approvals
- ⬡ EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1

Flex Cable Connector



PX0731

- Mates with In-Line Flex or Panel Mounting Versions
- Screw Locking Ring
- Pin or Socket Versions
- Leading Earth on 3 pole connectors
- Poles 2, 3, 4, 6, 7, 9, 12, 25
- Standard Cable Acceptance (2 to 9 pole) 6-8mm, 3.5-9mm with alternative glands



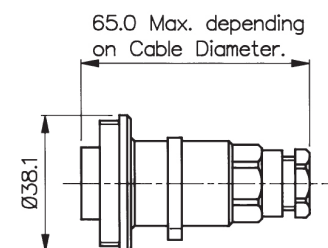
| Poles | Termination  | Pin Contacts | Socket Contact | Contacts         |
|-------|--------------|--------------|----------------|------------------|
| 2     | Screw        | PX0736/P     | PX0736/S       | Supplied Fitted  |
| 3     | Screw        | PX0731/P     | PX0731/S       | Supplied Fitted  |
| 3     | Crimp        | PX0776/P     | PX0776/S       | Supplied Loose   |
| 4     | Screw        | PX0748/P     | PX0748/S       | Supplied Fitted  |
| 6     | Screw        | PX0739/P     | PX0739/S       | Supplied Fitted  |
| 7     | Screw        | PX0745/P     | PX0745/S       | Supplied Fitted  |
| 9     | Crimp        | PX0728/P     | PX0728/S       | Supplied Loose   |
| 12    | Crimp/Solder | PX0794/P     | PX0794/S       | Order Separately |
| 25    | Crimp/Solder | PX0820/P     | PX0820/S       | Order Separately |

Inline Flex Cable Connector



PX0732

- Mates with Flex or Panel Mounting Versions
- Screw Locking Ring
- Pin or Socket Versions
- Leading Earth on 3 pole connectors
- Poles 2, 3, 4, 6, 7, 9, 12, 25
- Standard Cable Acceptance (2 to 9 pole) 6-8mm, 3.5-9mm with alternative glands



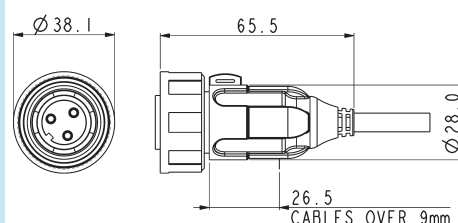
| Poles | Termination  | Pin Contacts | Socket Contact | Contacts         |
|-------|--------------|--------------|----------------|------------------|
| 2     | Screw        | PX0737/P     | PX0737/S       | Supplied Fitted  |
| 3     | Screw        | PX0732/P     | PX0732/S       | Supplied Fitted  |
| 3     | Crimp        | PX0778/P     | PX0778/S       | Supplied Loose   |
| 4     | Screw        | PX0749/P     | PX0749/S       | Supplied Fitted  |
| 6     | Screw        | PX0740/P     | PX0740/S       | Supplied Fitted  |
| 7     | Screw        | PX0746/P     | PX0746/S       | Supplied Fitted  |
| 9     | Crimp        | PX0729/P     | PX0729/S       | Supplied Loose   |
| 12    | Crimp/Solder | PX0795/P     | PX0795/S       | Order Separately |
| 25    | Crimp/Solder | PX0821/P     | PX0821/S       | Order Separately |

Pre Wired Flex Cable Connector



PX0700

- Overmoulded cable assemblies
- Up to 14mm dia cable with PVC or PU jackets
- PX0700 flex cable connector
- Mates with in-line flex connector and all panel connectors

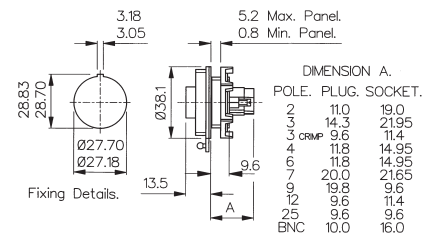


Front Panel Mounting Connector



PX0730/P

- Mates with Flex Cable Connector
- Front panel mounting
- Single Hole Fixing
- Pin or Socket Versions
- Poles 2, 3, 4, 6, 7, 9, 12, 25



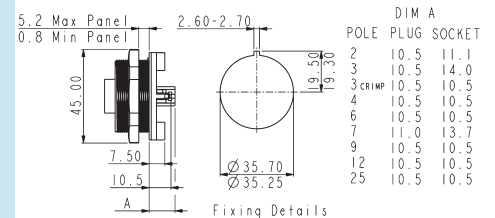
| Poles | Termination  | Pin Contacts | Socket Contact | Contacts         |
|-------|--------------|--------------|----------------|------------------|
| 2     | Screw        | PX0735/P     | PX0735/S       | Supplied Fitted  |
| 3     | Screw        | PX0730/P     | PX0730/S       | Supplied Fitted  |
| 3     | Crimp        | PX0779/P     | PX0779/S       | Supplied Loose   |
| 4     | Screw        | PX0747/P     | PX0747/S       | Supplied Fitted  |
| 6     | Screw        | PX0738/P     | PX0738/S       | Supplied Fitted  |
| 7     | Screw        | PX0744/P     | PX0744/S       | Supplied Fitted  |
| 9     | Crimp        | PX0727/P     | PX0727/S       | Supplied Loose   |
| 12    | Crimp/Solder | PX0796/P     | PX0796/S       | Order Separately |
| 25    | Crimp/Solder | PX0822/P     | PX0822/S       | Order Separately |

Rear Panel Mounting Connector



PX0709/x/xx

- Mates with Flex Cable Connector
- Rear panel mounting
- Single Hole Fixing
- Pin or Socket Versions
- Poles 2, 3, 4, 6, 7, 9, 12 or 25



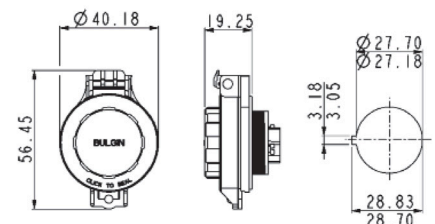
| Poles | Termination  | Pin Contacts | Socket Contact | Contacts         |
|-------|--------------|--------------|----------------|------------------|
| 2     | Screw        | PX0709/P/02  | PX0709/S/02    | Supplied Fitted  |
| 3     | Screw        | PX0709/P/03  | PX0709/S/03    | Supplied Fitted  |
| 3     | Crimp        | PX0708/P/03  | PX0708/S/03    | Supplied Loose   |
| 4     | Screw        | PX0709/P/04  | PX0709/S/04    | Supplied Fitted  |
| 6     | Screw        | PX0709/P/06  | PX0709/S/06    | Supplied Fitted  |
| 7     | Screw        | PX0709/P/07  | PX0709/S/07    | Supplied Fitted  |
| 9     | Crimp        | PX0708/P/09  | PX0708/S/09    | Supplied Loose   |
| 12    | Crimp/Solder | PX0708/P/12  | PX0708/S/12    | Order Separately |
| 25    | Crimp/Solder | PX0708/P/25  | PX0708/S/25    | Order Separately |

Spring Loaded Sealing Cap



PX0713

- IP54 rated
- Spring loaded
- Clip shut to seal
- For use with front of panel mounting connector types

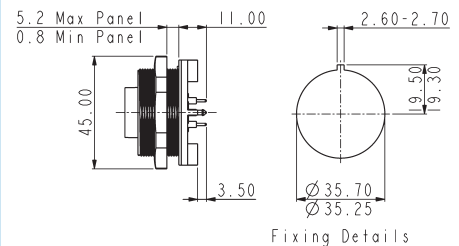


PCB Mounting Connector



PX0707/P/12

- Mates with Flex Cable connector
- Rear panel mounting
- No. poles: 3, 4, 6, 9, 12 or 25
- Pin or socket versions
- Pre-loaded Gold Plated contacts



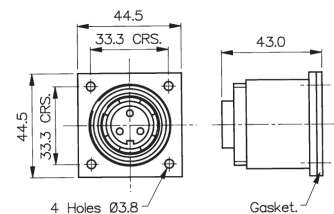
| Poles | Termination | Pin Contacts | Socket Contact | Contacts        |
|-------|-------------|--------------|----------------|-----------------|
| 3     | PCB         | PX0707/P/03  | PX0707/S/03    | Supplied Fitted |
| 4     | PCB         | PX0707/P/04  | PX0707/S/04    | Supplied Fitted |
| 6     | PCB         | PX0707/P/06  | PX0707/S/06    | Supplied Fitted |
| 9     | PCB         | PX0707/P/09  | PX0707/S/09    | Supplied Fitted |
| 12    | PCB         | PX0707/P/12  | PX0707/S/12    | Supplied Fitted |
| 25    | PCB         | PX0707/P/25  | PX0707/S/25    | Supplied Fitted |

Bulkhead Flange Mounting Connector



PX0756/S

- Mates with Flex Cable Connector
- Screw Fixing Flange
- Pin or Socket Versions
- Poles 2, 3, 4, 6, 7, 9, 12, 25
- Supplied with sealing gasket and screw sealing grommets



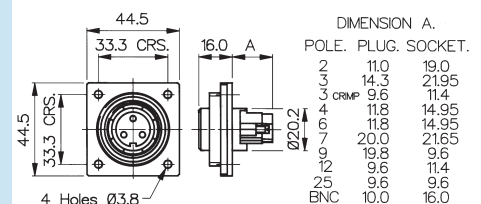
| Poles | Termination  | Pin Contacts | Socket Contact | Contacts         |
|-------|--------------|--------------|----------------|------------------|
| 2     | Screw        | PX0757/P     | PX0757/S       | Supplied Fitted  |
| 3     | Screw        | PX0756/P     | PX0756/S       | Supplied Fitted  |
| 3     | Crimp        | PX0787/P     | PX0787/S       | Supplied Loose   |
| 4     | Screw        | PX0761/P     | PX0761/S       | Supplied Fitted  |
| 6     | Screw        | PX0758/P     | PX0758/S       | Supplied Fitted  |
| 7     | Screw        | PX0760/P     | PX0760/S       | Supplied Fitted  |
| 9     | Crimp        | PX0762/P     | PX0762/S       | Supplied Loose   |
| 12    | Crimp/Solder | PX0798/P     | PX0798/S       | Order Separately |
| 25    | Crimp/Solder | PX0823/P     | PX0823/S       | Order Separately |

Low Profile Flange Mounting Connector



PX0765/S

- Screw Flange Fixing
- Pin or Socket Versions
- Poles 2, 3, 4, 6, 7, 9, 12, 25
- Mates with Flex Cable Connector
- Supplied with sealing gasket and screw sealing grommets



| Poles | Termination  | Pin Contacts | Socket Contact | Contacts         |
|-------|--------------|--------------|----------------|------------------|
| 2     | Screw        | PX0764/P     | PX0764/S       | Supplied Fitted  |
| 3     | Screw        | PX0765/P     | PX0765/S       | Supplied Fitted  |
| 3     | Crimp        | PX0781/P     | PX0781/S       | Supplied Loose   |
| 4     | Screw        | PX0766/P     | PX0766/S       | Supplied Fitted  |
| 6     | Screw        | PX0767/P     | PX0767/S       | Supplied Fitted  |
| 7     | Screw        | PX0768/P     | PX0768/S       | Supplied Fitted  |
| 9     | Crimp        | PX0769/P     | PX0769/S       | Supplied Loose   |
| 12    | Crimp/Solder | PX0797/P     | PX0797/S       | Order Separately |
| 25    | Crimp/Solder | PX0824/P     | PX0824/S       | Order Separately |



#### Coloured Contact Inserts



Coloured Inserts

- ⬡ With or without matching gland nut
- ⬡ Positive visual identification
- ⬡ Available in; Black, Blue, Green, Grey, Light Grey, Red, White and Yellow

#### Contact Inserts Colour Options

| Part No | Suffix Colour |
|---------|---------------|
| Blank   | Black         |
| BL      | Blue          |
| GN      | Green         |
| GY      | Grey          |
| LG      | Light Grey    |
| RD      | Red           |
| WH      | White         |
| YL      | Yellow        |

#### Insert/Gland Nut Combinations

|   |                               |
|---|-------------------------------|
| 1 | Insert and Gland Nut Coloured |
| 2 | Insert Only Coloured          |

E.g. PX0731/P/YL1 = Yellow insert and gland nut

#### Contacts for 12 and 25 Pole Inserts



12 and 25 way contacts

- ⬡ Crimp or Solder Pins and Sockets
- ⬡ Gold Plated
- ⬡ Current ratings:  
12 way: 5A, 50V  
25 way: 1A, 50V

#### Contacts - Solder & Crimp for 12 and 25 pole

| Contacts (for 25 pole)<br>(Supplied in packs of 10) | Solder    | Crimp  |
|-----------------------------------------------------|-----------|--------|
| Pins                                                | SA3180/1  | SA3180 |
| Sockets                                             | SA 3179/1 | SA3179 |
| Contacts (for 12 pole)<br>(Supplied in packs of 10) | Solder    | Crimp  |
| Pins                                                | SA3348/1  | SA3348 |
| Sockets                                             | SA3347/1  | SA3347 |

#### Assembly Tools



PNo 14025 and 13027

- ⬡ Crimp Tools for 3, 9, 12 and 25 pole crimp contacts
- ⬡ Insertion/Extraction Tool for 25 pole contacts

#### Tools

|                                     |                 |
|-------------------------------------|-----------------|
| Crimp Tool (25 pole)                | PNo. 14025/1AMP |
| Crimp Tool (12 pole)                | PNo. 14025      |
| Positioner (12 pole)                | PNo. 14025/5AMP |
| Crimp Tool (9 pole)                 | PNo. 13826      |
| Crimp Tool (3 pole)                 | PNo. 14232      |
| 3 pole positioner                   | PNo. 14232/1    |
| Insertion/Extraction Tool (25 pole) | PNo. 13027      |
| Insertion/Extraction Tool (12 pole) | PNo. 13027/1    |
| Insertion/Extraction Tool (3 pole)  | PNo. 13027/3    |

#### Cable Glands



SA3253

- ⬡ Pack of alternative cable glands to suit cables from 3.5 to 9mm dia.

#### Cable Acceptance - Alternatives

| Gland Diameter | Gland Part No. | Gland Colour                                                | Additional Suffix      |
|----------------|----------------|-------------------------------------------------------------|------------------------|
| 6-8mm          | 12023          | Black                                                       | Standard for 2-12 pole |
| 3.5-5mm        | SA3426         | Grey                                                        | Suffix /04†            |
| 5-7mm          | 12023/1        | White                                                       | Suffix /05             |
| 7-9mm          | 12023/2        | Yellow                                                      | Suffix /07*            |
| Gland Pack     | SA3253         | Pack of 3 glands to suit cables 3.5-5mm, 5-7mm & 7-9mm dia† |                        |

\*Note: 7-9mm gland standard for 25 way, no suffix required.  
†Includes additional black gland cage for 3.5-5mm dia. cable range.

To order connector with alternative cable gland add suffix to part no. e.g. PX0731/P/07 = PX0731 3 pin connector with cable gland to suit 7-9mm dia. cable.

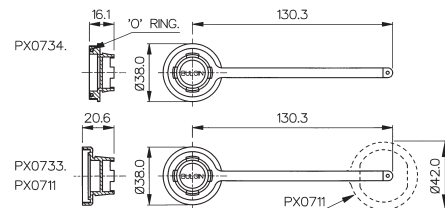
#### Cable Acceptance - Standard as supplied

| No. Contacts | Cable Diameter or Type |
|--------------|------------------------|
| 2-12 Pole    | 6-8mm                  |
| 25 Pole      | 7-9mm                  |

## Sealing Cap and Assembling Tool



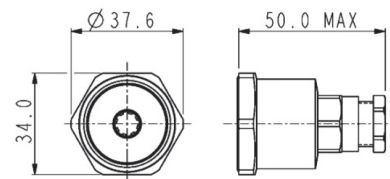
- Maintains IP68 Rating of Unmated Connectors
- Can be used to remove Inserts
- PX0734 for Flex Cable Connector
- PX0733 for In-line Flex, Front Panel, Bulkhead and Flange mount connectors
- PX0711 for PCB and Rear Panel Mount connectors



## Rear of Panel Back Shell



- Provides environmental seal to rear of panel
- Standard cable acceptance 6-8mm, 3.5 to 9mm with alternative glands
- For use on front panel mounting connectors
- Replaces mounting nut in panel connector

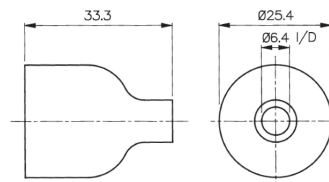


### PVC Insulation Boot



- Shock protection for rear of connector
- Flammability Rating  
UL94V-0
- Fits Front Panel Mount  
Versions only

12855 for panel mounting types only.

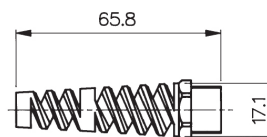


## Cable Support Accessory



- Gives Extra Support to the Cable
- Suitable for 5-7mm and 7-9mm Cable Diameters

12237 provides additional cable support.  
Suitable for 5-7mm and 7-9mm cables.



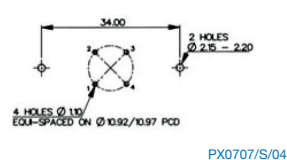
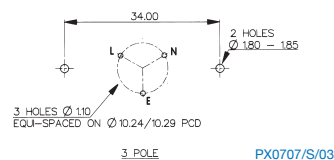
| PX0xxx      | X                     | XX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | XX                                                                                                                                 | X                                                                     |
|-------------|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| Body Styles | Contacts Type         | Cable Acceptance or PCB/Rear Panel Mounting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Insert/Gland Nut Colour                                                                                                            | Insert/Gland Nut Colour Combination                                   |
|             | P = Pin<br>S = Socket | <p>Flex Cable and In-line Flex Connectors cable acceptance use:<br/>Blank = 6-8mm (Black) standard for 2-12 pole</p> <p>04 = 3.5-5mm (Grey)<br/>05 = 5-7mm (White)<br/>07 = 7-9mm (Yellow)<br/>(standard for 25 way, no suffix required)</p> <p>PCB (PX0707) and Rear Panel Mount connectors (PX0708 and PX0709) use:</p> <p>02 = 2 pole      03 = 3 pole<br/>04 = 4 pole      06 = 6 pole<br/>07 = 7 pole      09 = 9 pole<br/>12 = 12 pole     25 = 25 pole</p> <p>Front Panel, Bulkhead and Flange Mount - not required:</p> | <p>Blank = Black<br/>BL = Blue<br/>GN = Green<br/>GY = Grey</p> <p>LG = Light Grey<br/>RD = Red<br/>WH = White<br/>YL = Yellow</p> | <p>1 = Insert and Gland Nut Coloured<br/>2 = Insert only Coloured</p> |

### Examples:

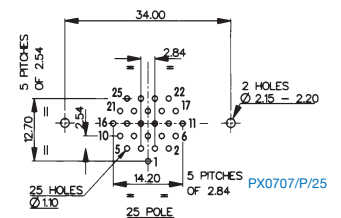
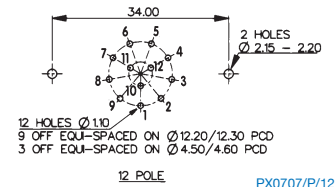
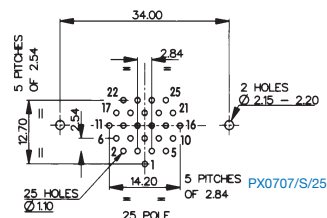
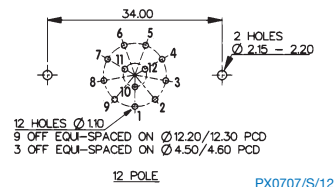
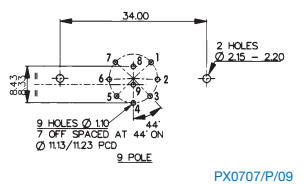
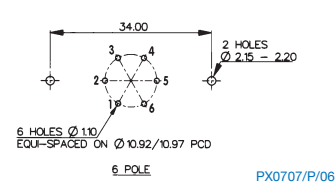
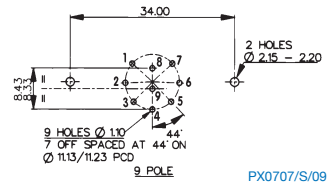
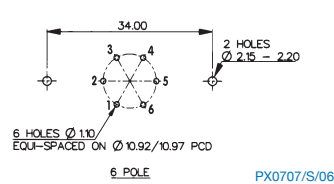
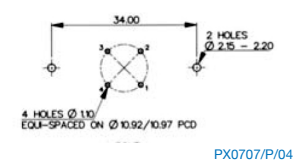
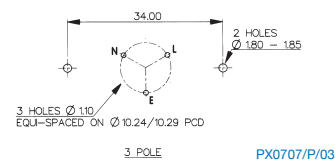
PX0707/P/06= PCB Panel connector, pin contacts, 6 pole  
PX0731/S = Flex Cable connector, socket contacts, 3 pole  
PX0732/P/07/BL2 = In-Line Flex Cable connector, pin contacts, 3 pole, 7-9mm cable acceptance, blue insert

### PCB Layouts

Sockets  
Contact Nos viewed from rear of panel



Pins  
Contact Nos viewed from rear panel rear of panel



## Electrical:

|                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                |      |      |      |     |     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|------|-----|-----|
| No. Poles:                                                                                                                                                                                                                                                                                                                                                  | 2, 3                                                                                                                                                                                                                                                           | 4    | 6, 7 | 9    | 12  | 25  |
| Current Rating:                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                |      |      |      |     |     |
| VDE                                                                                                                                                                                                                                                                                                                                                         | 12A                                                                                                                                                                                                                                                            | 10A  | 5A   | 5A   | 5A  | 1A  |
| UL, CSA                                                                                                                                                                                                                                                                                                                                                     | 10A                                                                                                                                                                                                                                                            | 6A   | 3A   | 5A   | 5A  | 1A  |
| Voltage Rating (ac/dc):                                                                                                                                                                                                                                                                                                                                     | 277V                                                                                                                                                                                                                                                           | 277V | 277V | 150V | 50V | 50V |
| Contact Resistance:                                                                                                                                                                                                                                                                                                                                         | $<10\text{m}\Omega$ (2-9 Pole)<br>$<5\text{m}\Omega$ (12 Pole)<br>$<5\text{m}\Omega$ (25 Pole)                                                                                                                                                                 |      |      |      |     |     |
| Insulation Resistance:                                                                                                                                                                                                                                                                                                                                      | $>10^4\text{M}\Omega$ @ 500V d.c. (2-9 Pole)                                                                                                                                                                                                                   |      |      |      |     |     |
| AC Breakdown voltage:                                                                                                                                                                                                                                                                                                                                       | 4kV Pole - Pole (2-9 Pole)<br>6kV Poles - Panel (Low Profile Flange and Panel Types - 2-9 Pole)<br>7.5kV Poles - Panel (Other Types - 2-9 Pole)                                                                                                                |      |      |      |     |     |
| Operating Temp. Range:                                                                                                                                                                                                                                                                                                                                      | $-20^\circ\text{C}$ to $+70^\circ\text{C}$                                                                                                                                                                                                                     |      |      |      |     |     |
| Approvals:                                                                                                                                                                                                                                                                                                                                                  | E93288 and E337507<br>LR80968-30<br>40023148<br>2011010203500391 - 1 Amp Rated<br>2011010203500393 - 5 Amp Rated<br>2011010203500394 - 10 Amp Rated<br>2011010203500395 - 12 Amp Rated<br><br>Overmoulded cable assemblies approvals to customer requirements. |      |      |      |     |     |
|  UL<br> CSA<br> VDE<br> CCC |                                                                                                                                                                                                                                                                |      |      |      |     |     |

## Material:

|                            |                                                         |
|----------------------------|---------------------------------------------------------|
| Body Mouldings:            | Glass Filled Polyamide UL94HB                           |
| Inserts (2-25 pole):       | Polyamide UL94V-0                                       |
| PX0707                     | Polyamide UL94V-0                                       |
| PX0708                     | Polyamide UL94V-0                                       |
| PX0709                     | Polyamide UL94V-0                                       |
| Overmoulded types:         |                                                         |
| Body Mouldings:            | Polyurethane                                            |
| Flammability Rating:       | UL94V-HB                                                |
| Contacts:                  |                                                         |
| Screw Terminal:            | Brass, Nickel Plated                                    |
| Crimp (9 pole):            | Copper Alloy, Tin Plated                                |
| Crimp/Solder (12+25 Pole): | Copper Alloy, Gold Plated (0.1 $\mu\text{m}$ on Nickel) |
| BNC inserts:               | Brass, Nickel Plated                                    |
| BNC contacts:              | Brass, Silver Plated                                    |
| RoHS                       | Compliant                                               |

## Mechanical:

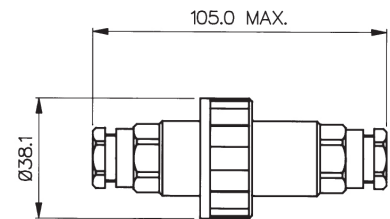
|                                                   |                                                                                                                                                                                   |
|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sealing:                                          | IP69K, Tested in accordance with DIN 40050/Part 9 IP6k9k                                                                                                                          |
|                                                   | IP68, EN 60529:1992+A2:2013 Tested @ 1.054kg/sq.cm. (15lb/sq.in.) 10m depth for 2 weeks.<br>EN 60529:1992 +A2:2013 Tested @ 9.84kg/sq.cm. (140lb/sq.in.) 100m depth for 12 hours. |
| Salt Mist:                                        | EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1                                                                                                                   |
| Cable Acceptance:                                 |                                                                                                                                                                                   |
| 2-12 Pole - standard gland:                       | 6-8mm dia                                                                                                                                                                         |
| 2-12 Pole - alternative glands:                   | 3.5-9mm dia                                                                                                                                                                       |
| 25 Pole - standard gland:                         | 7-9mm dim                                                                                                                                                                         |
| 25 Pole - alternative glands:                     | 3.5-7mm dim                                                                                                                                                                       |
| Contact Accommodation:                            |                                                                                                                                                                                   |
| 2 and 3 pole screw terminals:                     | 4mm <sup>2</sup> (12AWG) max                                                                                                                                                      |
| 3 pole crimp:                                     | 1.0-1.5mm <sup>2</sup> (14-18AWG) max                                                                                                                                             |
| 4, 6 and 7 pole:                                  | 1.5mm <sup>2</sup> (16AWG) max                                                                                                                                                    |
| 9 pole:                                           | 0.12-0.21mm <sup>2</sup> (24-26AWG)                                                                                                                                               |
| 12 pole:                                          | 0.32mm <sup>2</sup> (22-26AWG) max                                                                                                                                                |
| 25 pole:                                          | 0.12-0.21mm <sup>2</sup> (24-26AWG)                                                                                                                                               |
| Terminations:                                     |                                                                                                                                                                                   |
| 2-7 Pole:                                         | Screw Terminals                                                                                                                                                                   |
| 3 Pole:                                           | Screw Terminals & Crimp                                                                                                                                                           |
| 9 Pole:                                           | Crimp Contacts                                                                                                                                                                    |
| 12 Pole:                                          | Crimp & Solder Contacts                                                                                                                                                           |
| 25 Pole:                                          | Crimp & Solder Contacts                                                                                                                                                           |
| Tightening Torques:                               |                                                                                                                                                                                   |
| Flex Mounting/In-Line:                            | Gland Nut: 1.13Nm (10lbf.in.)                                                                                                                                                     |
| Panel Mounting:                                   | Rear Fixing Nut: 1.7Nm (15lbf.in.)<br>Front Fixing Nut: 1.7Nm (15lbf.in.)                                                                                                         |
| Surface/Bulkhead and Low Profile Flange Mounting: | 4 Fixing Screws (using washers supplied) 0.34Nm (3lbf.in.)<br>1.13Nm (10lbf.in.)                                                                                                  |
| Sealings Caps/Locking Ring:                       |                                                                                                                                                                                   |
| Rear thread, Front Panel Connector:               | M27 x 1.0-6H                                                                                                                                                                      |
| Thread, Front Panel Connector:                    | M35 x 1.0-6H                                                                                                                                                                      |

Cable Joiner



PX0777

- IP68 & IP69k Rating
- For Sealed In-Line Connections
- Standard Cable Acceptance 6-8mm
- Cable Range 3.5-9mm (using alternative glands)
- Supplied with 4, 6 or 8 way
- Terminal Block
- Available Moulded in Black or Orange



| Specifications           | PX0777                                                                              | PX0777/4POLE, 6POLE, 8POLE                                                          | POLE Configurations                                                                   |
|--------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Rating:                  | 16A, 250V a.c.                                                                      | 10A, 250V a.c.                                                                      |                                                                                       |
| Wire Termination:        | 3 way Terminal Block                                                                | 4, 6, 8 way Terminal Block                                                          |    |
| Conductor Accommodation: | 2.5mm <sup>2</sup> max (14AWG)                                                      | 1.5mm <sup>2</sup> max (16AWG)                                                      |   |
| Cable Acceptance:        | 6-8mm dia<br>alternative glands available on request                                | 6-8mm dia<br>alternative glands available on request                                |  |
| Material:                | Glass Filled Polyamide UL94-HB                                                      | Glass Filled Polyamide UL94-V0                                                      |                                                                                       |
| Sealing:                 | IP68 to BSEN 60529 : 1992<br>1.054kg/sq.cm. (15lbs/sq.in.)<br>10m depth for 2 weeks | IP68 to BSEN 60529 : 1992<br>1.054kg/sq.cm. (15lbs/sq.in.)<br>10m depth for 2 weeks |                                                                                       |
| Salt Mist                | IP69k to DIN 40050-9                                                                | IP69k to DIN 40050-9                                                                |                                                                                       |
| Operating Temp. Range:   | EN60068-2-52 Test Kb Salt Mist (Cyclic)<br>Marine Severity Level 1                  | EN60068-2-52 Test Kb Salt Mist (Cyclic)<br>Marine Severity Level 1                  |                                                                                       |
| Colour:                  | -20°C to +70°C                                                                      | -20°C to +70°C                                                                      |                                                                                       |
|                          | Black<br>Orange (Add /OR to PNo.)                                                   | Black<br>Orange (Add /OR to PNo.)                                                   |                                                                                       |
| RoHS                     | Compliant                                                                           | Compliant                                                                           |                                                                                       |

#### Examples

**PX0777** – 3 Pole 6-8mm Black.

**PX0777/04** – 3 Pole 3.5-5.0mm Black.

**PX0777/04/OR** – 3 Pole 3.5-5.0mm Orange.

**PX0777/4POLE** – 4 Pole 6-8mm Black.

**PX0777/6POLE/04** – 6 Pole 3.5-5.0mm Black.

**PX0777/8POLE/04/OR** – 8 Pole 3.5-5.0mm Orange.

| PX0777  | / | XPOLE                                                                | / | XX                                                        | / | XX                           |
|---------|---|----------------------------------------------------------------------|---|-----------------------------------------------------------|---|------------------------------|
| Part No |   | Blank = 3 Pole<br>4POLE = 4 Pole<br>6POLE = 6 Pole<br>8POLE = 8 Pole |   | Blank = 6-8mm<br>04 = 3.5-5mm<br>05 = 5-7mm<br>07 = 7-9mm |   | Blank = Black<br>OR = Orange |





- ⬢ Water and dustproof to IP68 when mated
- ⬢ IP68 rating tested at 1.054kg/sq cm (15lb/sq in) 10m depth for 2 weeks
- ⬢ 2, 3, 4 or 6 pole screw terminal inserts
- ⬢ 3 or 8 pole solder or crimp inserts
- ⬢ 5 body styles, Flex, Flex In-Line, Panel (2 styles), Panel Side Entry
- ⬢ 50Ω or 75Ω BNC inserts
- ⬢ 5A, 380V a.c. 3 & 8 way solder/crimp terminals
- ⬢ 10A, 250V a.c. 2 & 3 way screw terminals
- ⬢ 6A, 250V a.c. 4 way screw terminal
- ⬢ 3A, 250V a.c. 6 way screw terminals
- ⬢ EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1
- ⬢ Plug or socket connection in each body style
- ⬢ Cable range from 3.5mm - 9mm
- ⬢ Diameter over coupling ring 26mm
- ⬢ Positive locating keyways - cannot be mis-mated
- ⬢ Sealing caps available to maintain IP68 rating of unmated connectors
- ⬢ Flammability rating UL94V-0 material
- ⬢ Leading earth pin is on 3, 4 & 6 pole screw terminal versions only
- ⬢ Compact design
- ⬢ Easy assembly - no special tools required on screw terminal versions
- ⬢ UL approval

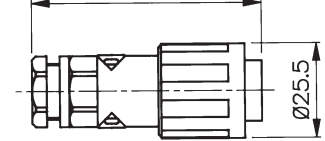
#### Flex Cable Connector



PX0800 - shown with insert

- PX0800 Connector body
- Mates with Flex In-line or Panel Mounting versions
- Screw locking ring
- Suitable for Pin or Socket inserts
- Cable Acceptance 3.5-9mm (Standard 5-7mm)
- Contact inserts supplied separately

61.5 Max. Depending on Cable Dia. / Pin or Socket Carrier.



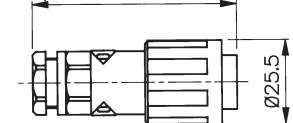
#### Inline Flex Cable Connector



PX0801 - shown with insert

- PX0801 Connector body
- Mates with PX0800 - Flex Cable connector
- Suitable for Pin or Socket inserts
- Cable Acceptance 3.5-9mm (Standard 5-7mm)
- Contact inserts supplied separately

61.5 Max. Depending on Cable Dia. / Pin or Socket Carrier.



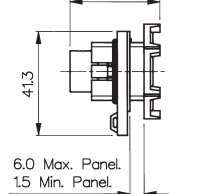
#### Panel Mounting



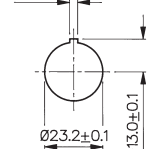
PX0802 - shown with insert

- PX0802 Connector body
- Mates with PX0800 - Flex Cable connector
- Single hole fixing
- Suitable for Pin or Socket inserts
- Contact inserts supplied separately

37.0 Max. Depending on Pin or Socket Carrier.



3.2 $\frac{+0.1}{-0.1}$



Fixing Details.

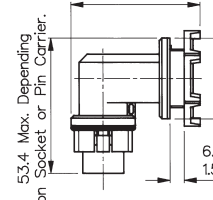
#### Panel Mounting



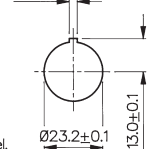
PX0803 - shown with insert

- PX0803 Connector body
- Mates with PX0800 - Flex Cable connector
- Right angle cable entry
- Single hole fixing
- Suitable for Pin or Socket inserts
- Contact inserts supplied separately

53.4 Max. Depending on Panel Thickness.



3.2 $\frac{+0.1}{-0.1}$



Fixing Details.

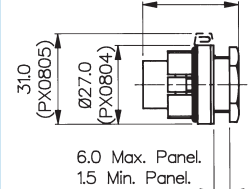
#### Panel Mounting



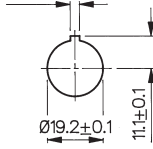
PX0805 - shown with insert

- PX0804 and PX0805 Connector bodies
- Mates with PX0800 - Flex Cable connector
- PX0804 without sealing cap retaining clip, PX0805 with sealing cap retaining clip
- Single hole fixing
- Suitable for Pin or Socket inserts
- Contact inserts supplied separately

32.8 Max. Depending on Pin or Socket Carrier.



3.2 $\frac{+0.1}{-0.1}$



Fixing Details.

Screw Terminal Inserts



- 2, 3, 4 and 6 Poles
- Fits all Body Styles
- Leading Earth Pin on 3, 4 and 6 pole inserts
- Nickel Plated contacts

Screw Terminal Inserts - fits all body styles

| No. poles | Sockets | Pins   |
|-----------|---------|--------|
| 2         | SA3319  | SA3320 |
| 3         | SA3229  | SA3230 |
| 4         | SA3242  | SA3241 |
| 6         | SA3244  | SA3243 |

Contact Carrier Inserts



Inserts shown with contacts fitted

- For Solder or Crimp Contacts
- 3 or 8 Pin
- Fits all Body Styles
- Contacts Supplied Separately

Solder & Crimp Contact Carrier Inserts - fit all body styles.

| No. poles | Solder    | Colour | Crimp   | Colour |
|-----------|-----------|--------|---------|--------|
| 8 Pin     | 12734/1   | Black  | 12734   | Grey   |
| 8 Socket  | 12735/1   | Black  | 12735   | Grey   |
| 3 Pin     | 12734/3/1 | Black  | 12734/3 | Grey   |
| 3 Socket  | 12735/3/1 | Black  | 12735/3 | Grey   |

Contacts, Polarising/Blanking Pins



- Gold Plated contacts
- Solder or Crimp
- Polarising/Blanking pins

Contacts - Solder & Crimp - for contact carrier inserts

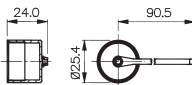
| Contacts (Supplied in packs of 10)                                     | Solder   | Crimp  |
|------------------------------------------------------------------------|----------|--------|
| Pins                                                                   | SA3148/1 | SA3148 |
| Sockets                                                                | SA3149/1 | SA3149 |
| Polarising/Blanking Pins                                               | SA3147   |        |
| Contact Insertion Tool:<br>Must be used to load contacts into inserts. | SA3150   |        |
| Crimping Tool                                                          | SA2800   |        |

Sealing Caps



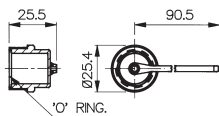
To maintain IP rating

PX0810



PX0810  
Fits PX0801, PX0802, PX0803, PX0804 & PX0805. Ensure "O" Ring is in place on main body.

PX0811



PX0811  
Fits PX0800. Ensure "O" Ring is in place in cap.

| Electrical                                                                               | Solder/Crimp Terminals          | Screw Terminals | BNC     |
|------------------------------------------------------------------------------------------|---------------------------------|-----------------|---------|
| No Poles:                                                                                | 3, 8                            | 2, 3            | 6       |
| Current Rating:                                                                          | 5A                              | 10A             | 3A      |
| Voltage Rating:                                                                          | 380V ac                         | 250V ac         | 250V ac |
| Contact Resistance:                                                                      | <5mΩ                            |                 |         |
| Insulation Resistance:                                                                   | >10 <sup>6</sup> MΩ @ 500V d.c. |                 |         |
| Voltage Proof:                                                                           | 2kV @ 50Hz                      |                 |         |
| Operating Temp. Range:                                                                   | -20°C to +70°C                  |                 |         |
| Approvals:                                                                               |                                 |                 |         |
|  E214972 |                                 |                 |         |

| Materials       | Solder/Crimp Terminals                      | Screw Terminals      | BNC                   |
|-----------------|---------------------------------------------|----------------------|-----------------------|
| Body Mouldings: | Polyamide UL94V-0                           | Polyamide UL94V-0    |                       |
| Inserts:        | Polyamide UL94V-0                           | Polyamide UL94V-0    |                       |
| Contacts:       | Copper Alloy, Gold Plated (0.1µm) on Nickel | Brass, Nickel Plated | Brass, Silver Plated. |
| O Rings:        | Nitrile                                     |                      |                       |
| <b>RoHS</b>     | Compliant                                   | Compliant            | Compliant             |

| Mechanical                       | Solder/Crimp Terminals                                                                                                | Screw Terminals                                                 | BNC                                         |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|---------------------------------------------|
| Sealing:                         | Protection Classification IP68, EN 60529:1992+A2:2013 Tested @ 1.054kg/sq.cm. (15lb/sq.in.)<br>10m depth for 2 weeks. |                                                                 |                                             |
| Salt Mist:                       | EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1                                                       |                                                                 |                                             |
| Cable Acceptance                 | 5-7.00mm dia - standard gland<br>3.5-9.00mm dia - alternative glands                                                  |                                                                 |                                             |
| Contact Accommodation:           | 0.2 - 0.5mm <sup>2</sup> (20 - 24 AWG)                                                                                | 1mm <sup>2</sup> max (18 AWG)                                   | 50Ω: RG58/CU,<br>URM43, URM76<br>75Ω: URM70 |
| Insertion Force (typical):       | 3 way: 5N (1.1lbf)<br>8 way: 14N (3.1lbf)                                                                             | 3 way: 45N (10lbf)<br>4 way: 50N (11lbf)<br>6 way: 140N (31lbf) |                                             |
| Withdrawal Force (typical):      | 3 way: 3N (0.66lbf)<br>8 way: 12N (2.6lbf)                                                                            | 3 way: 32N (7lbf)<br>4 way: 40N (9lbf)<br>6 way: 150N (34lbf)   |                                             |
| Tightening Torques               |                                                                                                                       |                                                                 |                                             |
| Gland Nut, PX0800, 801:          | 1.13Nm (10lbf in)                                                                                                     |                                                                 |                                             |
| Rear Nut, PX0802, 803, 804, 805: | 0.7Nm min, 1.7Nm max (6.2lbf in min, 15lbf in max)                                                                    |                                                                 |                                             |
| Sealing Cap, PX0810, 811:        | 0.23Nm min, 1.13Nm max (2lbf in min, 10lbf in max)                                                                    |                                                                 |                                             |

| How to order                                                                       |                                                                                                                         | Cable Glands                                                                                                                                                                                                     |                |                                                            |                    |
|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------------------------------------------------------|--------------------|
|  | Choose body type, check cable diameter and sealing gland size.                                                          | Cable gland for 5-7mm fitted as standard.<br>BNC Insert Kit includes gland & washer to fit coax cable.                                                                                                           |                |                                                            |                    |
|  | Determine contact carrier inserts. Choose number of poles, and type of contacts (solder, crimp, screw terminal or BNC). |                                                                                                                                                                                                                  |                |                                                            |                    |
|  | Choose pins or sockets. Solder and crimp contacts are supplied separately in packs of ten.                              | Cable Diameter                                                                                                                                                                                                   | Gland Part No. | Gland Colour                                               | Additional Suffix  |
|  | Choose polarising/blanking pins. If required for solder/crimp contact inserts. Supplied in packs of ten.                | 5-7mm                                                                                                                                                                                                            | 12023/1        | White                                                      | Fitted as standard |
|                                                                                    |                                                                                                                         | 3.5-5mm                                                                                                                                                                                                          | SA3426         | Grey                                                       | Suffix /04†        |
|                                                                                    |                                                                                                                         | 6-8mm                                                                                                                                                                                                            | 12023          | Black                                                      | Suffix /06         |
|                                                                                    |                                                                                                                         | 7-9mm                                                                                                                                                                                                            | 12023/2        | Yellow                                                     | Suffix /07         |
|  | Is an insertion tool required (for solder or crimp contacts)?                                                           | Gland Pack                                                                                                                                                                                                       | PX0812         | Pack of 3 glands to suit cables 3.5-5mm, 6-8mm, 7-9mm dia† |                    |
|  | Is a crimp tool required?                                                                                               |                                                                                                                                                                                                                  |                |                                                            |                    |
|  | Is a sealing cap required?                                                                                              | To order body with alternative cable gland add suffix to part no. e.g. PX0800/06 = PX0800 body with cable gland to suit 6-8mm dia. cable.<br>†Includes additional black gland cage for 3.5-5mm dia. cable range. |                |                                                            |                    |



- ⬢ IP68 rating tested at 1.054kg/sq cm (15lb/sq in) 10m depth for 2 weeks
- ⬢ IP69K, Tested in accordance with DIN 40050/Part 9 IP6k9k
- ⬢ 2 and 3 pole - 8A, 250V rating
- ⬢ 4, 6 and 8 pole - 5A, 125V rating
- ⬢ 10 and 12 pole - 1A, 50V rating
- ⬢ 2.5mm contact engagement for electrical integrity 'Scoop proof' contacts
- ⬢ Contact inserts are part of body moulding
- ⬢ Cable range from 3 to 7mm
- ⬢ Overall length (flex + flex in-line) 80mm
- ⬢ Gold plated contacts
- ⬢ Diameter over coupling ring 19.1mm
- ⬢ Pre-wired, overmoulded cable assemblies
- ⬢ Flex, Flex In-Line, Front Panel, Rear Panel and PCB mounting body styles
- ⬢ Plug and Socket versions in all body styles
- ⬢ Flame Retardant moulding material - Polyamide UL94-V0
- ⬢ Contacts supplied separately (except PCB versions)
- ⬢ Sealing caps available to maintain IP68 rating
- ⬢ Secure sealing system
- ⬢ Crimp and solder contacts
- ⬢ PCB mounting connector supplied with contacts pre-loaded
- ⬢ Front and rear panel mounting panel connectors
- ⬢ CCC, UL, CSA and VDE approvals
- ⬢ EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1

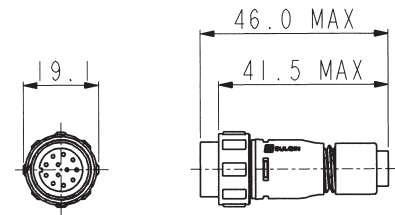


Flex Cable Connector



PX0410

- Mates with Flex In-line or Panel mounting versions PX0401, PX0411, PX0412 & PX0413
- Pin or socket
- 2, 3, 4, 6, 8, 10 or 12 pole
- Screw locking ring
- Contacts supplied separately

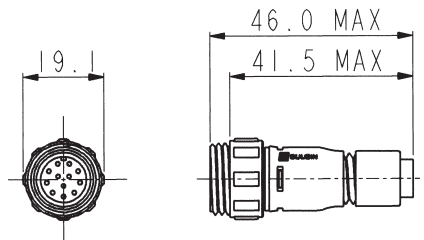


Inline Flex Cable Connector



PX0411

- Mates with Flex Cable connectors PX0400, PX0402 & PX0410
- Pin or socket
- 2, 3, 4, 6, 8, 10 or 12 pole
- For in-line cable connection
- Contacts supplied separately

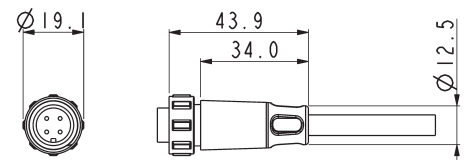


Pre Wired Flex Cable Connector



PX0400

- Overmoulded Flex connector for pre-wired cable assemblies
- Pin or socket
- Cable range 2.5 -9.0mm o/d
- 2, 3, 4, 6, 8, 10 or 12 pole
- Mates with PX0401 & PX0411 Flex In-Line connectors and PX0412 & PX0413 panel mounting connectors

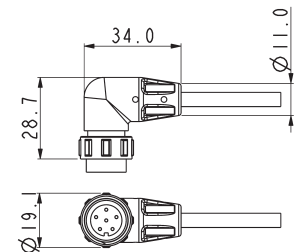


Pre Wired Flex Cable Connector



PX0402

- Right-angled overmoulded Flex connector for pre-wired cable assemblies
- Pin or socket
- Cable range 2.5 -9.0mm o/d
- 2, 3, 4, 6, 8, 10 or 12 pole
- Mates with PX0401 & PX0411 Flex In-Line connectors and PX0412 & PX0413 panel mounting connectors

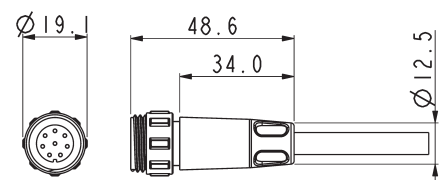


Pre Wired Inline Flex Connector



PX0401

- Overmoulded Flex connector for pre-wired cable assemblies
- Pin or socket
- Cable range 2.5 -9.0mm o/d
- 2, 3, 4, 6, 8, 10 or 12 pole
- Mates with PX0400, PX0402 & PX0410 Flex connectors

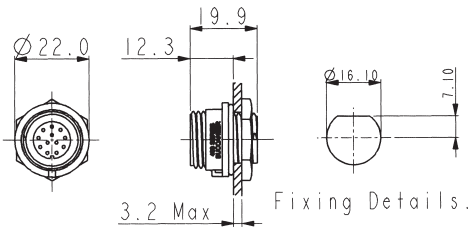


Front Panel Mounting Connector



PX0412

- Mates with Flex Cable connectors PX0410, PX0400 & PX0402
- Front Panel mounting
- Single hole fixing
- Contacts supplied separately
- 2, 3, 4, 6, 8, 10 or 12 pole

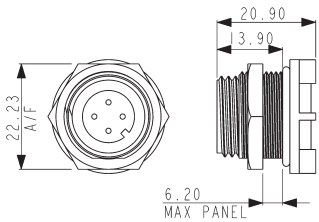


Rear Panel Mounting Connector



PX0413

- Mates with Flex Cable connector PX0410, PX0400 & PX0402
- Rear Panel mounting
- Single hole fixing
- Contacts supplied separately
- 2, 3, 4, 6, 8, 10 or 12 pole

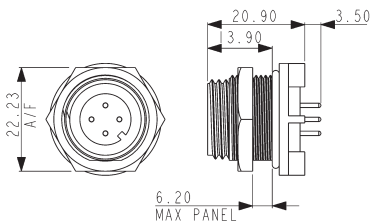


PCB Mounting Connector



PX0413

- Mates with Flex Cable connector PX0410, PX0400 & PX0402
- PCB Rear Panel mounting
- Straight PC spills
- Supplied with pre-loaded gold plated contacts
- 2, 3, 4, 6, 8, 10 or 12 pole



Sealing Caps and Accessories



PX0480 PX0480/1 PX0481 PX0484

- Maintains IP68 Rating of Unmated Connectors
- PX0480: Fits PX0412 (panel mounting)
- PX0480/1: Fits PX0401 & PX0411 (flex in-line)
- PX0481: Fits PX0400, PX0402 & PX0410 (flex connector)
- PX0484: Fits PX0413 (PCB and rear panel mount)

Gland Packs

| Part No | Description                                                                         |
|---------|-------------------------------------------------------------------------------------|
| PX0482  | Pack of 4 pairs cable glands and collets to suit cables from 3.0 to 5.0mm diameter. |
| PX0483  | Pack of 4 pairs cable glands and collets to suit cables from 5.0 to 7.0mm diameter. |

#### Crimp Contacts

| Pole    | Current Rating | Pin    | Socket | Pack Qty | Cable Acceptance (dia) |
|---------|----------------|--------|--------|----------|------------------------|
| 2, 3    | 8A             | SA3350 | SA3349 | 10       | 20 - 24 AWG            |
| 4, 6, 8 | 5A             | SA3348 | SA3347 | 10       | 22 - 26 AWG            |
| 10, 12  | 1A             | SA3180 | SA3179 | 10       | 24 - 28 AWG            |

#### Solder Contacts

| Pole    | Current Rating | Pin      | Socket   | Pack Qty | Cable Acceptance (dia) |
|---------|----------------|----------|----------|----------|------------------------|
| 2, 3    | 8A             | SA3350/1 | SA3349/1 | 10       | 20 - 24 AWG            |
| 4, 6, 8 | 5A             | SA3348/1 | SA3347/1 | 10       | 22 - 26 AWG            |
| 10, 12  | 1A             | SA3180/1 | SA3179/1 | 10       | 24 - 28 AWG            |

#### Insertion / Extraction

|                           | Poles | Contact Rating | Colour | Part No |
|---------------------------|-------|----------------|--------|---------|
| Insertion/Extraction Tool | 2,3   | 8A             | Blue   | 13027/2 |
| Insertion/Extraction Tool | 4,6,8 | 5A             | Red    | 13027/1 |
| Insertion/Extraction Tool | 10,12 | 1A             | Green  | 13027   |

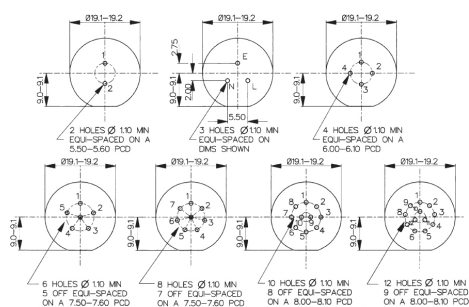
#### Crimp tools

|                                              | Poles | Contact Rating | Colour | Part No    |
|----------------------------------------------|-------|----------------|--------|------------|
| Positioner                                   | 2,3   | 8A             | Blue   | 14025/8AMP |
| Positioner                                   | 4,6,8 | 5A             | Red    | 14025/5AMP |
| Positioner                                   | 10,12 | 1A             | Green  | 14025/1AMP |
| 8 Indent Crimp Tool for use with positioners |       |                |        | 14025      |

#### PX0413 PCB Contact Layout

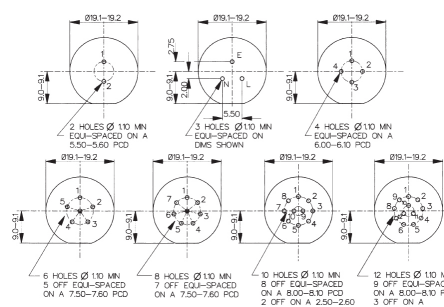
##### Sockets

Contact numbers viewed from rear of panel



##### Plugs

Contact numbers viewed from rear of panel



2 pole  
(8 Amp)



3 pole  
(8 Amp)



4 pole  
(5 Amp)



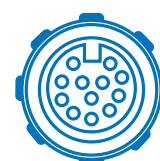
6 pole  
(5 Amp)



8 pole  
(5 Amp)



10 pole  
(1 Amp)



12 pole  
(1 Amp)

## Electrical:

|                         |                                   |           |          |
|-------------------------|-----------------------------------|-----------|----------|
| No. Poles:              | 2, 3                              | 4, 6, 8   | 10, 12   |
| Current Rating:         | 8A                                | 5A        | 1A       |
| Voltage Rating (ac/dc): | 250Vac/dc                         | 125Vac/dc | 50VAc/dc |
| Contact Resistance:     | <5mΩ                              |           |          |
| Insulation Resistance:  | >10 <sup>9</sup> MΩ (@ 500V d.c.) |           |          |
| AC Breakdown voltage:   | 2.5kV                             |           |          |

|                        |                |
|------------------------|----------------|
| Operating Temperature: |                |
| Flex and panel types   | -40°C to +80°C |
| Overmoulded            | -20°C to +60°C |

## Approvals:

|                                                                                      |                                                                  |
|--------------------------------------------------------------------------------------|------------------------------------------------------------------|
|  UL  | E214972                                                          |
|  CSA | 1273303                                                          |
|  VDE | 40002226                                                         |
|  CCC | 2011010203500398 – 1 Amp Rated                                   |
|                                                                                      | 2011010203500399 – 5 Amp Rated                                   |
|                                                                                      | 2011010203500400 – 8 Amp Rated                                   |
|                                                                                      | Overmoulded cable assemblies approvals to customer requirements. |

## Material:

|                                                                                    |                           |
|------------------------------------------------------------------------------------|---------------------------|
| Flex and panel types:                                                              |                           |
| Body Mouldings:                                                                    | Polyamide                 |
| Flammability Rating:                                                               | UL94V-0                   |
| UV Resistance:                                                                     | To EN 50021:1999          |
| Overmoulded types:                                                                 |                           |
| Body Mouldings:                                                                    | Polyurethane              |
| Flammability Rating:                                                               | UL94V-HB                  |
| Contacts:                                                                          | Copper alloy, Gold plated |
| O Rings:                                                                           | Nitrile                   |
| Panel Sealing O Ring:                                                              | Nitrile                   |
|  | Compliant                 |

## Mechanical:

|                             |                                                                                      |
|-----------------------------|--------------------------------------------------------------------------------------|
| Sealing:                    | IP69K, Tested in accordance with DIN 40050/Part 9 IP6k9k                             |
|                             | IP68, EN60529:1992+A2:2013 tested @ 1.054kg/sq cm (15lb/sq in) 10m depth for 2 weeks |
| Salt Mist:                  | EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1                      |
| Cable Acceptance:           | 3.0 - 7.0mm                                                                          |
| Contact Accommodation:      | 2, 3 pole, 20 - 24 AWG<br>4, 6, 8 pole, 22 - 26 AWG<br>10, 12 pole, 24 - 28 AWG      |
| Termination:                | Crimp, solder and PCB                                                                |
| Insertion/Withdrawal Force: |                                                                                      |
| No. poles:                  | 2 3 4 6 8 10 12                                                                      |
| Insertion Force (typ):      | 19N 25N 27N 27N 28N 55N 62N                                                          |
| Withdrawal Force (typ):     | 12N 17N 17N 21N 22N 25N 29N                                                          |
| Tightening Torques:         |                                                                                      |
| Panel mount (PX0412)        |                                                                                      |
| Rear fixing nut:            | 1.0-1.1Nm (9lbf.in.)                                                                 |
| Panel mount (PX0413)        |                                                                                      |
| Front fixing nut:           | 1.0-1.1Nm (9lbf.in.)                                                                 |
| Cable Retention force:      |                                                                                      |
| 3.0mm dia                   | 60N                                                                                  |
| 4.0 to 7.0mm dia            | 80N                                                                                  |
| Rear panel thread PX0412:   | M16x1.5                                                                              |
| Panel thread PX0413:        | 18.97x26TPI Whitworth form to BS84 med fit                                           |

## Dimensions:

Overall dimensions of connectors when mated together

|                         |        |
|-------------------------|--------|
| Flex + Flex In-Line     | 80mm   |
| Dia. over coupling ring | 19.1mm |

Dia. over coupling ring

| PX04 xx                                                                                                                                                                               | / | XX                                                                                                                                         | X                                                               | / | XXXX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Body Styles</b><br><br><b>PX0410</b> = Flex body<br><b>PX0411</b> = Flex in-line body<br><b>PX0412</b> = Front panel mounting body<br><b>PX0413</b> = Rear panel/PCB mounting body |   | <b>Number Contacts</b><br><br>02 = 2 pole,<br>03 = 3 pole,<br>04 = 4 pole,<br>06 = 6 pole<br>08 = 8 pole,<br>10 = 10 pole,<br>12 = 12 pole | <b>Contact Type</b><br><br><b>P</b> = Pin,<br><b>S</b> = Socket |   | <b>For PX0410 and PX0411 cable connectors</b><br><b>- Cable Entry Size:</b><br><br><b>3035</b> = 3.0 - 3.5mm (Light Grey)<br><b>3540</b> = 3.5 - 4.0mm (Grey)<br><b>4045</b> = 4.0 - 4.5mm (Green)<br><b>4550</b> = 4.5 - 5.0mm (Red)<br><br><b>5055</b> = 5.0 - 5.5mm (Yellow)<br><b>5560</b> = 5.5 - 6.0mm (Blue)<br><b>6065</b> = 6.0 - 6.5mm (White)<br><b>6570</b> = 6.5 - 7.0mm (Black)<br><br>Cable gland and collet supplied in colour coded pairs.<br><br>For PX0413 PCB/Rear Panel Mount:<br>PC = Pre-loaded PC pins<br>Blank = no pins supplied<br><br>For PX0412 Front Panel Mount:<br>Suffix not required - leave blank |

**Examples:**

**PX0410/10S/4045** = Flex cable connector, 10 socket contacts with gland and collet for cables between 4.0 and 4.5mm diameter (supplied less contacts).  
**PX0412/08P** = Front panel mounting connector, 8 pin contacts (supplied less contacts).  
**PX0413/06P** = Rear panel mounting connector, for 6 pin contacts (supplied less contacts).  
**PX0413/04P/PC** = Rear panel/PCB connector, 4 pin contacts, PCB mounting (supplied with contacts loaded).





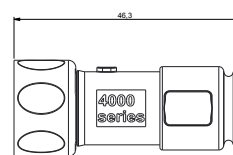
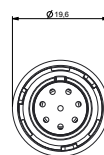
- ⬢ Sealed to IP66 IP68 and IP69K when mated
- ⬢ IP68 rating tested at 1.054kg/sq cm (15lb/sq in) 10m depth for 2 weeks
- ⬢ 3, 8 & 12 pole configuration
- ⬢ Power ratings up to 13A, 600V
- ⬢ Cable range from 3 to 7mm
- ⬢ Diameter over coupling ring 19.7mm
- ⬢ Flex, Flex In-Line, Rear Panel and PCB mounting body styles
- ⬢ Colour coded O-rings & washers for easy identification purposes
- ⬢ Plug and Socket versions in all body styles
- ⬢ Flame Retardant moulding material - Polyamide UL94-V0
- ⬢ Contacts supplied separately (except PCB versions)
- ⬢ Sealing caps available to maintain IP68 rating
- ⬢ Crimp and solder contacts
- ⬢ UL, CSA and VDE approvals (pending)
- ⬢ EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1
- ⬢ EN60068-2-64 Vibration Resistance

Flex Cable Connector



PXP4010

- ⬡ Mates with Flex In-line or Panel mounting versions PXP4011, PXP4013
- ⬡ Pin or socket
- ⬡ 3, 8, or 12 pole
- ⬡ ¼ turn locking ring
- ⬡ Contacts supplied separately

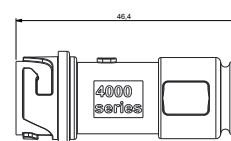


Inline Flex Cable Connector

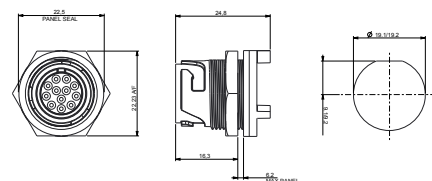


PXP4011

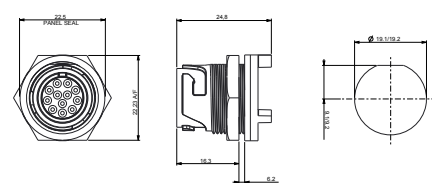
- ⬡ Mates with Flex Cable connector PXP4010
- ⬡ Pin or socket
- ⬡ 3, 8, or 12 pole
- ⬡ For in-line cable connection
- ⬡ Contacts supplied separately



- Mates with Flex Cable connector PXP4010, PXP4011
- Rear Panel mounting
- Pin or socket
- Single hole fixing
- Contacts supplied separately
- 3, 8 or 12 pole



- Mates with Flex Cable connector PXP4010, PXP4011
- Pin or socket
- PCB Rear Panel mounting
- Straight PC spills
- Supplied with pre-loaded gold plated contacts
- 3, 8, or 12 pole



- Maintains IP-sealed rating of unmated connectors

| Part no. | Description                                |
|----------|--------------------------------------------|
| PXP4081  | Sealing cap for use with PXP4010 & PXP4040 |
| PXP4082  | Sealing cap for use with PXP4011           |
| PXP4083  | Sealing cap for use with PXP4013 & PXP4043 |

| Part no.     | Description                                                                         |
|--------------|-------------------------------------------------------------------------------------|
| PXP4088/0305 | Pack of 4 pairs cable glands and collets to suit cables from 3.0 to 5.0mm diameter. |
| PXP4088/0507 | Pack of 4 pairs cable glands and collets to suit cables from 5.0 to 7.0mm diameter. |

| Part no.   | Description                            |
|------------|----------------------------------------|
| PXP4089/WH | White coloured O-ring and washer pack  |
| PXP4089/RD | Red coloured O-ring and washer pack    |
| PXP4089/BL | Blue coloured O-ring and washer pack   |
| PXP4089/YL | Yellow coloured O-ring and washer pack |
| PXP4089/GN | Green coloured O-ring and washer pack  |

#### Crimp Contacts

| Pole | Current Rating | Pin    | Socket | Pack Qty | Cable Acceptance (dia) |
|------|----------------|--------|--------|----------|------------------------|
| 3    | 13A /*10A      | SA3350 | SA3349 | 10       | 16 - 18 AWG            |
| 8    | 8A /*4A        | SA3348 | SA3347 | 10       | 18 - 20 AWG            |
| 12   | 3A /*2A        | SA3180 | SA3179 | 10       | 22 - 24 AWG            |

#### Solder Contacts

| Pole | Current Rating | Pin      | Socket   | Pack Qty | Cable Acceptance (dia) |
|------|----------------|----------|----------|----------|------------------------|
| 3    | 13A /*10A      | SA3350/1 | SA3349/1 | 10       | 16 - 18 AWG            |
| 8    | 8A /*4A        | SA3348/1 | SA3347/1 | 10       | 18 - 20 AWG            |
| 12   | 3A /*2A        | SA3180/1 | SA3179/1 | 10       | 22 - 24 AWG            |

#### Insertion / Extraction

|                           | Poles | Contact Rating | Colour | Part No |
|---------------------------|-------|----------------|--------|---------|
| Insertion/Extraction Tool | 3     | 13A /*10A      | Blue   | 13027/2 |
| Insertion/Extraction Tool | 8     | 8A /*4A        | Red    | 13027/1 |
| Insertion/Extraction Tool | 12    | 3A /*2A        | Green  | 13027   |

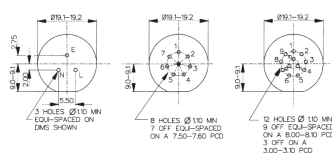
#### Crimp tools

|                                              | Poles | Contact Rating | Colour | Part No    |
|----------------------------------------------|-------|----------------|--------|------------|
| Positioner                                   | 3     | 13A /*10A      | Orange | 14025/1618 |
| Positioner                                   | 8     | 8A /*4A        | Grey   | 14025/1820 |
| Positioner                                   | 12    | 3A /*2A        | Yellow | 14025/2224 |
| 8 Indent Crimp Tool for use with positioners |       |                |        | 14025      |

#### PXP4013 PCB Contact Layout

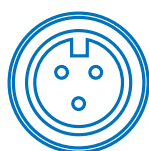
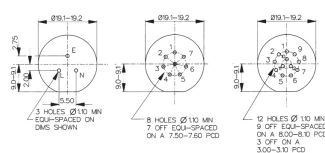
##### Sockets

Contact numbers viewed from rear of panel

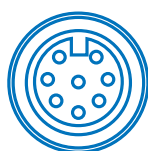


##### Plugs

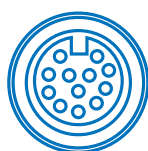
Contact numbers viewed from rear of panel



3 pole  
(13 Amp)



8 pole  
(8 Amp)



12 pole  
(3 Amp)

\*Current rating for CSA standards

#### Electrical:

|                          |                                   |           |           |
|--------------------------|-----------------------------------|-----------|-----------|
| No. Poles:               | 3                                 | 8         | 12        |
| Current Rating UL / VDE: | 13A                               | 8A        | 3A        |
| Current Rating CSA:      | 10A                               | 5A        | 3A        |
| Voltage Rating (ac/dc):  | 600Vac/dc                         | 600Vac/dc | 600Vac/dc |
| Contact Resistance:      | <5mΩ                              |           |           |
| Insulation Resistance:   | >10 <sup>6</sup> MΩ (@ 500V d.c.) |           |           |
| AC Breakdown voltage:    | 2.5kV                             |           |           |

Operating Temperature:  
 Flex and panel types -40°C to +120°C

#### Approvals:

 UL  
 CSA  
 VDE

#### Material:

Flex and panel types:  
 Body Mouldings: Polyamide  
 Flammability Rating: UL94V-0  
 UV Resistance: To EN 50021:1999

Contacts: Copper alloy, Gold plated

O Rings: Silicone

Panel Sealing O Ring: Silicone

 RoHS Compliant

#### Mechanical:

Sealing: IP66 to En60529:1992+A2:2013  
 IP68 to En60529:1992+A2:2013 (10m depth for 2 weeks)  
 IP69k to DIN 40050-9

IP69K, Tested in accordance with DIN 40050/Part 9 IP6k9k

Salt Mist: EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1

Vibration: BS EN 60068-2-64:2008 Test Fh  
 BS EN 60068-2-27:2009 Test Ea

Cable Acceptance: 3.0 - 7.0mm

Contact Accommodation: 3 pole, 16 - 18 AWG  
 8 pole, 18 - 20 AWG  
 12 pole, 22 - 24 AWG

Termination: Crimp, solder and PCB

Insertion/Withdrawal Force:  
 No. poles: 3 8 12  
 Insertion Force (typ): 25N 28N 62N  
 Withdrawal Force (typ): 17N 22N 29N

Panel mount (PXP4013)  
 Front fixing nut: 1.0-1.1Nm (9lbf.in.)

Cable Retention force:  
 3.0mm dia 60N  
 4.0 to 7.0mm dia 80N

Panel thread PXP4013: 18.97x26TPI Whitworth form to BS84 med fit

#### Dimensions:

Overall dimensions of connectors when mated together

Flex + Flex In-Line 80mm  
 Dia. over coupling ring 19.7mm

| PXP40 xx                                                                                                                                                                                                                                                                                                                                                                                                   | / | XX                                                                          | / | X                                                               | / | XXXX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-----------------------------------------------------------------------------|---|-----------------------------------------------------------------|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Body Styles</b><br><br><b>PXP4010</b> = Flex body<br><b>PXP4011</b> = Flex in-line body<br><b>PXP4013</b> = Rear panel/PCB mounting body                                                                                                                                                                                                                                                                |   | <b>Number Contacts</b><br><br>03 = 3 pole,<br>08 = 8 pole,<br>12 = 12 pole, |   | <b>Contact Type</b><br><br><b>P</b> = Pin,<br><b>S</b> = Socket |   | <b>For PXP4010 and PXP4011 cable connectors</b><br><b>- Cable Entry Size:</b><br><br>3035 = 3.0 - 3.5mm (Light Grey)<br>3540 = 3.5 - 4.0mm (Grey)<br>4045 = 4.0 - 4.5mm (Green)<br>4550 = 4.5 - 5.0mm (Red)<br><br>5055 = 5.0 - 5.5mm (Yellow)<br>5560 = 5.5 - 6.0mm (Blue)<br>6065 = 6.0 - 6.5mm (White)<br>6570 = 6.5 - 7.0mm (Black)<br><br>Cable gland and collet supplied in colour coded pairs.<br><br>For PXP4013 PCB/Rear Panel Mount:<br>PC = Pre-loaded PC pins<br>Blank = no pins supplied |
| <b>Examples:</b><br><br><b>PXP4010/03S/4045</b> = Flex cable connector, 3 socket contacts with gland and collet for cables between 4.0 and 4.5mm diameter (supplied less contacts).<br><b>PXP4013/08P</b> = Rear panel mounting connector, for 8 pin contacts (supplied less contacts).<br><b>PXP4013/03P/PC</b> = Rear panel/PCB connector, 3 pin contacts, PCB mounting (supplied with contacts loaded). |   |                                                                             |   |                                                                 |   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |



6000 Series Buccaneer – **circular connectors** that combine the ease of use of a **push/pull coupling mechanism** with proven environmental sealing. Available with **metal** or **plastic** bodies, the range supports both data (USB and Ethernet), signal and mains power. Designed and independently tested to **IP66, IP68 & IP69K** standards, they are ideal for applications where ingress of dust and water must be avoided and where ease of connection, space and appearance are important considerations.

- **Secure, quick connector mating and release**
- **30° twist locking**  
Tamperproof lock prevents accidental un-mating
- **IP66, IP68 and IP69K when mated**  
Suitable for a wide range of dust and water borne environments
- **All plastic body version; UL94-V0 rated, UV stable, halogen free**  
Light-weight, self-extinguishing material suitable for long-term outdoor use
- **Flex, flex in-line & panel mount body styles, with sealing caps**  
Complete family of products maintain sealing integrity in all styles
- **Polarisation and visual alignment features**  
Aids the correct mating of connectors
- **2 to 22 poles – up to 16A, 277V rated**  
Suitable for mains power to signal applications
- **‘Scoop proof’ contacts**  
Prevents damage through mis-mating – ideal for ‘blind mating’ applications
- **cULus, UL, VDE**  
Internationally recognised certification
- **Screw, Crimp and Solder terminations available**



# BUCCANEER FOR POWER

## 6000 Series Buccaneer

Thermo Plastic

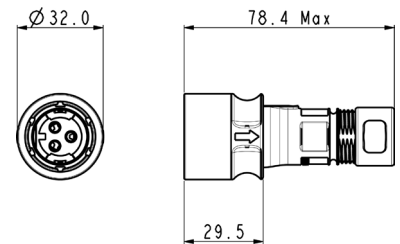


### Flex Cable Connector



PXP6010

- Mates with In-Line Flex or Panel Mounting versions PXP6011 & PXP6012
- Push/pull locking ring with 30° twist locking
- Pin or socket versions
- Leading earth on 3 pole connectors
- 2, 3, 8, 16 & 22 pole
- Screw, solder and crimp termination



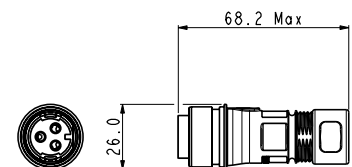
| Poles | Termination    | Pin Contacts   | Socket Contacts | Contacts          |
|-------|----------------|----------------|-----------------|-------------------|
| 2     | Screw          | PXP6010/02P/ST | PXP6010/02S/ST  | Supplied Fitted   |
| 2     | Crimp / Solder | PXP6010/02P/CR | PXP6010/02S/CR  | Contacts Required |
| 3     | Screw          | PXP6010/03P/ST | PXP6010/03S/ST  | Supplied Fitted   |
| 3     | Crimp / Solder | PXP6010/03P/CR | PXP6010/03S/CR  | Contacts Required |
| 8     | Crimp / Solder | PXP6010/08P/CR | PXP6010/08S/CR  | Contacts Required |
| 16    | Crimp / Solder | PXP6010/16P/CR | PXP6010/16S/CR  | Contacts Required |
| 22    | Crimp / Solder | PXP6010/22P/CR | PXP6010/22S/CR  | Contacts Required |

### In-line Flex Cable Connector



PXP6011

- Mates with Flex Cable connector PXP6010
- For in-line cable connection
- Pin or socket versions
- Leading earth on 3 pole connectors
- 2, 3, 8, 16 and 22 pole
- Screw, solder and crimp termination



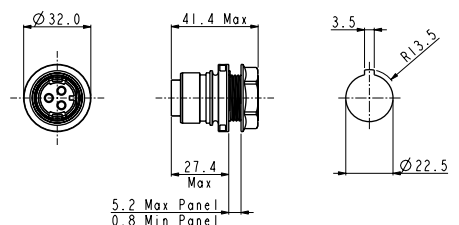
| Poles | Termination    | Pin Contacts   | Socket Contacts | Contacts          |
|-------|----------------|----------------|-----------------|-------------------|
| 2     | Screw          | PXP6011/02P/ST | PXP6011/02S/ST  | Supplied Fitted   |
| 2     | Crimp / Solder | PXP6011/02P/CR | PXP6011/02S/CR  | Contacts Required |
| 3     | Screw          | PXP6011/03P/ST | PXP6011/03S/ST  | Supplied Fitted   |
| 3     | Crimp / Solder | PXP6011/03P/CR | PXP6011/03S/CR  | Contacts Required |
| 8     | Crimp / Solder | PXP6011/08P/CR | PXP6011/08S/CR  | Contacts Required |
| 16    | Crimp / Solder | PXP6011/16P/CR | PXP6011/16S/CR  | Contacts Required |
| 22    | Crimp / Solder | PXP6011/22P/CR | PXP6011/22S/CR  | Contacts Required |

### Front Panel Mounting Connector



PXP6012

- Mates with Flex Cable connectors PXP6010
- Front panel mounting
- Single hole fixing
- Pin or socket versions
- Leading earth on 3 pole connectors
- 2, 3, 8, 16 and 22 pole
- Screw, solder and crimp termination



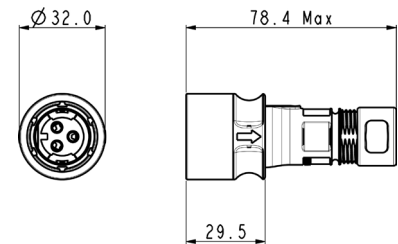
| Poles | Termination    | Pin Contacts   | Socket Contacts | Contacts          |
|-------|----------------|----------------|-----------------|-------------------|
| 2     | Screw          | PXP6012/02P/ST | PXP6012/02S/ST  | Supplied Fitted   |
| 2     | Crimp / Solder | PXP6012/02P/CR | PXP6012/02S/CR  | Contacts Required |
| 3     | Screw          | PXP6012/03P/ST | PXP6012/03S/ST  | Supplied Fitted   |
| 3     | Crimp / Solder | PXP6012/03P/CR | PXP6012/03S/CR  | Contacts Required |
| 8     | Crimp / Solder | PXP6012/08P/CR | PXP6012/08S/CR  | Contacts Required |
| 16    | Crimp / Solder | PXP6012/16P/CR | PXP6012/16S/CR  | Contacts Required |
| 22    | Crimp / Solder | PXP6012/22P/CR | PXP6012/22S/CR  | Contacts Required |

#### Flex Cable Connector



PXM6010

- Mates with In-Line Flex or Panel Mounting versions PXM6011 and PXM6012
- Push/pull locking ring with 30° twist locking
- Pin or socket versions
- Leading earth on 3 pole connectors
- 2, 3, 8, 16 and 22 pole
- Screw, solder and crimp termination
- Cable braid termination accessory option, add /SNsuffix



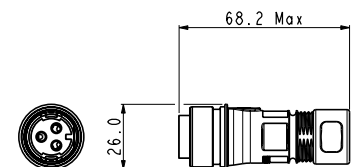
| Poles | Termination    | Pin Contacts   | Socket Contacts | Contacts          |
|-------|----------------|----------------|-----------------|-------------------|
| 2     | Screw          | PXM6010/02P/ST | PXM6010/02S/ST  | Supplied Fitted   |
| 2     | Crimp / Solder | PXM6010/02P/CR | PXM6010/02S/CR  | Contacts Required |
| 3     | Screw          | PXM6010/03P/ST | PXM6010/03S/ST  | Supplied Fitted   |
| 3     | Crimp / Solder | PXM6010/03P/CR | PXM6010/03S/CR  | Contacts Required |
| 8     | Crimp / Solder | PXM6010/08P/CR | PXM6010/08S/CR  | Contacts Required |
| 16    | Crimp / Solder | PXM6010/16P/CR | PXM6010/16S/CR  | Contacts Required |
| 22    | Crimp / Solder | PXM6010/22P/CR | PXM6010/22S/CR  | Contacts Required |

#### In-line Flex Cable Connector



PXM6011

- Mates with Flex Cable connector PXM6010
- For in-line cable connection
- Pin or socket versions
- Leading earth on 3 pole connectors
- 2, 3, 8, 16 and 22 pole
- Screw, solder and crimp termination
- Cable braid termination accessory option, add /SNsuffix



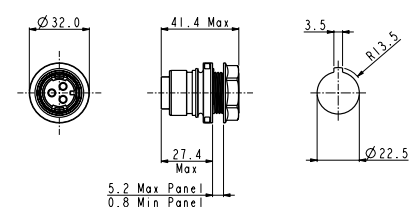
| Poles | Termination    | Pin Contacts   | Socket Contacts | Contacts          |
|-------|----------------|----------------|-----------------|-------------------|
| 2     | Screw          | PXM6011/02P/ST | PXM6011/02S/ST  | Supplied Fitted   |
| 2     | Crimp / Solder | PXM6011/02P/CR | PXM6011/02S/CR  | Contacts Required |
| 3     | Screw          | PXM6011/03P/ST | PXM6011/03S/ST  | Supplied Fitted   |
| 3     | Crimp / Solder | PXM6011/03P/CR | PXM6011/03S/CR  | Contacts Required |
| 8     | Crimp / Solder | PXM6011/08P/CR | PXM6011/08S/CR  | Contacts Required |
| 16    | Crimp / Solder | PXM6011/16P/CR | PXM6011/16S/CR  | Contacts Required |
| 22    | Crimp / Solder | PXM6011/22P/CR | PXM6011/22S/CR  | Contacts Required |

#### Front Panel Mounting Connector



PXM6012

- Mates with Flex Cable connectors PXM6010
- Front panel mounting
- Single hole fixing
- Pin or socket versions
- Leading earth on 3 pole connectors
- 2, 3, 8, 16 and 22 pole
- Screw, solder and crimp termination



| Poles | Termination    | Pin Contacts   | Socket Contacts | Contacts          |
|-------|----------------|----------------|-----------------|-------------------|
| 2     | Screw          | PXM6012/02P/ST | PXM6012/02S/ST  | Supplied Fitted   |
| 2     | Crimp / Solder | PXM6012/02P/CR | PXM6012/02S/CR  | Contacts Required |
| 3     | Screw          | PXM6012/03P/ST | PXM6012/03S/ST  | Supplied Fitted   |
| 3     | Crimp / Solder | PXM6012/03P/CR | PXM6012/03S/CR  | Contacts Required |
| 8     | Crimp / Solder | PXM6012/08P/CR | PXM6012/08S/CR  | Contacts Required |
| 16    | Crimp / Solder | PXM6012/16P/CR | PXM6012/16S/CR  | Contacts Required |
| 22    | Crimp / Solder | PXM6012/22P/CR | PXM6012/22S/CR  | Contacts Required |

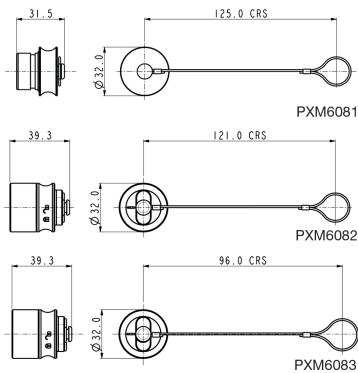
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|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div>Crimp / Solder Contacts</div> <div></div> <div>2, 3, 8, 16 &amp; 22 pole contacts</div> | <div> Gold Plated</div> <div> Current ratings:<br/>2 &amp; 3 pole : 16A<br/>8 pole : 10A<br/>16 pole : 3A<br/>22 pole : 2A</div> | <div><div>Contacts (for 2 &amp; 3 pole)<br/>(Supplied in packs of 10)</div><div>Pins<br/>Sockets</div><div>Crimp<br/>SA3545/P<br/>SA3545/S</div><div>Solder<br/>SA3624/P<br/>SA3624/S</div></div> <div><div>Contacts (for 8 pole)<br/>(Supplied in packs of 10)</div><div>Pins<br/>Sockets</div><div>Crimp<br/>SA3544/P<br/>SA3544/S</div><div>Solder<br/>SA3623/P<br/>SA3623/S</div></div> <div><div>Contacts (for 16 &amp; 22 pole)<br/>(Supplied in packs of 10)</div><div>Pins<br/>Sockets</div><div>Crimp<br/>SA3542/P<br/>SA3542/S</div><div>Solder<br/>SA3622/P<br/>SA3622/S</div></div> |
| <div>Crimp Tooling</div> <div></div> <div>PNo 14232</div>                                    | <div> Crimp Tools for 2, 3, 8, 16 and 22 pole crimp contacts</div>                                                                                                                                                | <div>Crimp Tooling</div> <div><div>Crimp Tool (2 &amp; 3 pole)<br/>Positioner (2 &amp; 3 pole)<br/>Crimp Tool (8, 16 &amp; 22 pole)<br/>Positioner (8 pole)<br/>Positioner (16 &amp; 22 pole)</div><div>PNo.14232<br/>PNo.14232/2/SP<br/>PNo.14025<br/>PNo.15021/SP<br/>PNo.15019/SP</div></div>                                                                                                                                                                                                                                                                                                |
| <div>Extraction Tool</div> <div></div>                                                     | <div> Extraction Tool for 2, 3, 8, 16 and 22 pole contacts</div>                                                                                                                                                | <div>Extraction Tools</div> <div><div>Extraction Tool (2 &amp; 3 pole)<br/>Extraction Tool (8 pole)<br/>Extraction Tool (16 &amp; 22 pole)</div><div>PNo.14946/SP<br/>PNo.14945/SP<br/>PNo.14944/SP</div></div>                                                                                                                                                                                                                                                                                                                                                                                 |
| <div>Contact Carrier Removal Tool</div> <div></div> <div>PNo 14917</div>                   | <div> For removal of all contact carriers</div>                                                                                                                                                                 | <div>Tools</div> <div><div>Contact carrier removal tool (all poles)</div><div>PNo. 14917/SP</div></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

Sealing Caps



PXM6083 PXM6082 PXM6081

- Maintains IP Rating of Unmated Connectors
- PXM6081: Fits PXM6010 (Flex Connector)
- PXM6082: Fits PXM6011 (Flex In-Line Connector)
- PXM6083: Fits PXM6012 (Panel Connector)

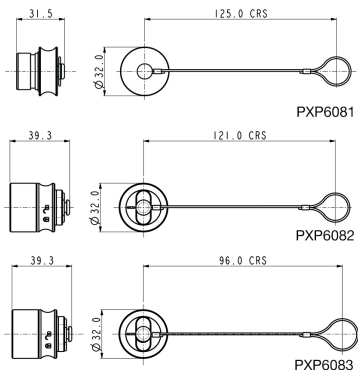


Plastic Sealing Caps



PXP6083 PXP6082 PXP6081

- Maintains IP Rating of Unmated Connectors
- PXP6081: Fits PXP6010 (Flex Connector)
- PXP6082: Fits PXP6011 (Flex In-Line Connector)
- PXP6083: Fits PXP6012 (Panel Connector)



Cable Gland Pack



PXP6088

- Pack of all cable glands to suit cable ranges from 4.0 to 10.0mm diameter

Cable Braid Termination Option



PXM6090

- For cable braid termination
- Supplied with ty-rap

| PXX      6XXX    /    XX      X      /    XX      /    XXXX      /      XX |                                                                   |                                                                                              |                                        |                                                                                     |                                                                                                                                                                                                        |                                                                                                                             |
|----------------------------------------------------------------------------|-------------------------------------------------------------------|----------------------------------------------------------------------------------------------|----------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Series Designation                                                         | Series / Body Style                                               | No. of Contacts                                                                              | Contacts Type                          | Terminations                                                                        | Cable Entry Size                                                                                                                                                                                       | Cable Brand Termination Accessory                                                                                           |
| PXM= Metal Series<br>PXP= Plastic Series                                   | Body Styles<br>6010 = Flex<br>6011 = Flex In-Line<br>6012 = Panel | No. of Contacts<br>02 = 2 Pole<br>03 = 3 Pole<br>08 = 8 Pole<br>16 = 16 Pole<br>22 = 22 Pole | Contacts Type<br>P = Pin<br>S = Socket | Contacts Termination<br>CR = Contacts Required<br>ST = Screw<br>(2 and 3 pole only) | Cable Entry Size<br>(for Flex and Flex In-Line connectors only)<br><br>0405 = 4-5mm<br>(Dark Grey)<br><br>0507 = 5-7mm<br>(White)<br><br>0709 = 7-9mm<br>(Yellow)<br><br>0910 = 9-10mm<br>(Light Grey) | Cable Braid Termination Accessory<br>(for Flex and Flex In-Line connectors only)<br>SN if required<br>Blank if not required |

### Examples

PXM6010/03P/CR/0507= Flex cable connector, 3 pole, pin contacts with 5 to 7mm cable glands  
 PXM6012/03/S/ST= Front panel mounting connector, 3 pole, socket with screw termination



### Electrical:

|                                                                                                  |                              |           |           |           |           |
|--------------------------------------------------------------------------------------------------|------------------------------|-----------|-----------|-----------|-----------|
| No. Poles:                                                                                       | 2                            | 3         | 8         | 16        | 22        |
| Current Rating:<br>See de-rating curves for<br>further information                               |                              |           |           |           |           |
| VDE                                                                                              | 16A                          | 16A       | 10A       | 3A        | 2A        |
| UL                                                                                               | 16A                          | 16A       | 7A        | 3A        | 3A        |
| cUL                                                                                              | 11A                          | 11A       | 4A        | 1.5A      | 1.5A      |
| CCC                                                                                              |                              |           |           |           |           |
| Voltage                                                                                          | 277V                         | 277V      | 277V      | 60V       | 60V       |
| Rated cable                                                                                      | 18<br>AWG                    | 18<br>AWG | 18<br>AWG | 22<br>AWG | 26<br>AWG |
| Contact Resistance:                                                                              | <10mΩ                        |           |           |           |           |
| Insulation Resistance:                                                                           | >10 <sup>6</sup> MΩ @500V dc |           |           |           |           |
| AC Breakdown voltage:                                                                            |                              |           |           |           |           |
| 2 pole                                                                                           | >10kV                        |           |           |           |           |
| 3 pole                                                                                           | >8kV                         |           |           |           |           |
| 8 to 22 pole                                                                                     | >5kV                         |           |           |           |           |
| Operating Temp. Range:                                                                           | -40°C to +120°C              |           |           |           |           |
| Approvals:                                                                                       |                              |           |           |           |           |
|  UL (E214972)    | UL1977                       |           |           |           |           |
|  cULus (E214972) | C22.2 No.182.3-M1987 (R2009) |           |           |           |           |
|  VDE (40039281)  | IEC 61984:2009               |           |           |           |           |
|  CCC (Pending)   |                              |           |           |           |           |

### Mechanical:

|                                                                                                                                                                |                                                                                                                                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| Locking mechanism                                                                                                                                              | Push/pull with 30° locking<br>Patent applied for                                                                                     |
| Sealing:                                                                                                                                                       | IP66 to En60529:1992+A2:2013<br>IP68 to En60529:1992+A2:2013 (10m depth<br>for 2 weeks)<br>IP69k to DIN 40050-9                      |
| Salt Mist (plastic) :                                                                                                                                          | EN60068-2-52 Test Kb Salt Mist (Cyclic)<br>Marine Severity Level 1                                                                   |
| Salt Mist (metal) :                                                                                                                                            | EN60068-2-11 Test Ka Salt Mist                                                                                                       |
| Contact Accommodation:<br>2 & 3 pole crimp / solder<br>2 & 3 pole screw terminals<br>8 pole crimp / solder<br>16 pole crimp / solder<br>22 pole crimp / solder | 14 to 18AWG<br>1.5mm <sup>2</sup> max<br>18 to 20AWG<br>22 to 26AWG<br>22 to 26AWG                                                   |
| Cable Acceptance:                                                                                                                                              | 4-10mm dia.                                                                                                                          |
| Cable retention force<br>(to BS EN61984):<br>4 - 9mm dia cable<br>9 - 10mm dia cable                                                                           | 80N<br>100N                                                                                                                          |
| Terminations:<br>2 Pole:<br>3 Pole:<br>8 Pole:<br>16 Pole:<br>22 Pole:                                                                                         | Screw Terminals<br>Screw, crimp or solder terminals<br>Crimp / Solder Contacts<br>Crimp / Solder Contacts<br>Crimp / Solder Contacts |
| Tightening Torques:<br>Gland Nut:<br>Panel Nut:                                                                                                                | 1.13Nm (10lb.in)<br>1.7Nm (15lb.in.)                                                                                                 |
| Panel Nut Thread:                                                                                                                                              | M22 x 1.5-6g                                                                                                                         |
| Dimensions:<br>Diameter: (over coupling ring)<br>Diameter: (panel hole cut-out)                                                                                | 32mm<br>22.5mm                                                                                                                       |

### Materials:

#### Plastic

|                      |                                                                    |
|----------------------|--------------------------------------------------------------------|
| Body:                | PC/ PBT                                                            |
| Colour:              | Grey                                                               |
| Contacts:            | Brass, Nickel Plate (Screw and Crimp)<br>Brass, (3A – Gold plated) |
| O Rings & Gaskets:   | Silicone                                                           |
| Flammability Rating: | UL94 V-0                                                           |
| Halogen free         | Yes                                                                |
| UV Resistance:       | ISO 4892 part 3 cycle 1 (QUV)                                      |
| <b>RoHS</b>          | Compliant                                                          |

#### Metal

|                      |                                                                    |
|----------------------|--------------------------------------------------------------------|
| Body:                | Brass                                                              |
| Colour:              | Matt silver                                                        |
| Contacts:            | Brass, Nickel Plate (Screw and<br>Crimp) Brass, (3A – Gold plated) |
| O Rings & Gaskets:   | Silicone                                                           |
| Flammability Rating: | -                                                                  |
| Halogen free         | -                                                                  |
| UV Resistance:       | -                                                                  |
|                      | Compliant                                                          |

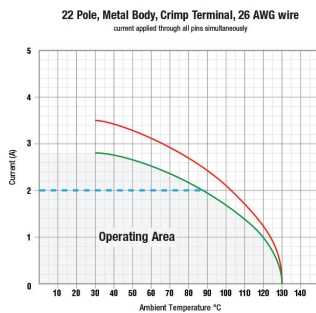
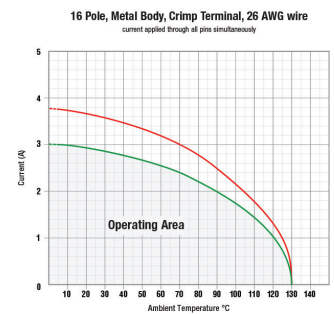
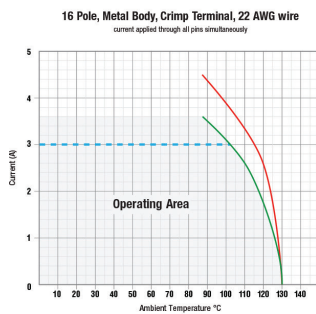
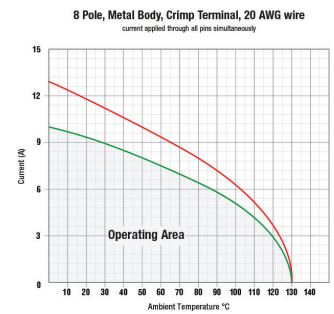
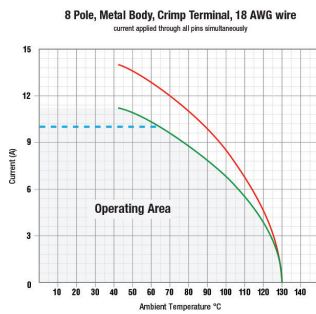
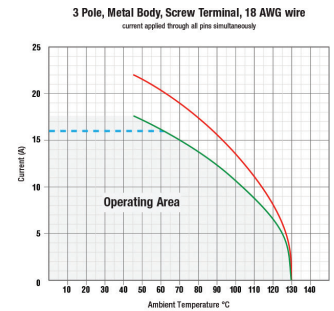
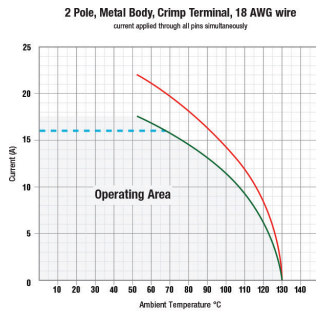
The thermal properties of the materials used in the construction of a connector limit the current carrying capacity. There are a number of factors that determine the amount of current that can be handled: contact spacing, size of cable, ambient temperature and the heat that is generated by the current passing through the connector.

The maximum current varies with different contact layouts, and because of these factors it is necessary to produce de-rating curves for each pole variant. This de-rating curve is specified in the standard IEC 60512 part 3. De-rating curves are plotted for each contact carrier combination with the current being carried simultaneously by all contacts. These graphs show the heat rise generated as the current is increased.

The red line indicates the direct correlation between current applied and the measured temperature rise within the connector. The dotted blue line shows rated current and the green line is derived by applying a factor of 0.8 to the original plot data to give a de-rating curve. The shaded area under the 0.8 curve shows the permitted operating area, and allows safe current vs ambient temperature characteristics to be determined.

The shaded area under the 0.8 curve shows the permitted operating area, and allows safe current vs ambient temperature characteristics to be determined.

- = tested operating limits
- = de-rated operating limits
- = rated current



The all plastic and metal construction of the 7000 Series Buccaneer - **circular connectors** that combine the ease of use of a **quick** coupling mechanism with **proven** environmental sealing for signal and mains **power**.

Designed and independently tested to IP66, IP68 & IP69K standards, they are ideal for applications where ingress of dust and water must be avoided and where ease of connection, space and appearance are important considerations.

- ⊞ **Less than 1/4 Turn locking mechanism**  
Secure, quick connector mating and release
- ⊞ **Positive feedback on locking mechanism**  
Confidence that connector is correctly mated and sealed
- ⊞ **IP66, IP68 and IP69K when mated**  
Suitable for a wide range of dust and water borne environments
- ⊞ **All plastic body version; UL94-V0 rated, UV stable, halogen free**  
Light-weight, self-extinguishing material suitable for long-term outdoor use
- ⊞ **Flex, flex in-line & panel mount body styles, with sealing caps**  
Complete family of products maintain sealing integrity in all styles
- ⊞ **Polarisation and visual alignment features**  
Aids the correct mating of connectors
- ⊞ **2 to 32 poles – up to 25A, 600V rated**  
Suitable for mains power to signal applications
- ⊞ **'Scoop proof' contacts**  
Prevents damage through mis-mating – ideal for 'blind mating' applications
- ⊞ **cULs, UL, VDE**  
approvals Internationally recognised certification (pending)
- ⊞ **Screw, Crimp and Solder terminations available**
- ⊞ **EN60068-2-52 Test Kb Salt Mist (Cyclic)**  
Marine Severity Level 1

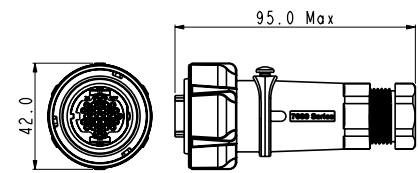


#### Flex Cable Connector



PXP7010

- ⬡ Mates with In-Line Flex or Panel Mounting versions PXP7011 & PXP7012
- ⬡ Quick turn locking ring
- ⬡ Pin or socket versions
- ⬡ Leading earth on 3 pole connectors
- ⬡ 2, 3, 6, 10 & 32 pole
- ⬡ Screw solder and crimp termination



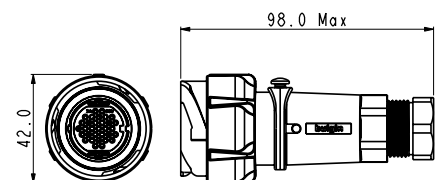
| Poles | Termination    | Pin Contacts   | Socket Contacts | Contacts         |
|-------|----------------|----------------|-----------------|------------------|
| 2     | Screw          | PXP7010/02P/ST | PXP7010/02S/ST  | Supplied Fitted  |
| 3     | Screw          | PXP7010/03P/ST | PXP7010/03S/ST  | Supplied Fitted  |
| 6     | Screw          | PXP7010/06P/ST | PXP7010/06S/ST  | Supplied Fitted  |
| 10    | Crimp / Solder | PXP7010/10P/CR | PXP7010/10S/CR  | Contact Required |
| 32    | Crimp / Solder | PXP7010/32P/CR | PXP7010/32S/CR  | Contact Required |

#### In-line Flex Cable Connector



PXP7011

- ⬡ Mates with Flex Cable connector PXP7010
- ⬡ For in-line cable connection
- ⬡ Pin or socket versions
- ⬡ Leading earth on 3 pole connectors
- ⬡ 2, 3, 6, 10 and 32 pole
- ⬡ Screw solder and crimp termination



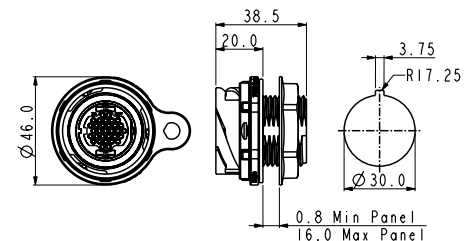
| Poles | Termination    | Pin Contacts   | Socket Contacts | Contacts         |
|-------|----------------|----------------|-----------------|------------------|
| 2     | Screw          | PXP7011/02P/ST | PXP7011/02S/ST  | Supplied Fitted  |
| 3     | Screw          | PXP7011/03P/ST | PXP7011/03S/ST  | Supplied Fitted  |
| 6     | Screw          | PXP7011/06P/ST | PXP7011/06S/ST  | Supplied Fitted  |
| 10    | Crimp / Solder | PXP7011/10P/CR | PXP7011/10S/CR  | Contact Required |
| 32    | Crimp / Solder | PXP7011/32P/CR | PXP7011/32S/CR  | Contact Required |

#### Front Panel Mounting Connector



PXP7012

- ⬡ Mates with Flex Cable connectors PXP7010
- ⬡ Front panel mounting
- ⬡ Single hole fixing
- ⬡ Pin or socket versions
- ⬡ Leading earth on 3 pole connectors
- ⬡ 2, 3, 6, 10 and 32 pole
- ⬡ Screw solder and crimp termination



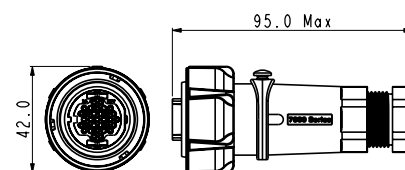
| Poles | Termination    | Pin Contacts   | Socket Contacts | Contacts         |
|-------|----------------|----------------|-----------------|------------------|
| 2     | Screw          | PXP7012/02P/ST | PXP7012/02S/ST  | Supplied Fitted  |
| 3     | Screw          | PXP7012/03P/ST | PXP7012/03S/ST  | Supplied Fitted  |
| 6     | Screw          | PXP7012/06P/ST | PXP7012/06S/ST  | Supplied Fitted  |
| 10    | Crimp / Solder | PXP7012/10P/CR | PXP7012/10S/CR  | Contact Required |
| 32    | Crimp / Solder | PXP7012/32P/CR | PXP7012/32S/CR  | Contact Required |

#### Flex Cable Connector



PXM7010

- Mates with In-Line Flex or Panel Mounting versions PXM7011 & PXM7012
- Quick turn locking ring
- Pin or socket versions
- Leading earth on 3 pole connectors
- 2, 3, 6, 10 & 32 pole
- Screw solder and crimp termination
- Cable braid termination accessory option, add /SNSuffix



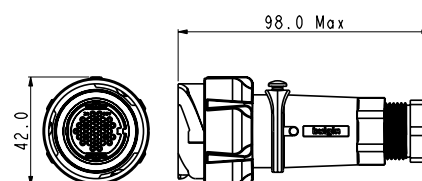
| Poles | Termination    | Pin Contacts   | Socket Contacts | Contacts         |
|-------|----------------|----------------|-----------------|------------------|
| 2     | Screw          | PXM7010/02P/ST | PXM7010/02S/ST  | Supplied Fitted  |
| 3     | Screw          | PXM7010/03P/ST | PXM7010/03S/ST  | Supplied Fitted  |
| 6     | Screw          | PXM7010/06P/ST | PXM7010/06S/ST  | Supplied Fitted  |
| 10    | Crimp / Solder | PXM7010/10P/CR | PXM7010/10S/CR  | Contact Required |
| 32    | Crimp / Solder | PXM7010/32P/CR | PXM7010/32S/CR  | Contact Required |

#### In-line Flex Cable Connector



PXM7011

- Mates with Flex Cable connector PXM7010
- For in-line cable connection
- Pin or socket versions
- Leading earth on 3 pole connectors
- 2, 3, 6, 10 and 32 pole
- Screw solder and crimp termination
- Cable braid termination accessory option, add /SNSuffix



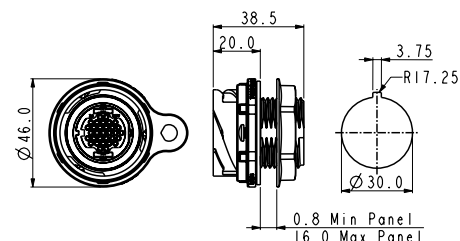
| Poles | Termination    | Pin Contacts   | Socket Contacts | Contacts         |
|-------|----------------|----------------|-----------------|------------------|
| 2     | Screw          | PXM7011/02P/ST | PXM7011/02S/ST  | Supplied Fitted  |
| 3     | Screw          | PXM7011/03P/ST | PXM7011/03S/ST  | Supplied Fitted  |
| 6     | Screw          | PXM7011/06P/ST | PXM7011/06S/ST  | Supplied Fitted  |
| 10    | Crimp / Solder | PXM7011/10P/CR | PXM7011/10S/CR  | Contact Required |
| 32    | Crimp / Solder | PXM7011/32P/CR | PXM7011/32S/CR  | Contact Required |

#### Front Panel Mounting Connector

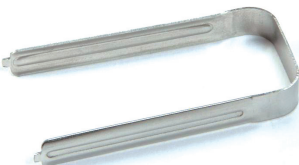


PXM7012

- Mates with Flex Cable connectors PXM7010
- Front panel mounting
- Single hole fixing
- Pin or socket versions
- Leading earth on 3 pole connectors
- 2, 3, 6, 10 and 32 pole
- Screw solder and crimp termination



| Poles | Termination    | Pin Contacts   | Socket Contacts | Contacts         |
|-------|----------------|----------------|-----------------|------------------|
| 2     | Screw          | PXM7012/02P/ST | PXM7012/02S/ST  | Supplied Fitted  |
| 3     | Screw          | PXM7012/03P/ST | PXM7012/03S/ST  | Supplied Fitted  |
| 6     | Screw          | PXM7012/06P/ST | PXM7012/06S/ST  | Supplied Fitted  |
| 10    | Crimp / Solder | PXM7012/10P/CR | PXM7012/10S/CR  | Contact Required |
| 32    | Crimp / Solder | PXM7012/32P/CR | PXM7012/32S/CR  | Contact Required |

|                                                                                                                                                                      |                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div>Crimp / Solder Contacts</div> <div></div> <div>10 &amp; 32 pole contacts</div> | <div><div><div></div><div>Gold Plated</div></div><div><div></div><div>Current ratings:<br/>10 pole: 10A<br/>32 pole: 2A</div></div></div> | <div><div>Contacts (for 10 pole)<br/>(Supplied in packs of 10)</div><div><div>Pins</div><div>Sockets</div></div><div><div>Crimp</div><div>SA3544/P<br/>SA3544/S</div><div>Solder</div><div>SA3623/P<br/>SA3623/S</div></div></div> <div><div>Contacts (for 32 pole)<br/>(Supplied in packs of 10)</div><div><div>Pins</div><div>Sockets</div></div><div><div>Crimp</div><div>SA3542/P<br/>SA3542/S</div><div>Solder</div><div>SA3622/P<br/>SA3622/S</div></div></div> |
| <div>Crimp Tooling</div> <div></div> <div>PNo 14025</div>                           | <div><div><div></div><div>Crimp Tools for 10 and 32 pole crimp contacts</div></div></div>                                                 | <div><div>Crimp Tooling</div><div><div>Crimp Tool (10 &amp; 32 pole)<br/>Positioner (10 pole)<br/>Positioner (32 pole)</div><div><div>PNo. 14025<br/>PNo. 15021/SP<br/>PNo. 15019/SP</div></div></div></div>                                                                                                                                                                                                                                                          |
| <div>Extraction Tools</div> <div></div> <div>PNo 14944/SP    PNo 14945/SP</div>   | <div><div><div></div><div>Extraction tool for 10 and 32 pole contacts</div></div></div>                                                   | <div><div>Extraction Tools</div><div><div>Extraction tool (10 pole)<br/>Extraction tool (32 pole)</div><div><div>PNo. 14945/SP<br/>PNo. 14944/SP</div></div></div></div>                                                                                                                                                                                                                                                                                              |
| <div>Contact Carrier Removal Tool</div> <div></div> <div>PNo 15065/SP</div>       | <div><div><div></div><div>For removal of all contact carriers</div></div></div>                                                           | <div><div>Contact Carrier Removal Tool</div><div><div>Contact carrier removal tool (all poles)</div><div><div>PNo. 15065/SP</div></div></div></div>                                                                                                                                                                                                                                                                                                                   |
| <div>Cable Braid Termination Option</div> <div></div> <div>PXM7090</div>          | <div><div><div></div><div>For cable braid termination</div></div><div><div></div><div>Supplied with ty-rap</div></div></div>              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

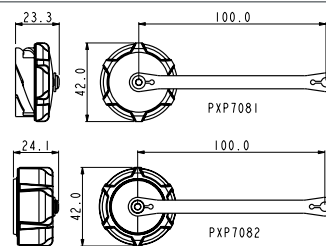


#### Sealing Caps



PXP7082 PXP7081

- Maintains IP rating of unmated connectors
- PXP7081: Fits PXP7010 (Flex Connector)
- PXP7082: Fits PXP7011 (FlexIn-Line Connector) and PXP7012: (Panel Connector)

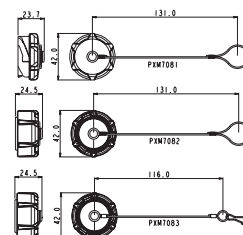


#### Sealing Caps



PXM7082 PXM7081 PXM7083

- Maintains IP rating of unmated connectors
- PXM7081: Fits PXM7010 (FlexConnector)
- PXM7082: Fits PXM7011 (Flex In-Line Connector) and PXP7012: (Panel Connector)
- PXM7083: Fits PXM7012 (Panel Mounting Connector)



#### Cable Gland Packs



PXP7088/ \*

- Packs of cable glands, cages and gland nuts to suit cables ranges from 5.0 to 15.0mm diameter
- PXP7088/0507: for cable ranges between 5.0 and 7.0mm
- PXP7088/0713: for cable ranges between 7.0 and 13.0mm
- PXP7088/1315: for cable ranges between 13.0 and 15.0mm

| PXX                                      | 7XXX                                               | /                                                                         | XX                    | X                                                                                             | /                                                                                                                                                                                                     | XX                                                                                             | / | XXXX | / | XX |
|------------------------------------------|----------------------------------------------------|---------------------------------------------------------------------------|-----------------------|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|---|------|---|----|
| Series Designation                       | Series / Body Style                                | No. of Contacts                                                           | Contacts Type         | Terminations                                                                                  | Cable Entry Size                                                                                                                                                                                      | Cable Brand Termination Accessory                                                              |   |      |   |    |
| PXM= Metal Series<br>PXP= Plastic Series | 7010 = Flex<br>7011 = Flex In-Line<br>7012 = Panel | 02 = 2 Pole<br>03 = 3 Pole<br>06 = 6 Pole<br>10 = 10 Pole<br>32 = 32 Pole | P = Pin<br>S = Socket | ST = Screw Terminal<br>(2, 3, & 6 pole only)<br>CR = Contacts<br>Required (10 & 32 pole only) | (for Flex and Flex In-Line connectors only)<br>0507 = 5-7mm (grey)<br><br>0709 = 7-9mm (white)<br><br>0911 = 9-11mm (black)<br><br>1113 = 11 to 13 mm (yellow)<br><br>1315 = 13 to 15 mm (light grey) | (for Flex and Flex In-Line connectors only)<br><br>SN - If requires<br>Blank - If not required |   |      |   |    |

### Examples

PXM7010/10/P/CR/0911/SN= Flex cable connector, 10 pole, pin contacts with 9 to 11mm cable glands and braid termination accessory

PXM7012/03/S/ST= Front panel mounting connector, 3 pole, socket with screw termination

### Electrical:

|                                                                                                   |                              |      |      |      |      |
|---------------------------------------------------------------------------------------------------|------------------------------|------|------|------|------|
| No Poles:                                                                                         | 2                            | 3    | 6    | 10   | 32   |
| Current Rating:                                                                                   |                              |      |      |      |      |
| CCC, UL and VDE                                                                                   | 25A                          | 25A  | 10A  | 10A  | 3A   |
| cUL (pending)                                                                                     | 25A                          | 25A  | 8A   | 6A   | 2A   |
| Voltage Rating (ac/dc):                                                                           |                              |      |      |      |      |
| CCC, VDE (pending)                                                                                | 600V                         | 600V | 500V | 277V | 200V |
| UL, cUL (pending)                                                                                 | 600V                         | 600V | 600V | 600V | 600V |
| Contact Resistance:                                                                               | <10mΩ                        |      |      |      |      |
| Insulation Resistance:                                                                            | >10 <sup>6</sup> MΩ @500V dc |      |      |      |      |
| AC Breakdown voltage:                                                                             |                              |      |      |      |      |
| 2 pole                                                                                            | >10kV                        |      |      |      |      |
| 3 pole                                                                                            | >8kV                         |      |      |      |      |
| 6 to 32 pole                                                                                      | >5kV                         |      |      |      |      |
| Operating Temp. Range:                                                                            | -40°C to +120°C              |      |      |      |      |
| Approvals (pending):                                                                              |                              |      |      |      |      |
|  UL (Pending)    | UL1977                       |      |      |      |      |
|  cULus (Pending) | C22.2 No.182.3-M1987 (R2009) |      |      |      |      |
|  VDE (Pending)   | IEC 61984:2009               |      |      |      |      |
|  CCC (Pending)   | GB/T11918 and GB/T11919      |      |      |      |      |

### Mechanical:

|                                           |                                                                                                                 |
|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| Locking mechanism                         | Quarter turn, rapid locking                                                                                     |
| Sealing:                                  | IP66 to EN60529:1992+A2:2013<br>IP68 to EN60529:1992+A2:2013<br>(10m depth for 2 weeks)<br>IP69k to DIN 40050-9 |
| Salt Mist (plastic):                      | EN60068-2-52 Test Kb Salt Mist (Cyclic)<br>Marine Severity Level 1                                              |
| Salt Mist (metal):                        | EN60068-2-11 Test Ka Salt Mist                                                                                  |
| Contact Accommodation:                    |                                                                                                                 |
| 2 & 3 pole screw terminals                | 6.0mm <sup>2</sup> max                                                                                          |
| 6 pole screw                              | 1.00mm <sup>2</sup> max                                                                                         |
| 10 pole crimp / solder                    | 18 to 20AWG                                                                                                     |
| 32 pole crimp / solder                    | 22 to 26AWG                                                                                                     |
| Cable Acceptance:                         | 5-15mm dia.                                                                                                     |
| Cable retention force<br>(to BS EN61984): |                                                                                                                 |
| 5 - 9mm dia cable                         | 80N                                                                                                             |
| 9 - 15mm dia cable                        | 100N                                                                                                            |
| Terminations                              |                                                                                                                 |
| 2 Pole:                                   | Screw Terminals                                                                                                 |
| 3 Pole:                                   | Screw Terminals                                                                                                 |
| 6 Pole:                                   | Screw Terminals                                                                                                 |
| 10 Pole:                                  | Crimp / Solder Contacts                                                                                         |
| 32 Pole:                                  | Crimp / Solder Contacts                                                                                         |
| Tightening Torques:                       |                                                                                                                 |
| Gland Nut:                                | TBA                                                                                                             |
| Panel Nut:                                | 1.7Nm (15lbf.in.)                                                                                               |
| Panel Nut Thread                          | M30 x 2-6g                                                                                                      |
| Dimensions:                               |                                                                                                                 |
| Diameter: (over coupling ring)            | 42mm                                                                                                            |
| Diameter: (panel hole cut-out)            | 30mm                                                                                                            |

### Materials:

#### Plastic

|                      |                                                                 |
|----------------------|-----------------------------------------------------------------|
| Body:                | PC/ PBT                                                         |
| Colour:              | Grey                                                            |
| Contacts:            | Brass, Nickel Plate (Screw and Crimp) Brass, (3A – Gold plated) |
| O Rings & Gaskets:   | Silicone                                                        |
| Flammability Rating: | UL94 V-0                                                        |
| Halogen free         | Yes                                                             |
| UV Resistance:       | ISO 4892 part 3 cycle 1 (QUV)                                   |

#### Metal

|                                                                 |
|-----------------------------------------------------------------|
| Cast zinc alloy, nickel plated                                  |
| Matt silver                                                     |
| Brass, Nickel Plate (Screw and Crimp) Brass, (3A – Gold plated) |

### RoHS

Compliant

Compliant

The thermal properties of the materials used in the construction of a connector limit the current carrying capacity. There are a number of factors that determine the amount of current that can be handled: contact spacing, size of cable, ambient temperature and the heat that is generated by the current passing through the connector.

The maximum current varies with different contact layouts, and because of these factors it is necessary to produce de-rating curves for each pole variant. This de-rating curve is specified in the standard IEC 60512 part 3. De-rating curves are plotted for each contact carrier combination with the current being carried simultaneously by all contacts. These graphs show the heat rise generated as the current is increased.

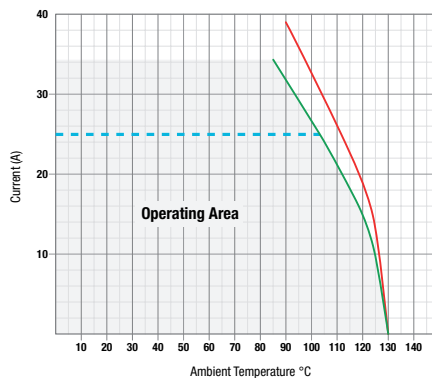
The red line indicates the direct correlation between current applied and the measured temperature rise within the connector. The dotted blue line shows rated current and the green line is derived by applying a factor of 0.8 to the original plot data to give a de-rating curve. The dashed blue line shows the rated current.

The shaded area under the 0.8 curve shows the permitted operating area, and allows safe current vs ambient temperature characteristics to be determined.

- = tested operating limits
- = de-rated operating limits
- = rated current

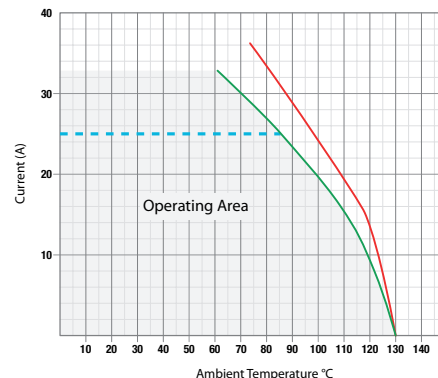
**7000 Series Current vs. Temperature Characteristics**

2 Pole, Plastic Body, Screw Terminal, 6.0mm<sup>2</sup> wire  
current applied through all pins simultaneously



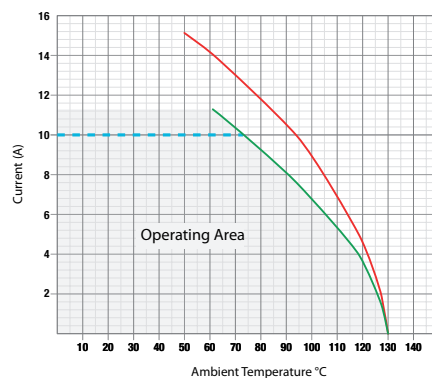
**7000 Series Current vs. Temperature Characteristics**

3 Pole, Plastic Body, Screw Terminal, 4.0mm<sup>2</sup> wire  
current applied through all pins simultaneously



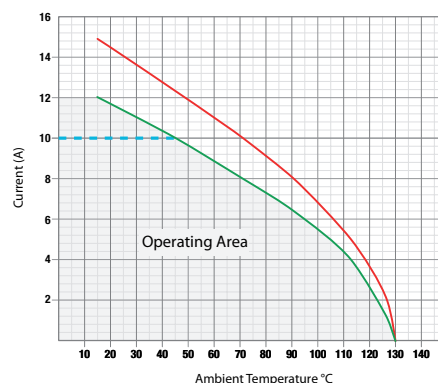
**7000 Series Current vs. Temperature Characteristics**

6 Pole, Plastic Body, Screw Terminal, 1.0mm<sup>2</sup> wire  
current applied through all pins simultaneously



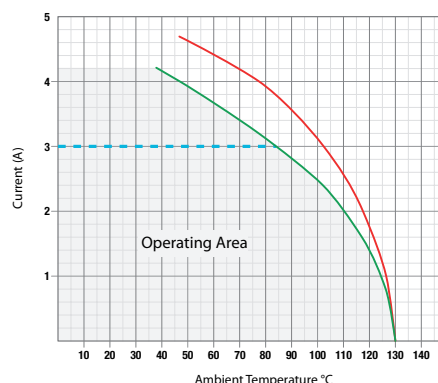
**7000 Series Current vs. Temperature Characteristics**

10 Pole, Plastic Body, Crimp Terminal, 18 AWG wire  
current applied through all pins simultaneously



**7000 Series Current vs. Temperature Characteristics**

32 Pole, Plastic Body, Crimp Terminal, 22 AWG wire  
current applied through all pins simultaneously



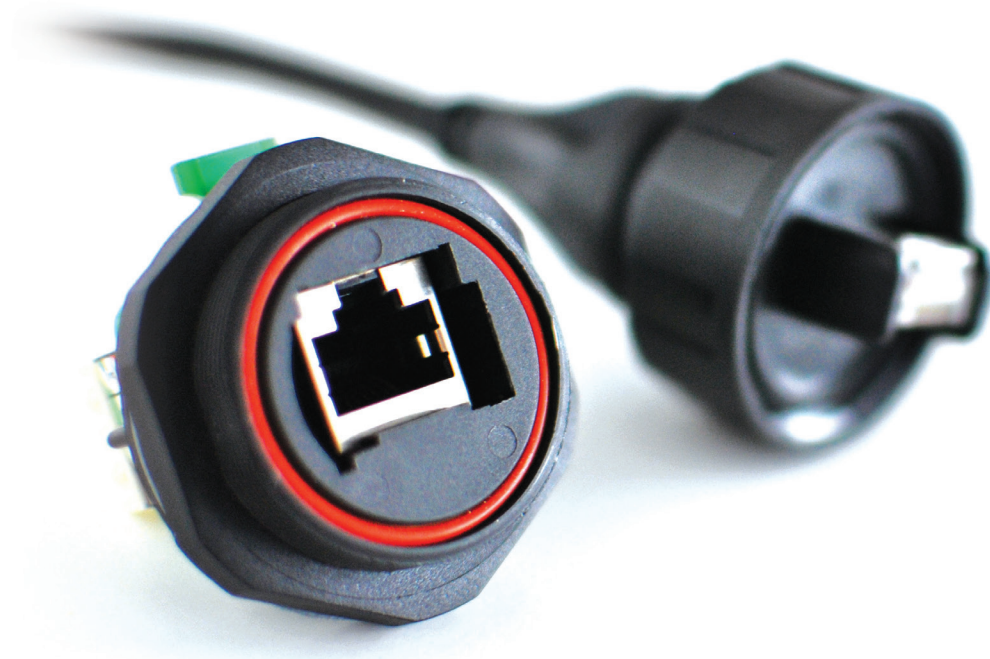
A full range of **IP68** rated environmentally **sealed circular connectors** designed to provide secure and safe connections in harsh or hostile conditions.

The Data Buccaneer range now includes designs specifically for Ethernet, USB and SMB applications. Ethernet Buccaneer meets Cat 5e requirements for data rates up to 100Mbps, USB Buccaneer is designed to meet USB version 2.0 specification for data rates up to 480Mbps, SMB Buccaneer has a frequency response up to 4GHz.

The Buccaneer series finds numerous applications either in external or internal environments where protection against the ingress of dust and moisture is a system requirement.



|                                  |        |
|----------------------------------|--------|
| Standard Buccaneer - Ethernet    | 63-68  |
| Standard Buccaneer - USB         | 69-74  |
| 400 Series - Mini USB Buccaneer  | 75-79  |
| 400 Series - SMB Buccaneer       | 80-82  |
| 400 Series - Wireless Buccaneer  | 83-89  |
| 4000 Series - Micro USB          | 90-92  |
| 6000 Series Buccaneer - USB      | 93-98  |
| 6000 Series Buccaneer - Ethernet | 99-103 |



- ⬢ IP68 rated
- ⬢ IP69K, Tested in accordance with DIN 40050/Part 9 IP6k9k
- ⬢ Cat 5e compliant
- ⬢ PUR jacket on cable
- ⬢ Shielded system
- ⬢ Cat 5e shielded coupler
- ⬢ Shroud on RJ45
- ⬢ Screw coupling
- ⬢ Rewireable flex connector
- ⬢ PCB mounted panel connector
- ⬢ IDC termination panel connector
- ⬢ Earth lead version of panel adaptor
- ⬢ EN60068-2-52 Test Kb Salt Mist (Cyclic)  
Marine Severity Level 1
- ⬢ Dust and waterproof sealing when mated
- ⬢ Data rate up to 100MHz
- ⬢ Good chemical resistance, flame retardant
- ⬢ High noise immunity and EMI protection
- ⬢ Maintains shielding
- ⬢ Protection from abuse and mis-mating
- ⬢ Secure, proven locking system
- ⬢ Ability to 'field' terminate
- ⬢ Direct PCB mount panel connector
- ⬢ Simple termination
- ⬢ Continuous screening of panel mount connector

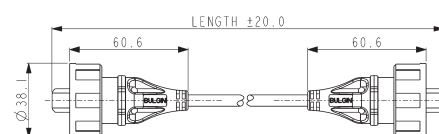
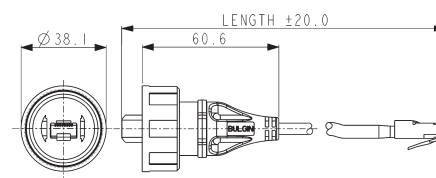
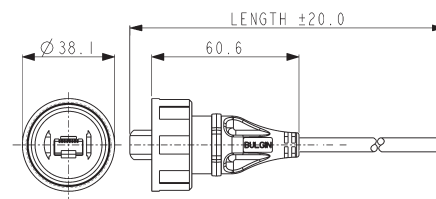


## Patch Cord Flex Connector - PUR Jacket



PX0836

- Mates with all panel mounting connectors
- Patchcords with IP68 connector
- Supplied with shielded RJ45 plug
- Single or double end terminated
- Standard lengths: 2m, 3m & 5m
- S-FTP cable construction
- PUR jacket cable
- Wiring configuration to 568-B
- Exceeds EIA/TIA Cat 5e



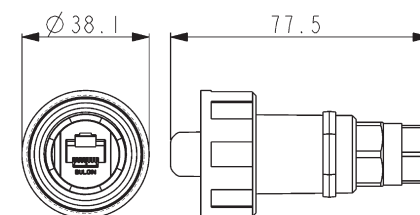
| Part no.    | Type         | Length | Description                                |
|-------------|--------------|--------|--------------------------------------------|
| PX0836/2M00 | Wire end     | 2m     | IP68 RJ45 Buccaneer to bare end            |
| PX0836/3M00 | Wire end     | 3m     | IP68 RJ45 Buccaneer to bare end            |
| PX0836/5M00 | Wire end     | 5m     | IP68 RJ45 Buccaneer to bare end            |
| PX0837/2M00 | Single ended | 2m     | IP68 RJ45 Buccaneer to Shielded RJ45       |
| PX0837/3M00 | Single ended | 3m     | IP68 RJ45 Buccaneer to Shielded RJ45       |
| PX0837/5M00 | Single ended | 5m     | IP68 RJ45 Buccaneer to Shielded RJ45       |
| PX0838/2M00 | Double ended | 2m     | IP68 RJ45 Buccaneer to IP68 RJ45 Buccaneer |
| PX0838/3M00 | Double ended | 3m     | IP68 RJ45 Buccaneer to IP68 RJ45 Buccaneer |
| PX0838/5M00 | Double ended | 5m     | IP68 RJ45 Buccaneer to IP68 RJ45 Buccaneer |

## Re wireable Flex Connector



PX0834

- Mates with all panel mounting connectors
- Supplied with shielded RJ45 plug
- Two versions:  
for PUR jacket cable (Cat 5e)  
for other cable sizes from  
3.5 to 8mm dia.



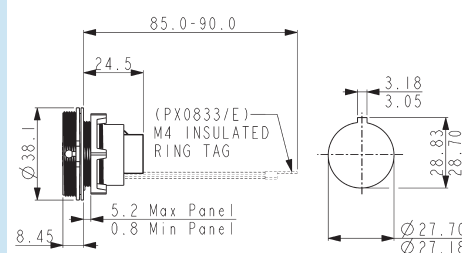
| Part no. | Description                                                                |
|----------|----------------------------------------------------------------------------|
| PX0834/A | Cable glands optimised for PUR jacket cable to maintain Cat 5e performance |
| PX0834/B | Suitable for use with cables from 3.5 to 8mm diameter                      |

## Panel Mounting Connector



PX0833

- Cat 5e shielded coupler
- Mates with PX0836, PX0837, PX0838 and PX0834 flex connectors
- Standard RJ45 patchcord can be plugged into rear
- Version with earth wire available
- Single hole fixing
- Complete with panel sealing gasket



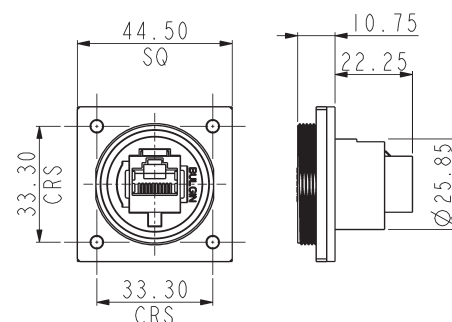
| Part no. | Description                 | Fixing              |
|----------|-----------------------------|---------------------|
| PX0833   | Cat 5e coupler              | Front panel mounted |
| PX0833/E | Cat 5e coupler + earth wire | Front panel mounted |

## Flanged Mounting Connector



PX0870

- Cat 5e shielded coupler
- Mates with PX0836, PX0837, PX0838 and PX0834 flex connectors
- Standard RJ45 patchcord can be plugged into rear
- Version with earth wire available
- Flange fixing
- Complete with panel sealing gasket & screw sealing washers



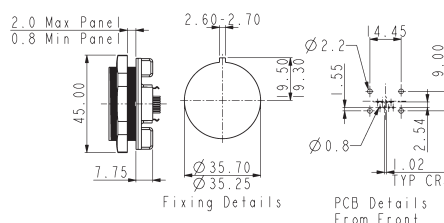
| Part no. | Description                 | Fixing          |
|----------|-----------------------------|-----------------|
| PX0870   | Cat 5e coupler              | Flange mounting |
| PX0870/E | Cat 5e coupler + earth wire | Flange mounting |

## PCB Mounting Connector



PX0839/PC

- Cat 5e shielded RJ45 interface
- Rear of panel mounted
- Mates with PX0836, PX0837, PX0838 and PX0834 flex connectors
- For direct vertical mounting to PCB, straight pins
- Complete with panel sealing
- PX0839/PC gasket



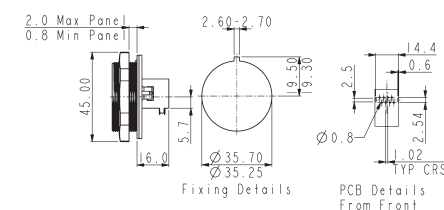
| Part no.  | Description           | Fixing             |
|-----------|-----------------------|--------------------|
| PX0839/PC | Cat 5e connector - PC | Rear panel mounted |

## PCB Mounting Connector

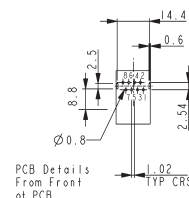


PX0839/90

- Cat 5e shielded RJ45 interface
- Rear of panel mounted
- Mates with PX0836, PX0837, PX0838 and PX0834 flex connectors
- For direct horizontal mounting to PCB, 90° pins
- Complete with panel sealing
- PX0839/90 gasket



| Part no.  | Description           | Fixing             |
|-----------|-----------------------|--------------------|
| PX0839/90 | Cat 5e connector - PC | Rear panel mounted |

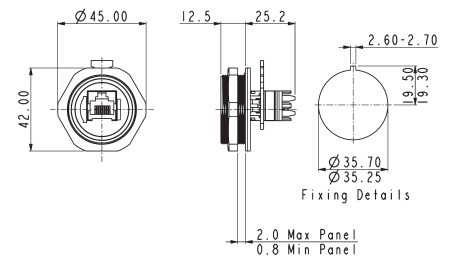


Panel Mounting Connector



PX0839/IDC

- Cat 5e shielded RJ45 interface
- Rear of panel mounted
- Mates with PX0836, PX0837, PX0838 and PX0834 flex connectors
- Two IDC blocks for discrete termination
- Complete with panel sealing



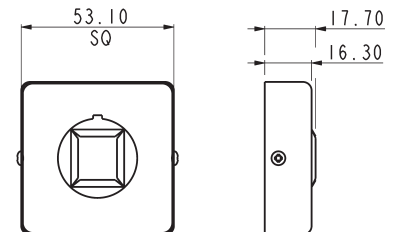
| Part no.   | Description    | Fixing             |
|------------|----------------|--------------------|
| PX0839/IDC | Cat 5e coupler | Rear panel mounted |

Shield Back Shell Accessory



PX0888

- Maintains RJ45 coupler screening directly to panel
- Shielding can is fixed to rear of panel mount connector
- For use on PX0833



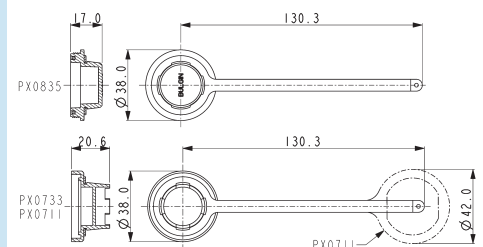
| Part no. | Description                   |
|----------|-------------------------------|
| PX0888   | Shielding backshell accessory |

Accessories



Sealing Caps

- Sealing caps to maintain IP68 rating when connectors are not in use
- Replacement shielded RJ45s
- Hand crimp tool for shielded RJ45
- Patch cord cable available in 50m reels



| Part no. | Description                                               |
|----------|-----------------------------------------------------------|
| PX0835   | Sealing Cap for flex connectors (PX0834, PX0836-838)      |
| PX0733   | Sealing Cap for panel mounting connector (PX0833, PX0870) |
| PX0711   | Sealing Cap for rear panel mounting connector (PX0839)    |
| 14151    | Hand crimp tooling + die set                              |
| 14199    | PUR Jacket Cable - 50m reel                               |
| 14150    | Replacement shielded RJ45                                 |

## Connectors

|                         |                                                                 |
|-------------------------|-----------------------------------------------------------------|
| Sealing                 | IP69K, Tested in accordance with DIN 40050/Part 9 IP6k9k        |
|                         | IP68, EN60529:1992+A2:2013 (10m depth for 2 weeks)              |
| Operating Temperature   | -20°C to +70°C                                                  |
| Materials - Overmoulded |                                                                 |
| Overmould material      | PVC (black)                                                     |
| Flammability rating     | UL94V-0                                                         |
| Salt Mist               | EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1 |

## Materials - Re-wireable and Panel Connectors

|                               |           |
|-------------------------------|-----------|
| Connector body & locking ring | Polyester |
| Panel connector               | Nylon 6   |
| Flammability rating           | UL94V-0   |
| 'O' rings                     | Silicone  |
| Panel Gasket - round          | Silicone  |
| Panel Gasket - flange         | Neoprene  |
| <b>RoHS</b>                   | Compliant |

## Stranded S-FTP Patch cord cable - PUR Jacket

Polyurethane (PUR) jacket cable with internal construction exceeding Cat 5e performance levels. The PUR jacket has excellent abrasion, chemical and ozone resistance, low smoke, low halogen flame retardant construction suitable for internal and external industrial environments.

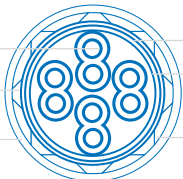
## Cable

|                  |                                          |
|------------------|------------------------------------------|
| Conductors       | 24AWG (7/0.2mm) bare copper              |
| Insulation       | HD-PE                                    |
| Pair             | 2 of the above cores twisted             |
| Core             | 4 of the above cores                     |
| Tape             | 1 lap mylar tape                         |
| Screen           | 1 layer mylar and aluminium tape, 0.12mm |
| Sheath           | tinned copper braid                      |
| Op Temperature   | PUR Jacket Black                         |
| Min. bend radius | -25°C to +85°C                           |
| Min. bend radius | 10 x o/d (installation)                  |
| Diameter         | 6 x o/d (installed)<br>6.1mm nominal     |

Electrical @ 20°C

|                           |                                         |
|---------------------------|-----------------------------------------|
| Characteristic Impedance  | 100 $\Omega$ $\pm$ 15 $\Omega$ @ 100MHz |
| Capacitance               | 330pF/km                                |
| Conductor Loop resistance | 29/ $\Omega$ 100m maximum               |
| Skew                      | 45 nsec/100m @ 100MHz                   |
| TIA/EIA Rating            | Cat 5e                                  |

## Cable construction - PX0836, PX0837, PX0838 and 14199

|                              |                                                                                     |                      |
|------------------------------|-------------------------------------------------------------------------------------|----------------------|
| 24 AWG<br>7/0.20mm conductor |  | Mylar Tape           |
| Braiding<br>7/0.12mm         |                                                                                     | Insulation - HD - PE |
| Jacket<br>6.10mm dia         |                                                                                     | Aluminium/ PEPT tape |
|                              |                                                                                     | Drain Wire           |
|                              |                                                                                     |                      |

Polyurethane (PUR) Jacket

## RJ45 Plug

### Materials

|                       |                 |
|-----------------------|-----------------|
| Moulding              | Polycarbonate   |
| Flammability          | UL94V-0         |
| Contact material      | Phosphor Bronze |
| Contact plating       | 50 micron gold  |
| Operating Temperature | -40°C to +70°C  |
| Mating cycles         | 1,000 cycles    |
| <b>RoHS</b>           | Compliant       |

### Electrical

|                    |                                  |
|--------------------|----------------------------------|
| No. Conductors     | 8                                |
| Conductor types    | 24-28AWG, solid or multistranded |
| Current rating     | 1.5A                             |
| Voltage rating     | 30V ac, 42V dc                   |
| Contact resistance | 10m $\Omega$ max.                |
| Performance        | Cat 5e                           |

## RJ45 Coupler

### Materials

|                       |                 |
|-----------------------|-----------------|
| Coupler Shell         | Copper Alloy    |
| Coupler Plating       | Nickel          |
| Moulding              | ABS             |
| Flammability          | UL94V-0         |
| Contact material      | Phosphor Bronze |
| Contact plating       | 50 micron gold  |
| Operating Temperature | -40°C to +70°C  |
| Mating cycles         | 1,000 cycles    |
| <b>RoHS</b>           | Compliant       |

### Electrical

|                    |                |
|--------------------|----------------|
| No. Conductors     | 8              |
| Current rating     | 1.5A           |
| Voltage rating     | 30V ac, 42V dc |
| Contact resistance | 10mV max.      |
| Performance        | Cat 5e         |

## RJ45 PCB Connector

### Materials

|                       |                 |
|-----------------------|-----------------|
| Coupler Shell         | Copper Alloy    |
| Coupler Plating       | Nickel          |
| Moulding              | ABS             |
| Flammability          | UL94V-0         |
| Contact material      | Phosphor Bronze |
| Contact plating       | 50 micron gold  |
| PC Pins               | Tin plated      |
| Operating Temperature | -40°C to +70°C  |
| Mating cycles         | 1,000 cycles    |
| <b>RoHS</b>           | Compliant       |

### Electrical

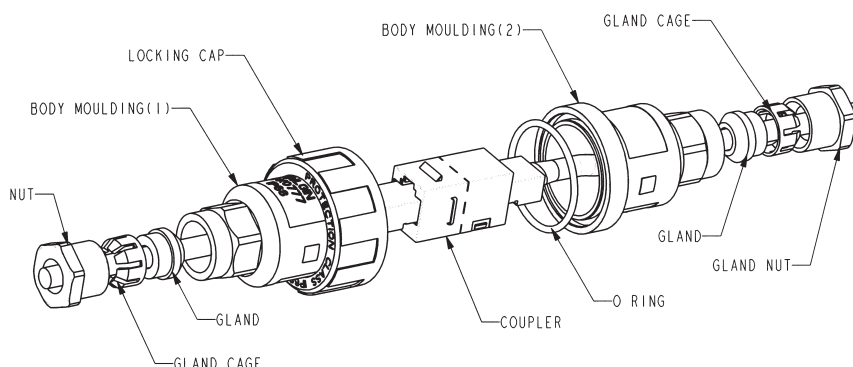
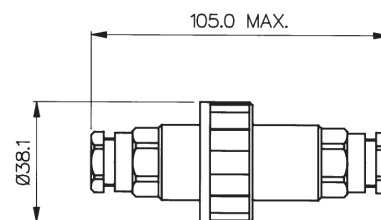
|                    |                   |
|--------------------|-------------------|
| No. Conductors     | 8                 |
| Current rating     | 1.5A              |
| Voltage rating     | 30V ac, 42V dc    |
| Contact resistance | 10m $\Omega$ max. |
| Performance        | Cat 5e            |

Cable Joiner



PX0777

- ⬡ IP68 Rating
- ⬡ For Sealed In-Line RJ45 Connections
- ⬡ Supplied Complete with Coupler
- ⬡ Shielded (STP) & Unshielded (UTP) versions
- ⬡ Cat5e Shielded Coupler also available
- ⬡ Cable Range 3.5 - 8mm (with glands supplied)



| Specifications        | PX0777/UTP                                                                                 | PX0777/STP                                                                                 | PX0777/CAT5ESTP                                                                            |
|-----------------------|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Rating:               | 1.5A, 30V a.c., 42V d.c.                                                                   | 1.5A, 30V a.c., 42V d.c.                                                                   | 1.5A, 30V a.c., 42V d.c.                                                                   |
| No. of Conductors:    | 8                                                                                          | 8                                                                                          | 8                                                                                          |
| Coupler Type:         | Unshielded                                                                                 | Shielded                                                                                   | Shielded CAT5e performance                                                                 |
| Cable Range:          | 3.5 - 8mm<br>With glands supplied:<br>3.5 - 5mm (Blue)<br>5 - 7mm (Green)<br>6 - 8mm (Red) | 3.5 - 8mm<br>With glands supplied:<br>3.5 - 5mm (Blue)<br>5 - 7mm (Green)<br>6 - 8mm (Red) | 3.5 - 8mm<br>With glands supplied:<br>3.5 - 5mm (Blue)<br>5 - 7mm (Green)<br>6 - 8mm (Red) |
| Material:             | Glass Filled Polyamide<br>UL94V-0                                                          | Glass Filled Polyamide<br>UL94V0                                                           | Glass Filled Polyamide<br>UL94V0                                                           |
| Sealing:              | IP68 to BSEN<br>60529:1992+A2:2013<br>(10m depth for 2 weeks)                              | IP68 to BSEN<br>60529:1992+A2:2013<br>(10m depth for 2 weeks)                              | IP68 to BSEN<br>60529:1992+A2:2013<br>(10m depth for 2 weeks)                              |
| Salt Mist             | EN60068-2-52 Test Kb Salt Mist<br>(Cyclic)<br>Marine Severity Level 1                      | EN60068-2-52 Test Kb Salt Mist<br>(Cyclic)<br>Marine Severity Level 1                      | EN60068-2-52 Test Kb Salt Mist<br>(Cyclic)<br>Marine Severity Level 1                      |
| Operating Temp Range: | -20°C to +70°C                                                                             | -20°C to +70°C                                                                             | -20°C to +70°C                                                                             |
| Colour:               | Black                                                                                      | Black                                                                                      | Black                                                                                      |
| RoHS                  | Compliant                                                                                  | Compliant                                                                                  | Compliant                                                                                  |



- ⬢ IP68 rated
- ⬢ IP69K, Tested in accordance with DIN 40050/Part 9 IP6k9k
- ⬢ USB version 2.0 performance
- ⬢ Plug and play capability
- ⬢ Visual mating indication
- ⬢ Shielded system
- ⬢ Single and double ended cables
- ⬢ Screw coupling
- ⬢ PCB versions
- ⬢ Dust and waterproof sealing when mated
- ⬢ Low and high speed bus connection, 1.5Mbps to 480Mbps
- ⬢ Hot pluggable, standard 4 pole interface
- ⬢ Alignment indicator reduces risk of damage during mating
- ⬢ High noise immunity and EMI protection
- ⬢ Suitable for PC and peripheral configuration
- ⬢ Secure, proven locking system
- ⬢ Direct mounting or via adaptor leads
- ⬢ EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1



#### Sealed USB Cables - Single Ended



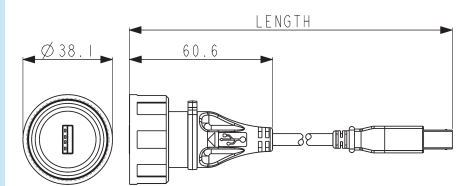
PX0840/A



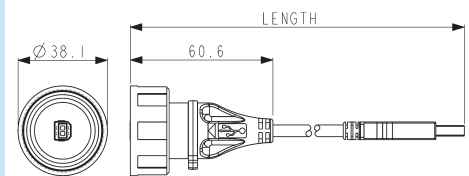
PX0840/B

#### Single ended sealed cable assembly

- IP68 'A' type USB connector to standard 'B' type USB connector, mates with all panel mount connectors
- IP68 'B' type USB connector to standard 'A' type USB connector, mates with all panel mount connectors
- Available in 2m, 3m and 5m lengths



PX0840/A/xMxx



PX0840/B/xMxx

| Part no.      | Length | Description                            |
|---------------|--------|----------------------------------------|
| PX0840/A/2M00 | 2m     | IP68 A type USB to standard B type USB |
| PX0840/A/3M00 | 3m     | IP68 A type USB to standard B type USB |
| PX0840/A/5M00 | 5m     | IP68 A type USB to standard B type USB |
| PX0840/B/2M00 | 2m     | IP68 B type USB to standard A type USB |
| PX0840/B/3M00 | 3m     | IP68 B type USB to standard A type USB |
| PX0840/B/5M00 | 5m     | IP68 B type USB to standard A type USB |

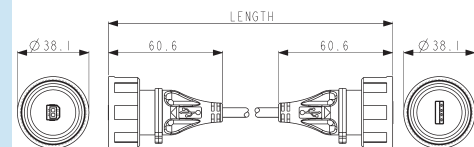
#### Sealed USB Cables Double Ended



PX0841/AB

#### Double ended sealed cable assembly

- IP68 'A' type USB connector to
- IP68 'B' type USB connector
- Mates with all panel mount connectors
- Available in 2m, 3m and 5m lengths



PX0841/AB/xMxx

| Part no.       | Length | Description                        |
|----------------|--------|------------------------------------|
| PX0841/AB/2M00 | 2m     | IP68 A type USB to IP68 B type USB |
| PX0841/AB/3M00 | 3m     | IP68 A type USB to IP68 B type USB |
| PX0841/AB/5M00 | 5m     | IP68 A type USB to IP68 B type USB |

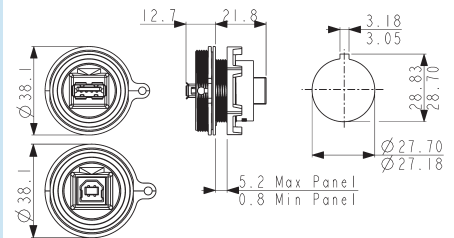
Front Panel Mounting Connector



PX0842/A

PX0842/B

- PX0842/A - USB 'A' type IP68 connector
- PX0842/B - USB 'B' type IP68 connector
- Opposite connector to rear of panel
- Mates with PX0840 and PX0841 cable connectors



**Part no.**

**Description**

PX0842/A  
PX0842/B

IP68 A type USB, front panel mounted. Sealed A type at front of panel, standard B type at rear  
IP68 B type USB, front panel mounted. Sealed B type at front of panel, standard A type at rear.

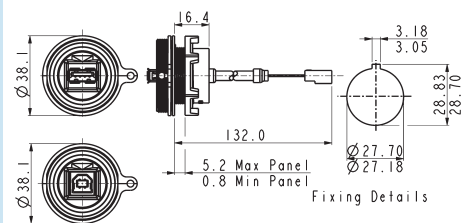
Front Panel Mounting Connector



PX0843/A

PX0843/B

- PX0843/A - USB 'A' type IP68 connector
- PX0843/B - USB 'B' type IP68 connector
- Leaded with 5 way crimp connector
- Mates with PX0840 and PX0841 cable connectors



**Part no.**

**Description**

PX0843/A  
PX0843/B  
PX0460/A  
PX0460/B

IP68 A type USB, front panel mounted. Sealed A type at front of panel, 5 way crimp connector at rear.  
IP68 B type USB, front panel mounted. Sealed B type at front of panel, 5 way crimp connector at rear.  
As PX0843/A with exposed braid for use with PX0465 screening can  
As PX0843/B with exposed braid for use with PX0465 screening can

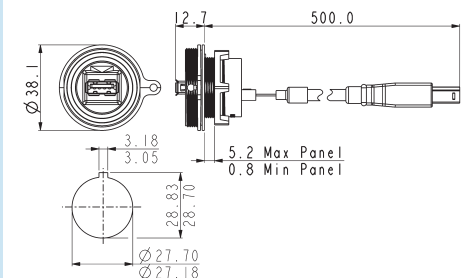
Front Panel Mounting Connector



PX0844/A

PX0844/B

- IP68 Sealed through panel
- PX0844/A - USB 'A' type IP68 connector
- PX0844/B - USB 'B' type IP68 connector
- Standard USB interface plug options to rear of panel
- 500mm standard cable length, other lengths available
- Mates with PX0840 and PX0841 cable connectors



**Part no.**

**Description**

PX0844/A/0M50/A  
PX0844/A/0M50/B  
PX0844/B/0M50/A  
PX0844/B/0M50/B

IP68 A type USB, sealed through panel, Sealed 'A' type at front of panel, standard 'A' type at rear  
IP68 A type USB, sealed through panel, Sealed 'A' type at front of panel, standard 'B' type at rear  
IP68 B type USB, sealed through panel, Sealed 'B' type at front of panel, standard 'B' type at rear  
IP68 B type USB, sealed through panel, Sealed 'B' type at front of panel, standard 'B' type at rear

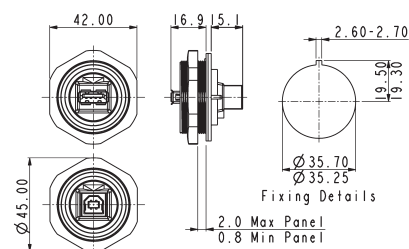
Rear Panel Mounting Connector



PX0848/A

PX0848/B

- PX0848/A - USB 'A' type IP68 connector
- PX0848/B - USB 'B' type IP68 connector
- Opposite connector to rear of panel
- Mates with PX0840 and PX0841 cable connectors



**Part no.**

**Description**

PX0848/A  
PX0848/B

IP68 A type USB, rear panel mounted. Sealed A type at front of panel, standard B type at rear.  
IP68 B type USB, rear panel mounted. Sealed B type at front of panel, standard A type at rear.

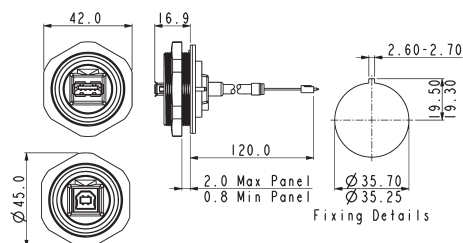
Rear Panel Mounting Connector



PX0849/A

PX0849/B

- PX0849/A - USB 'A' type IP68 connector
- PX0849/B - USB 'B' type IP68 connector
- Leaded with 5 way header
- Mates with PX0840 and PX0841 cable connectors



**Part no.**

**Description**

PX0849/A  
PX0849/B

IP68 A type USB, rear panel mounted. Sealed A type at front of panel, 5 way header at rear.  
IP68 B type USB, rear panel mounted. Sealed B type at front of panel, 5 way header at rear.

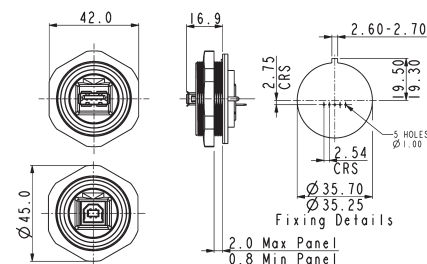
PCB Panel Mounting Connector- PCB Direct Mount



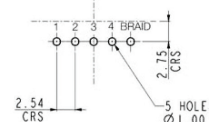
PX0845/A

PX0845/B

- PX0845/A - USB 'A' type IP68 connector
- PX0845/B - USB 'B' type IP68 connector
- PCB contacts at rear
- Direct PCB mount
- Mates with PX0840 and PX0841 cable connectors



View looking from front of PX0845/+



**Part no.**

**Description**

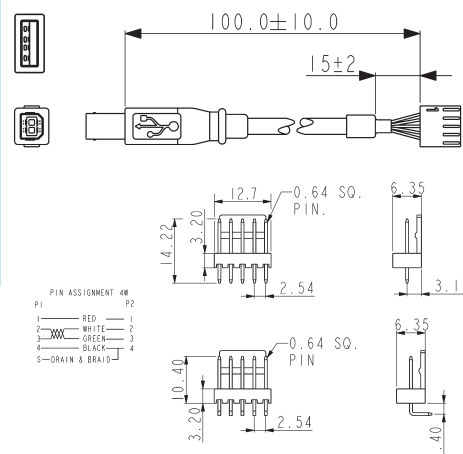
PX0845/A  
PX0845/B

IP68 A type USB, rear panel mounted. Sealed A type at front of panel, direct mount PCB contacts at rear.  
IP68 B type USB, rear panel mounted. Sealed B type at front of panel, direct mount PCB contacts at rear.

#### PCB Adaptor Leads



- Standard A and B type USB connectors to 5 way crimp adaptor leads
- 5 way headers, 2.54mm pitch, horizontal or vertical mounting



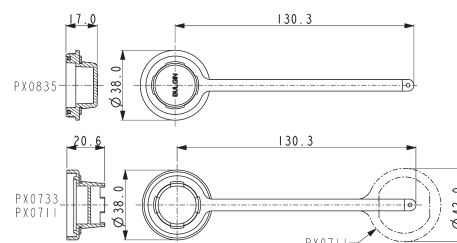
#### Part no. Description

|       |                                       |
|-------|---------------------------------------|
| 14193 | USB 'A' type to 5 way crimp connector |
| 14194 | USB 'B' type to 5 way crimp connector |
| 14191 | 5 way PCB header straight             |
| 14192 | 5 way PCB header right angle          |

#### Accessories



- Sealing caps to maintain IP68 rating when connectors are not in use
- PX0835 for cable connectors PX0840 & PX0841
- PX0733 for front panel mount connectors PX0842, PX0843 & PX0844
- PX0711 for rear panel mount connectors PX0848, PX0849 & PX0845



#### Part no. Description

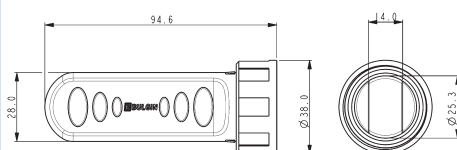
|        |                                                                        |
|--------|------------------------------------------------------------------------|
| PX0835 | Sealing Cap for cable connectors (PX0840, PX0841)                      |
| PX0733 | Sealing Cap for front panel mounting connector (PX0842, PX0843)        |
| PX0711 | Sealing Cap for rear panel mounting connector (PX0848, PX0849, PX0845) |

#### USB Flash Drive Cover



PX0852

- For use with USB Flash Drives
- Maintains IP68 rating when mated with panel connector
- For use with 'A' type connectors: PX0842, PX0843, PX0845, PX0848 & PX0849
- Internal accommodation 17.5 x 14.0 x 83mm approx.

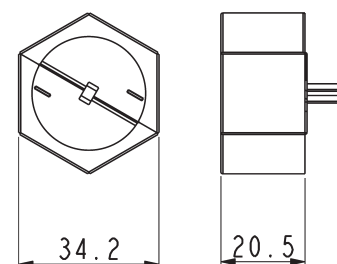


#### Screening Can



PX0464

- Maintains cable screening directly to panel
- Screening can clips around the panel fixing nut
- For use on PX0460/A and PX0460/B



## Cables & connectors

### Mechanical

Sealing

IP69K, Tested in accordance with DIN 40050/Part 9 IP6k9k

IP68, EN60529:1992+A2:2013 (10m depth for 2 weeks)

Operating temperature

0°C to +70°C

Salt Mist

EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1

### Electrical

No. of poles

4

Current rating

1A

Voltage rating

30Vac (RMS)

Contact resistance

30m  $\Omega$  max.

Performance

USB version 2.0

### Materials - Overmoulded

Overmould material

PVC (black)

Flammability rating

UL94V-0

### Materials - Re-wireable and Panel Connectors

Shell material

Steel

Shell plating

Nickel

Contact material

Copper Alloy

Contact plating

30 micro inch Gold

Connector body & locking ring

Glass Loaded Polyester

Panel connector

Nylon 6

Flammability rating

UL94V-0

'O' rings

Silicone

Panel Gasket - round

Silicone

Panel Gasket - square

Neoprene

Mating cycles

1,000

RoHS

Compliant

### Materials - cable

Cable Jacket

PVC (black)

Screen

Tinned copper braid

Flammability

UL94V-0

RoHS

Compliant

Length:

2m

3m

5m

|       | Conductors | Conductors |
|-------|------------|------------|
|       | Signal     | Power      |
| 4.8mm | 2 x 28AWG  | 2 x 24AWG  |
| 5.0mm | 2 x 28AWG  | 2 x 22AWG  |
| 5.2mm | 2 x 25AWG  | 2 x 20AWG  |

## PCB adaptor leads

### Electrical

No. of conductors

4

Current rating

1A

Voltage rating

30Vac (RMS)

Contact resistance

<10m  $\Omega$  max.

PCB pitch

2.54mm

### Materials

Moulding

Polycarbonate

Flammability

UL94V-0

Contact material

Copper Alloy

Contact plating

30 micro inch Gold

Wire insulation

PVC (black)

Flammability

UL94-V0

Conductors

4 x 28AWG

Operating temperature

0°C to +70°C

Mating cycles

1,000

RoHS

Compliant

## Cable construction - PX0840, PX0841

PVC Jacket

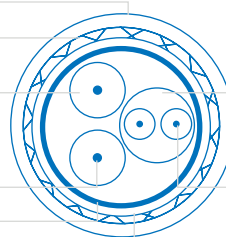
Braid

Insulation  
SR-PVC

Conductor  
2M - 24AWG  
3M - 22AWG  
5M - 20AWG

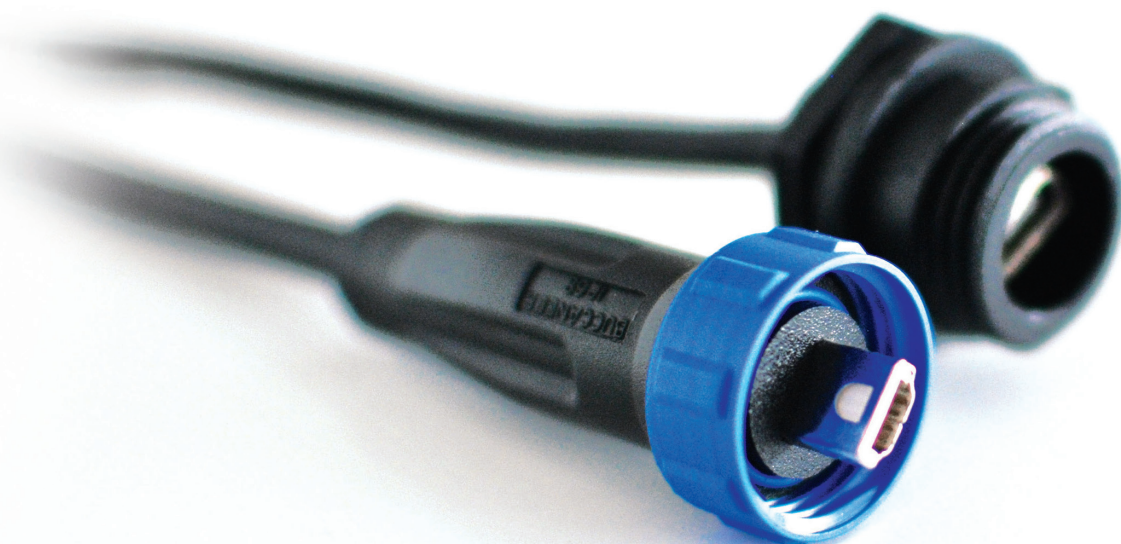
Drain Wire

Insulation - Polyfoein



Insulation  
HD - PE

Conductor  
2M - 28AWG  
3M - 28AWG  
5M - 25AWG



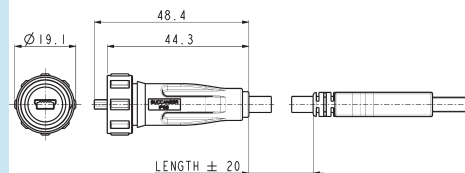
- ⬡ IP68 rated
- ⬡ IP69K, Tested in accordance with DIN 40050/Part 9 IP6k9k
- ⬡ USB V2.0 performance
- ⬡ Plug and play capability
- ⬡ Shielded system
- ⬡ Overmoulded cables
- ⬡ Screw coupling
- ⬡ PCB versions
- ⬡ Dust and waterproof to EN60529
- ⬡ Data rates up to 480Mbps
- ⬡ Hot pluggable, standard 4 pole interface
- ⬡ High noise immunity
- ⬡ Tamperproof construction
- ⬡ Secure, proven locking system
- ⬡ Direct mounting or via adaptor leads
- ⬡ EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1





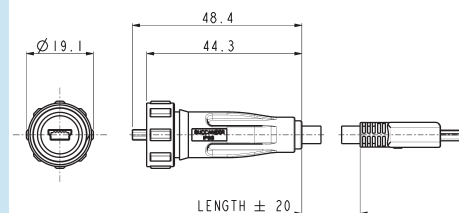
PX0441

- Standard 'A' type to sealed Mini 'B' type
- Fully overmoulded construction
- Available in 2, 3 & 4.5m lengths
- Mates with PX0443, PX0446, PX0447, PX0456, PX0457 & PX0458



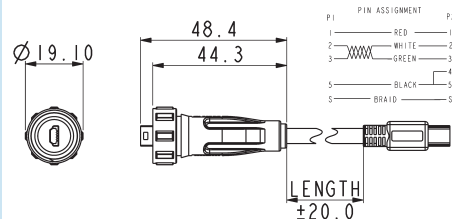
PX0442

- Mini 'A' type to sealed mini 'B' type
- Fully overmoulded construction
- Available in 2, 3 & 4.5m lengths
- Mates with PX0443, PX0446, PX0447, PX0456, PX0457 & PX0458



PX0444

- Mini 'B' type to Sealed Mini 'A' type
- Fully overmoulded construction
- Available in 2, 3 & 4.5m lengths
- Mates with PX0456, PX0457 & PX0458



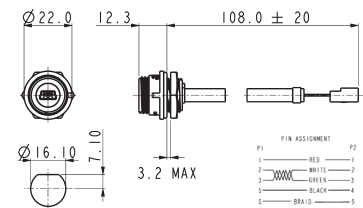
| Part No.    | Length | Description                        |
|-------------|--------|------------------------------------|
| PX0441/2M00 | 2.0m   | IP68 mini 'B' to Std 'A' type USB  |
| PX0441/3M00 | 3.0m   | IP68 mini 'B' to Std 'A' type USB  |
| PX0441/4M50 | 4.5m   | IP68 mini 'B' to Std 'A' type USB  |
| PX0442/2M00 | 2.0m   | IP68 mini 'B' to Mini 'A' type USB |
| PX0442/3M00 | 3.0m   | IP68 mini 'B' to Mini 'A' type USB |
| PX0442/4M50 | 4.5m   | IP68 mini 'B' to Mini 'A' type USB |
| PX0444/2M00 | 2.0m   | IP68 mini 'A' to Mini 'B' type USB |
| PX0444/3M00 | 3.0m   | IP68 mini 'A' to Mini 'B' type USB |
| PX0444/4M50 | 4.5m   | IP68 mini 'A' to Mini 'B' type USB |

Front Panel Mounting Connector



PX0443

- Mini 'B' type
- Leaded with 5 way crimp, for use with PC header
- Mates with PX0441 & PX0442 type cables



**Part no.** **Description**

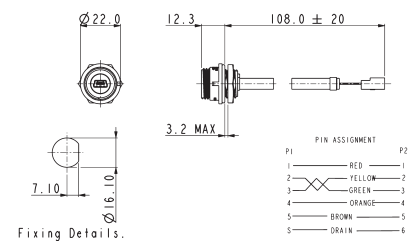
|        |                                                                           |
|--------|---------------------------------------------------------------------------|
| PX0443 | IP68 B type Mini USB, front panel mounted. 5 way crimp connector at rear. |
| PX0459 | As PX0443 with exposed braid for use with PX0464 screening can            |

Front Panel Mounting Connector



PX0456

- Mini 'AB' type
- Leaded with 6 way crimp, for use with PC header
- Mates with PX0441, PX0442 & PX0444 type cables



**Part no.** **Description**

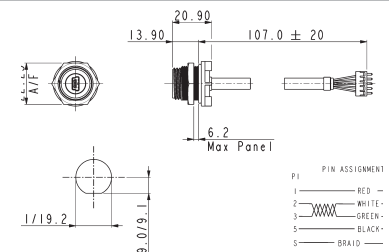
|        |                                                                            |
|--------|----------------------------------------------------------------------------|
| PX0456 | IP68 AB type Mini USB, front panel mounted. 6 way crimp connector at rear. |
|--------|----------------------------------------------------------------------------|

Rear Panel Mounting Connector



PX0446

- Mini 'B' type
- Leaded with 5 way header
- Mates with PX0441 & PX0442 type cables

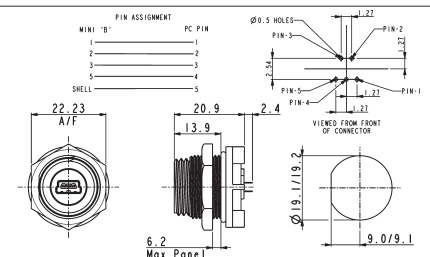


Rear Panel Mounting Connector



PX0447

- Mini 'B' type
- With pins for direct PC mounting
- Mates with PX0441 & PX0442 type cables



**Part no.** **Description**

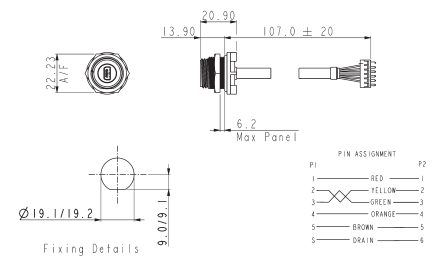
|        |                                                                           |
|--------|---------------------------------------------------------------------------|
| PX0446 | IP68 B type Mini USB, rear panel mounted. 5 way header connector at rear. |
| PX0447 | IP68 B type Mini USB, rear panel mounted. PC terminals at rear.           |

Rear Panel Mounting Connector



PX0457

- Mini 'AB' type
- Leaded with 6 way header
- Mates with PX0441, PX0442 & PX0444 type cables

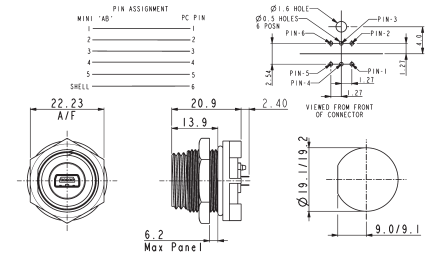


Rear Panel Mounting Connector



PX0458

- Mini 'AB' type
- With pins for direct PC mounting
- Mates with PX0441, PX0442 & PX0444 type cables



**Part no.** **Description**

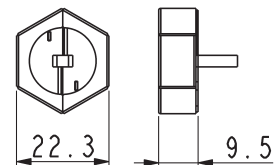
|        |                                                                            |
|--------|----------------------------------------------------------------------------|
| PX0457 | IP68 AB type Mini USB, rear panel mounted. 6 way header connector at rear. |
| PX0458 | IP68 AB type Mini USB, rear panel mounted. PC terminals at rear.           |

Screening Can



PX0464

- Maintains cable screening directly to panel
- Shielding can clips around the panel fixing nut
- For use on PX0459



Accessories



- Sealing caps to maintain IP rating when connectors are not in use
- PCB headers for use with PX0443 & PX0456

**Part no.** **Description**

|        |                                                          |
|--------|----------------------------------------------------------|
| PX0485 | Sealing cap for use with PX0441, PX0442 & PX0444         |
| PX0480 | Sealing cap for use with PX0443 & PX0456                 |
| PX0484 | Sealing cap for use with PX0446, PX0447, PX0457 & PX0458 |
| 14191  | 5 way straight header                                    |
| 14192  | 5 way right angle header                                 |
| 14563  | 6 way straight header                                    |
| 14564  | 6 way right angle header                                 |

## Cables & connectors

### Mechanical

Sealing IP68, EN60529:1992+A2:2013 (10m depth for 2 weeks)  
IP69K, Tested in accordance with DIN 40050/Part 9 IP6k9k

Operating temperature 0°C to +70°C  
Salt Mist EN60068-2-52 Test Kb Salt Mist (Cyclic)  
Marine Severity Level 1

### Electrical

No. of poles 4 and 5  
Current rating 1A  
Voltage rating 30Vac, 42Vdc  
Contact resistance 50m  $\Omega$  max.  
Performance USB version 2.0

### Materials - Overmoulded

Overmould material PVC (black)  
Flammability rating UL94V-0

### Materials - Re-wireable and Panel Connectors

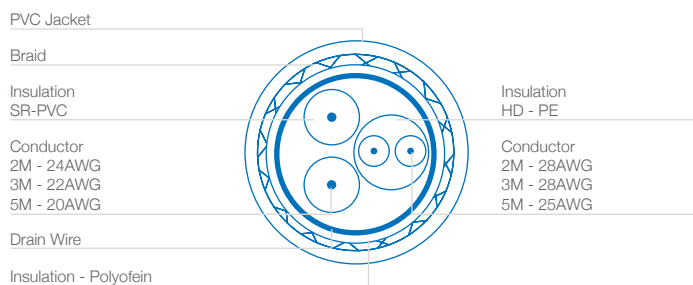
Shell material Steel  
Shell plating Nickel  
Contact material Copper Alloy  
Contact plating 50 micro inch Gold  
Connector body & locking ring Polyester  
Panel connector Nylon 6  
Flammability rating UL94V-0  
'O' rings Nitrile  
Mating cycles 5,000  
**RoHS** Compliant

### Materials - cable

Cable Jacket PVC (black)  
Screen Tinned copper braid  
Flammability UL94V-0  
**RoHS** Compliant

| Length: | Dia   | Conductors<br>Signal | Conductors<br>Power |
|---------|-------|----------------------|---------------------|
| 2m      | 4.8mm | 2 x 28AWG            | 2 x 24AWG           |
| 3m      | 5.0mm | 2 x 28AWG            | 2 x 22AWG           |
| 5m      | 5.2mm | 2 x 25AWG            | 2 x 20AWG           |

## Cable construction - PX0441, PX0442, PX0444





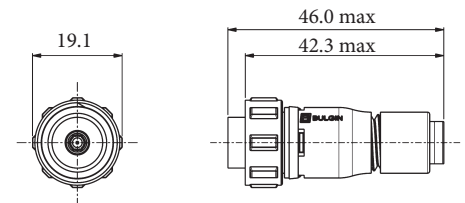
- ⬡ Sealed to IP68 when mated
- ⬡ IP69K, Tested in accordance with DIN 40050/Part 9 IP6k9k
- ⬡ 50Ω Impedance SMB connector
- ⬡ Frequency range 0-4GHz
- ⬡ Contact resistance
  - centre - 6mΩ max.
  - outer - 2.5mΩ max.
- ⬡ Gold plated contacts
- ⬡ Diameter over coupling ring 19mm
- ⬡ Body moulding, Nylon UL94-V0 rated
- ⬡ Two versions of Flex Connector
  - re-wireable
  - pre-wired - lengths 1m, 3m & 5m
- ⬡ Panel connector
  - pre-wired - lengths 0.5m, 1m & 1.5m
- ⬡ Cable accommodation (flex re-wireable), RG-174
- ⬡ Cable type (pre-wired connectors), RG-174

Re- Wireable Flex Connector



PX0415/1

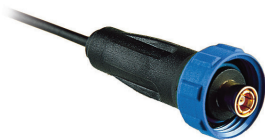
- Mates with Panel connector (PX0414)
- Re-wireable connector
- For RG-174 cable
- Supplied with SMB plug



**Part no.** **Description**

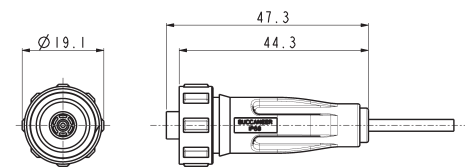
PX0415/1 Re-wireable connector with SMB Plug - for RG-174 cable

Pre- Wireable Flex Connector



PX0416/xMxx

- Mates with Panel connector (PX0414)
- Pre-wired
- Overmoulded construction
- Supplied with SMB plug terminated with RG-174 cable
- 1m, 3m & 5m cable lengths



**Part no.** **Description**

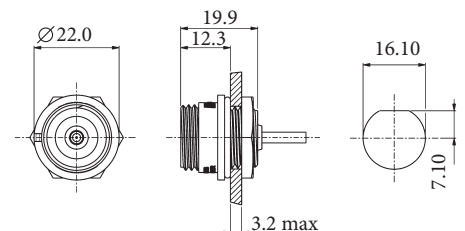
PX0416/1M00 Overmoulded connector with SMB plug - cable length 1m  
 PX0416/3M00 Overmoulded connector with SMB plug - cable length 3m  
 PX0416/5M00 Overmoulded connector with SMB plug - cable length 5m

Panel Mounting Connector



PX0414/xMxx

- Mates with Flex connectors (PX0415, PX0416)
- Single hole fixing
- Supplied with SMB jack terminated with RG-174 cable
- U.FL cable version also available



**Part no.** **Description**

PX0414/0M50 Panel connector with SMB jack - cable length 0.5m  
 PX0414/1M00 Panel connector with SMB jack - cable length 1m  
 PX0414/1M50 Panel connector with SMB jack - cable length 1.5m

Sealing Cap and Accessories

- Sealing caps maintain IP rating when connectors are not in use



PX0480

PX0481

PX0485

**Part no.** **Description**

PX0480 Sealing cap for PX0414 chassis connector  
 PX0481 Sealing cap for PX0415 re-wireable flex connectors  
 PX0485 Sealing cap for PX0416 overmoulded flex connector  
 14319 Hand crimp tool for SMB



#### Electrical

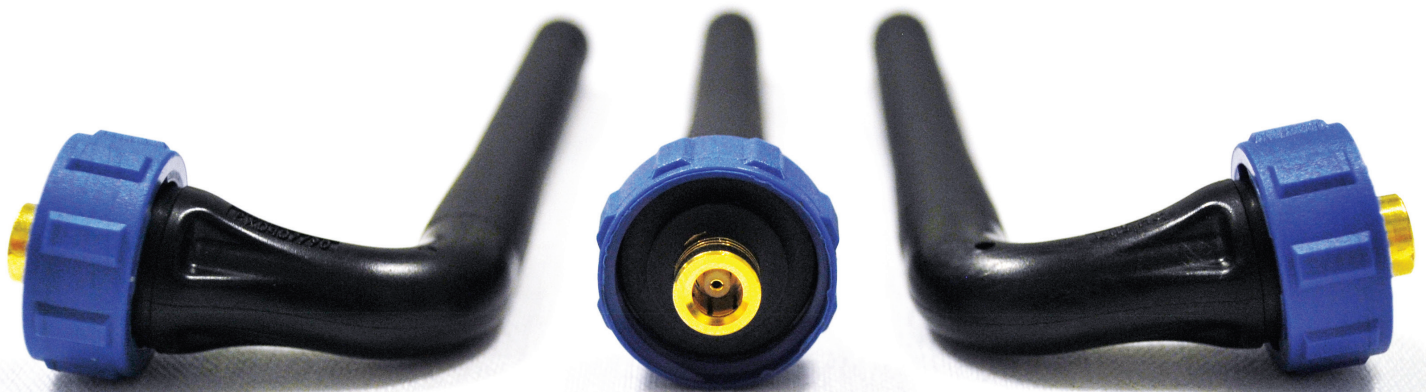
|                       |               |
|-----------------------|---------------|
| Impedance:            | 50Ω           |
| Frequency Range:      | 0-4GHz        |
| Contact Resistance:   |               |
| Centre:               | 6mΩ (max.)    |
| Outer:                | 2.5mΩ (max.)  |
| Insulator Resistance: | 1000MΩ (max.) |

#### Mechanical:

|                             |                                                                 |
|-----------------------------|-----------------------------------------------------------------|
| Sealing:                    | IP69K, Tested in accordance with DIN 40050/Part 9 IP6k9k        |
|                             | IP68, EN60529:1992+A2:2013 (10m depth for 2 weeks)              |
| Salt Mist                   | EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1 |
| Cable Acceptance:           | RG-174                                                          |
| Insertion/Withdrawal Force: |                                                                 |
| Insertion Force:            | 36N                                                             |
| Withdrawal Force:           | 36N                                                             |
| Cable Retention Force:      | 18N                                                             |
| Mating Cycles:              | 500                                                             |
| Operating Temperature:      | -20°C to +80°C                                                  |

#### Material:

|                       |                                           |
|-----------------------|-------------------------------------------|
| PX0415/1 and PX0414   |                                           |
| Body Mouldings:       | Polyamide                                 |
| Flammability Rating:  | UL94V-0                                   |
| UV Resistance:        | To EN 50021:1999                          |
| PX0416                |                                           |
| Body Mouldings:       | PVC (black)                               |
| Flammability Rating:  | UL94V-0                                   |
| O Rings:              | Nitrile                                   |
| Panel Sealing O Ring: | Nitrile                                   |
| SMB Connector         |                                           |
| Body:                 | Brass to QQ-B-626, Gold Plated            |
| Centre Contact:       |                                           |
| Plug:                 | Brass to QQ-B-626, Gold Plated            |
| Jack:                 | Beryllium Copper to QQ-B-530, Gold Plated |
| Insulator:            | Teflon                                    |
| Crimp Ferrules:       | Annealed Copper                           |
| <b>RoHS</b>           | Compliant                                 |



#### SMB Antenna

- ⬡ IP68 Sealing
- ⬡ IP69K, Tested in accordance with DIN 40050/Part 9 IP6k9k
- ⬡ SMB 50 ohm interface
- ⬡ For use with SMB Buccaneer
- ⬡ Three frequency bands:  
440 to 470MHz  
900/1800/1900MHz  
2.4 to 2.5GHz
- ⬡ Maintains sealing integrity of equipment

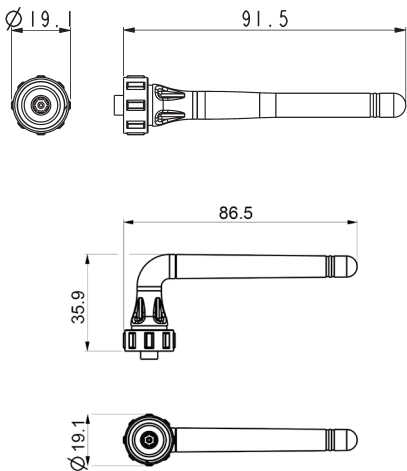
#### Bluetooth Cable Replacement

- ⬡ IP68 Sealing
- ⬡ RS485/RS232 serial interfaces
- ⬡ Serial data to Bluetooth
- ⬡ Wireless transparent data connection
- ⬡ Up to 100m range (class 1)
- ⬡ Maintains sealing integrity of equipment

SMB Antenna



- Dust & waterproof to IP68  
EN60529 when mated
- Secure screw thread locking
- Built-in sealed antenna
- Mates with SMB Buccaneer  
PX0414
- Frequency bands:  
2.4 to 2.5GHz  
440 to 470MHz  
900/1800/1900MHz



| Part no.  | Description                                                    |
|-----------|----------------------------------------------------------------|
| PX0407    | IP68 rated, Buccaneer Antenna, 2.4 to 2.5GHz frequency band    |
| PX0408    | IP68 rated, Buccaneer Antenna, 440 to 470MHz frequency band    |
| PX0409    | IP68 rated, Buccaneer Antenna, 900/1800/1900MHz frequency band |
| PX0407/90 | IP68 rated, Buccaneer Antenna, 2.4 to 2.5GHz frequency band    |
| PX0408/90 | IP68 rated, Buccaneer Antenna, 440 to 470MHz frequency band    |
| PX0409/90 | IP68 rated, Buccaneer Antenna, 900/1800/1900MHz frequency band |

Specification

Electrical

|           |                      |
|-----------|----------------------|
| Frequency |                      |
| PX0407    | 2.4 to 2.5GHz        |
| PX0408    | 440 to 470MHz        |
| PX0409    | 850-900/1800/1900MHz |

|               |              |
|---------------|--------------|
| Configuration |              |
| PX0407        | ¼ Wavelength |
| PX0408        | ½ Wavelength |
| PX0409        | ½ Wavelength |

|              |                 |
|--------------|-----------------|
| Radiation    | Omnidirectional |
| Polarization | Vertical        |
| Impedance    | 50Ω nominal     |
| VSWR         | <2              |

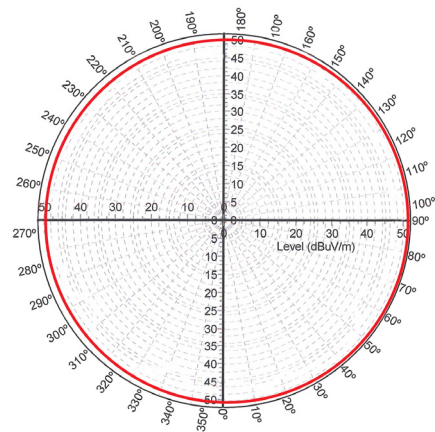
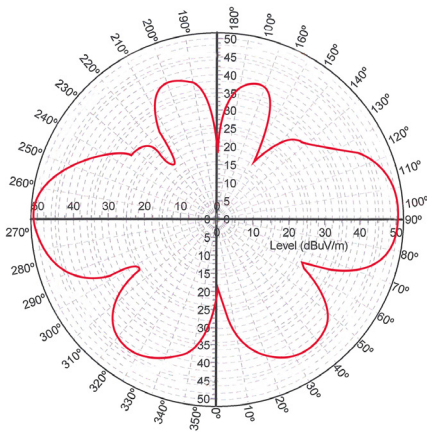
Mechanical

|                        |                                                                                                                            |
|------------------------|----------------------------------------------------------------------------------------------------------------------------|
| Sealing                | IP69K, Tested in accordance with DIN 40050/Part 9 IP6k9k<br>IP68, EN60529:1992+A2:2013, when mated (10m depth for 2 weeks) |
| Operating Temperature: | -20°C to +65°C                                                                                                             |
| Salt Mist              | EN60068-2-52 Test Kb Salt Mist (Cyclic)<br>Marine Severity Level 1                                                         |

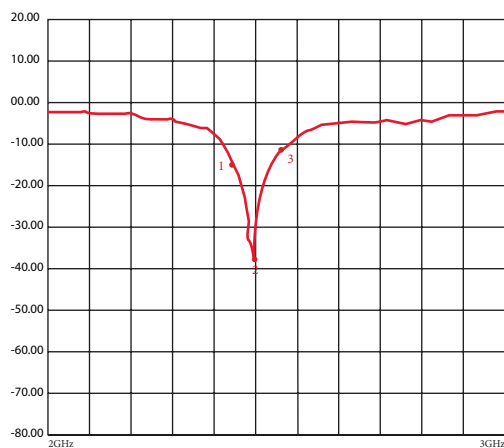
Material

|                     |              |
|---------------------|--------------|
| Body Mouldings      | PVC          |
| Flammability Rating | UL94V-0      |
| UV Resistance       | EN50021:1999 |
| RoHS                | Compliant    |

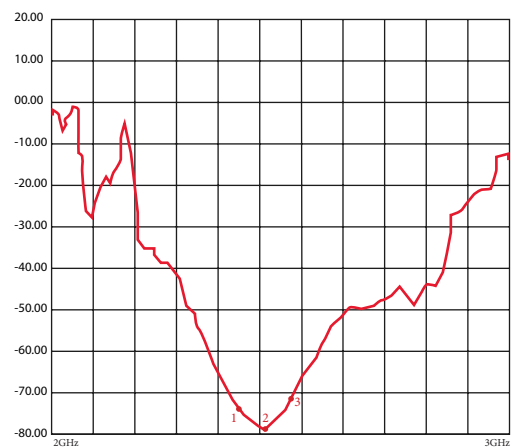
## PX0407 Polar plots



## PX0407 Radiation Pattern plots



- 1 -12624 dB 2.v0 GHz
- 2 -34951 dB 2.45000 GHz
- 3 -12.777 dB 2500.000 000 MHz



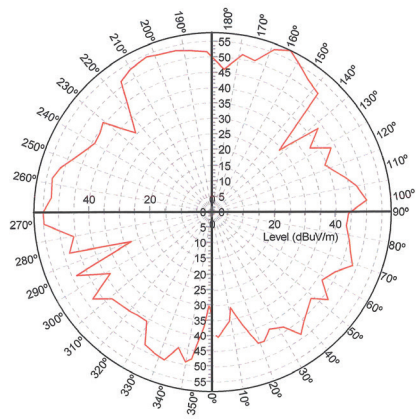
- 1 1.5659 dB 2.40000 GHz
- 2 1.6514 dB 2.45000 GHz
- 3 1.6032 dB 2500.000 000 MHz

# 400 Series - Wireless Buccaneer

Polar/Antenna Plots

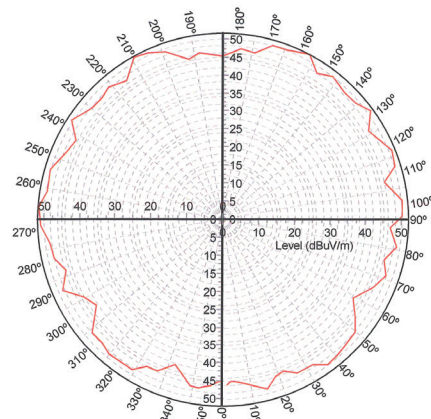


## PX0408 Polar plots



Pattern Field

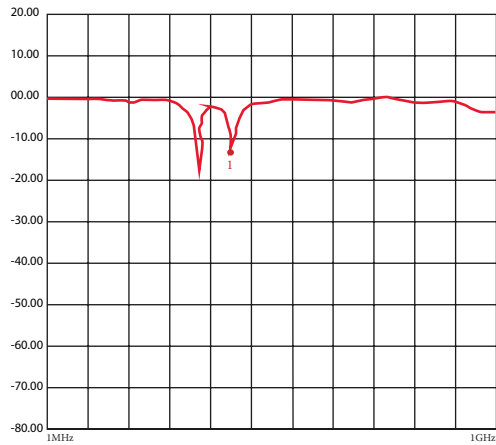
E



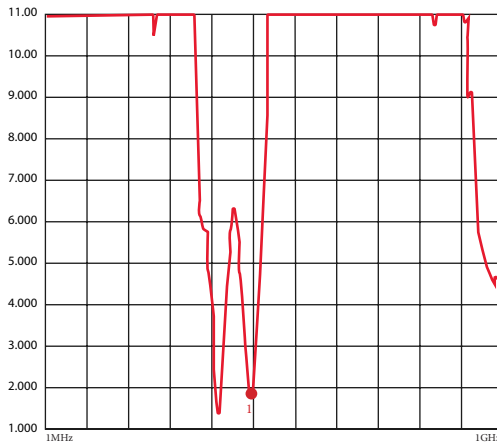
Pattern Field

H

## PX0408 Radiation Pattern plots



1 450.00000 MHz -13.300 dB



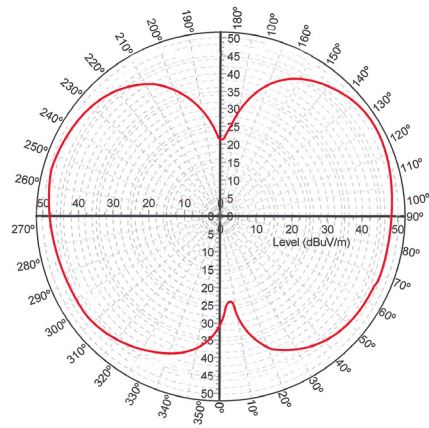
1 450.00000 MHz -13.300 dB

# 400 Series - Wireless Buccaneer

Polar/Antenna Plots

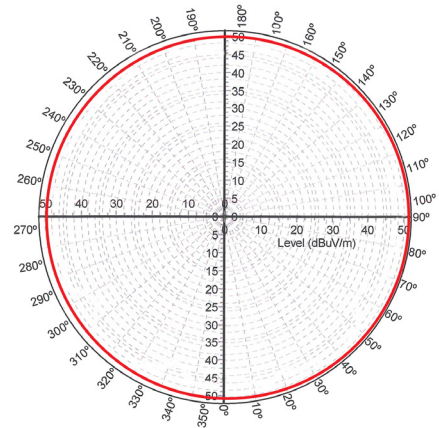


## PX0409 / 900MHz Polar plots



Pattern Field

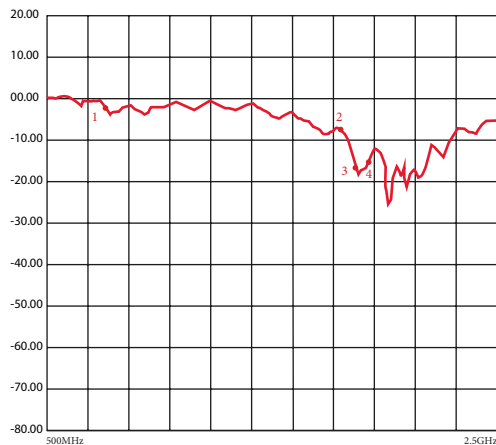
E



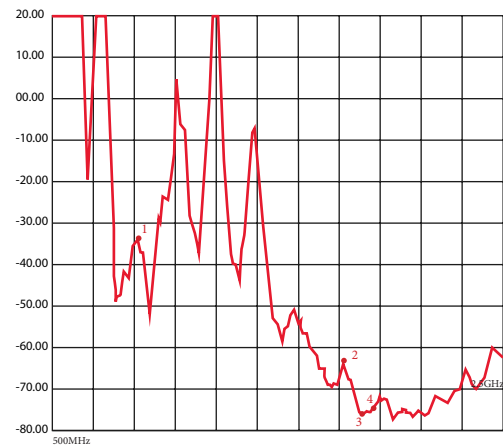
Pattern Field

H

## PX0409 / 900MHz Radiation Pattern plots



1 900.00000 MHz -3.4307 dB  
2 1.8000000 GHz -9.0130 dB  
3 1.8800000 GHz -19.516 dB  
4 1.9000000 GHz -20.297 dB



1 900.00000 MHz 5.1694 dB  
2 1.8000000 GHz 2.2481 dB  
3 1.8800000 GHz 1.2377 dB  
4 1.9000000 GHz 1.2052 dB

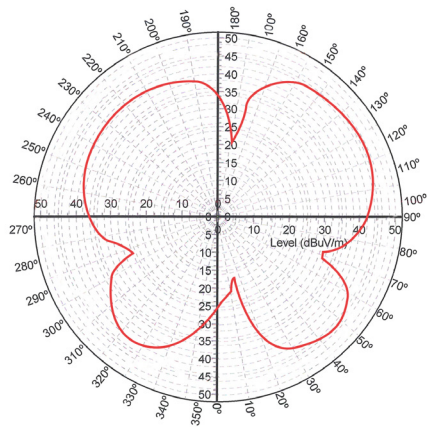


# 400 Series - Wireless Buccaneer

Polar/Antenna Plots

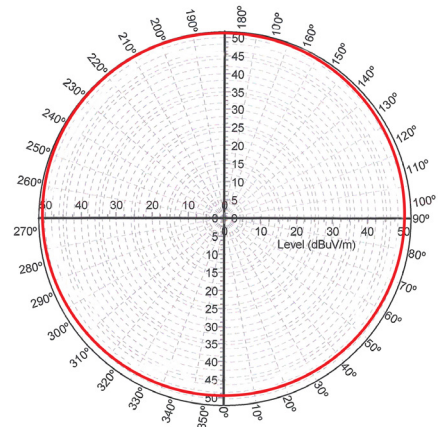


## PX0409 / 1800MHz Polar plots



Pattern Field

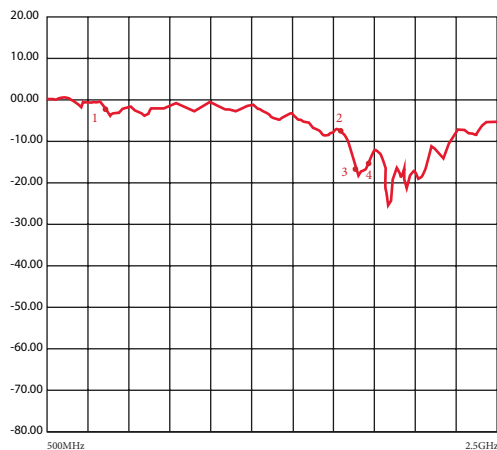
E



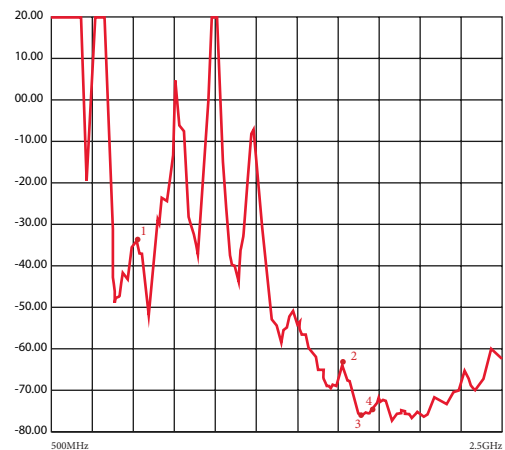
Pattern Field

H

## PX0409 / 1800MHz Radiation Pattern plots



1 900.00000 MHz -3.4307 dB  
2 1.8000000 GHz -9.0130 dB  
3 1.8800000 GHz -19.516 dB  
4 1.9000000 GHz -20.297 dB



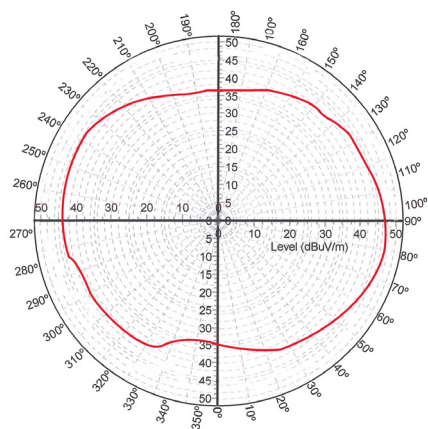
1 900.00000 MHz 5.1694 dB  
2 1.8000000 GHz 2.2481 dB  
3 1.8800000 GHz 1.2377 dB  
4 1.9000000 GHz 1.2052 dB

# 400 Series - Wireless Buccaneer

Polar/Antenna Plots

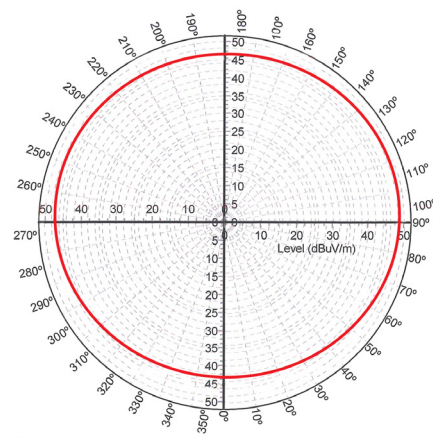


## PX0409 / 1900MHz Polar plots



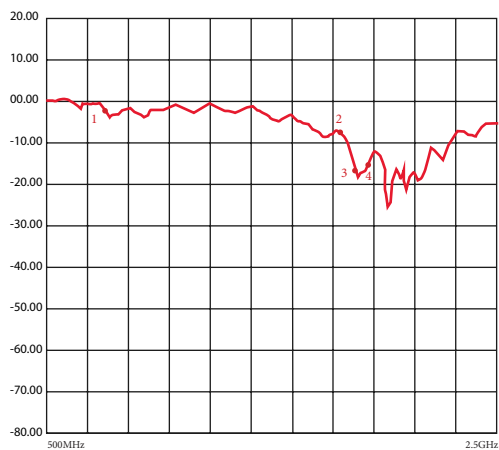
Pattern Field

E

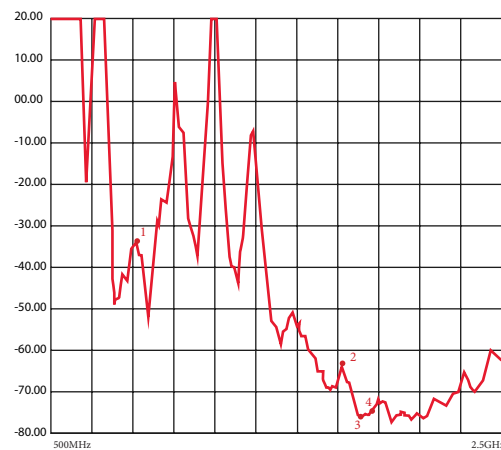


Pattern Field

H



1 900.00000 MHz -3.4307 dB  
2 1.8000000 GHz -9.0130 dB  
3 1.8800000 GHz -19.516 dB  
4 1.9000000 GHz -20.297 dB



1 900.00000 MHz 5.1694 dB  
2 1.8000000 GHz 2.2481 dB  
3 1.8800000 GHz 1.2377 dB  
4 1.9000000 GHz 1.2052 dB

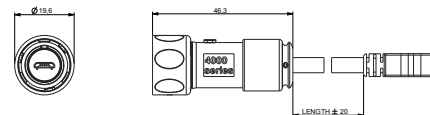


- ⬡ IP66, IP68 and IP69K rated
- ⬡ USB V2.0 performance
- ⬡ Plug and play capability
- ⬡ Shielded system
- ⬡ Overmoulded cables
- ⬡ EN60068-2-52 Test Kb Salt Mist (Cyclic) Marine Severity Level 1
- ⬡ Data rates up to 480Mbps
- ⬡ Secure, proven locking system
- ⬡ Tamperproof Construction
- ⬡ Colour coded O-rings & washers for easy identification purposes



PXP4040

- Standard 'A' type to sealed Micro 'B' type
- Available in 2, 3 & 5m lengths
- Plug variant mates with PXP4043



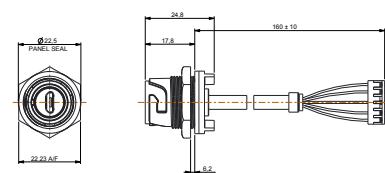
| Part No.       | Length | Description                             |
|----------------|--------|-----------------------------------------|
| PXP4040/B/2M00 | 2.0m   | IP-sealed micro 'B' to Std 'A' type USB |
| PXP4040/B/3M00 | 3.0m   | IP-sealed micro 'B' to Std 'A' type USB |
| PXP4040/B/5M00 | 5.0m   | IP-sealed micro 'B' to Std 'A' type USB |

## Rear Panel Mounting Connector



PXP4043

- Micro 'B' type
- Leaded with 5 way header
- Socket variant mates with PXP4040 type cables



| Part no. | Description                                                                     |
|----------|---------------------------------------------------------------------------------|
| PXP4043  | IP-sealed B type Micro USB, rear panel mounted. 5 way header connector at rear. |

## Accessories



- Sealing caps to maintain IP rating when connectors are not in use

| Part no. | Description                                |
|----------|--------------------------------------------|
| PXP4081  | Sealing cap for use with PXP4010 & PXP4040 |
| PXP4082  | Sealing cap for use with PXP4011           |
| PXP4083  | Sealing cap for use with PXP4013 & PXP4043 |

## Gland Packs



| Part no.     | Description                                                                         |
|--------------|-------------------------------------------------------------------------------------|
| PXP4088/0305 | Pack of 4 pairs cable glands and collets to suit cables from 3.0 to 5.0mm diameter. |
| PXP4088/0507 | Pack of 4 pairs cable glands and collets to suit cables from 5.0 to 7.0mm diameter. |

## O-ring &amp; washer pack



| Part no.   | Description                            |
|------------|----------------------------------------|
| PXP4089/WH | White coloured O-ring and washer pack  |
| PXP4089/RD | Red coloured O-ring and washer pack    |
| PXP4089/BL | Blue coloured O-ring and washer pack   |
| PXP4089/YL | Yellow coloured O-ring and washer pack |
| PXP4089/GN | Green coloured O-ring and washer pack  |

Cables & connectors

Mechanical

|                       |                                                                                                                                   |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Sealing               | IP69K, DIN40050-9<br>IP68, EN60529:1992+A2:2013<br>(10m depth for 2 weeks)<br>IP66, EN60529:1992+A2:2013<br>1.0 - 1.1NM (91lb.in) |
| Panel Mount Nut       | 1.0 - 1.1NM (91lb.in)                                                                                                             |
| Operating temperature | -40°C to +70°C                                                                                                                    |
| Salt Mist             | EN60068-2-52 Test Kb Salt Mist<br>(Cyclic) Marine Severity Level 1                                                                |

Electrical

|                    |                 |
|--------------------|-----------------|
| No. of poles       | 4 and 5         |
| Current rating     | 1A              |
| Voltage rating     | 30Vac, 42Vdc    |
| Contact resistance | 50m Ω max.      |
| Performance        | USB version 2.0 |

Materials - Re-wireable and Panel Connectors

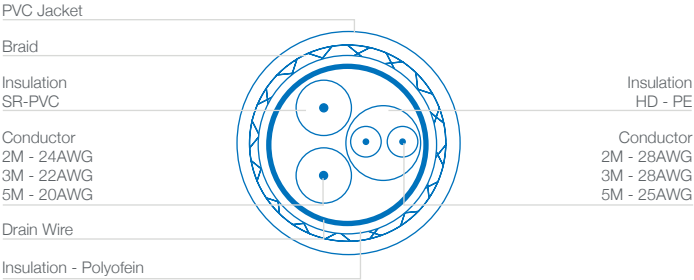
|                               |                    |
|-------------------------------|--------------------|
| Shell material                | Steel              |
| Shell plating                 | Nickel             |
| Contact material              | Copper Alloy       |
| Contact plating               | 50 micro inch Gold |
| Connector body & locking ring | PC/PBT             |
| Panel connector               | PC/PBT             |
| Flammability rating           | UL94V-0            |
| 'O' rings                     | Silicone           |
| Mating cycles                 | 1,000              |
| RoHS                          | Compliant          |

Materials - cable

|              |                     |
|--------------|---------------------|
| Cable Jacket | PVC (black)         |
| Screen       | Tinned copper braid |
| Flammability | UL94V-0             |
| RoHS         | Compliant           |

| Length: | Dia   | Conductors<br>Signal | Conductors<br>Power |
|---------|-------|----------------------|---------------------|
| 2m      | 4.8mm | 2 x 28AWG            | 2 x 24AWG           |
| 3m      | 5.0mm | 2 x 28AWG            | 2 x 22AWG           |
| 5m      | 5.2mm | 2 x 25AWG            | 2 x 20AWG           |

Cable construction - PXP4040 & PXP4043



6000 Series Buccaneer – **circular connectors** that combine the ease of use of a **push/pull coupling mechanism** with proven environmental sealing. Available with **metal** or **plastic** bodies, the range supports both data (USB and Ethernet), signal and mains power. Designed and independently tested to **IP66, IP68 & IP69K** standards, they are ideal for applications where ingress of dust and water must be avoided and where ease of connection, space and appearance are important considerations.

- **30° twist locking**  
Tamperproof lock prevents accidental un-mating
- **IP66, IP68 and IP69K when mated**  
Suitable for a wide range of dust and water borne environments
- **Independent sealing tests**  
IP Ratings independently verified
- **USB version 2.0 performance**  
Low and high speed bus connection, 1.5Mbps to 480Mbps
- **Plug and play capability**  
Hot pluggable, standard 4 pole interface
- **Shielded system**  
High noise immunity and EMI protection
- **Single and double ended cables**  
Suitable for PC and peripheral configuration
- **Push-pull latching system\***  
Secure, instant latching. Quick connector mating and release
- **Cat 5e compliant**  
Data rate up to 100MHz
- **PUR jacket on cable**  
Good chemical resistance, flame retardant
- **Cat 5e shielded coupler**  
Maintains shielding
- **Visual mating indication**  
Alignment indicator reduces risk of damage during mating
- **Earth lead version of panel adaptor on plastic connector**  
Continuous screening of panel mount connector
- **Metal connector grounded to cable screen**  
Continuous screening of panel mount connector
- **Sealed through panel Ethernet**  
Prevent water ingress into equipment
- **EN60068-2-52 Test Kb Salt Mist (Cyclic)**  
Marine Severity Level 1

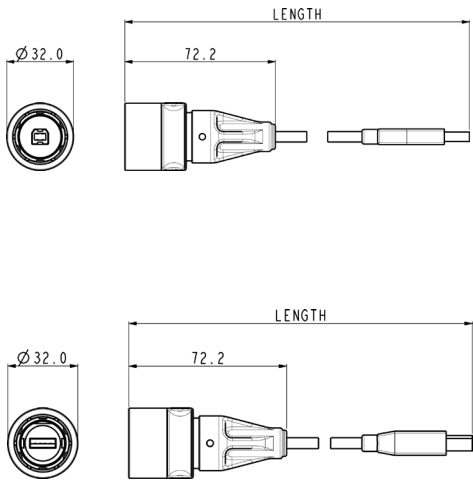




Sealed USB Cables - Single Ended



- Single ended sealed cable assembly
- Mates with all panel mounting connectors
- 30° twist locking
- IP rated 'A' type USB connector to standard 'B' type USB connector, mates with all panel mount connectors
- IP rated 'B' type USB connector to standard 'A' type USB connector, mates with all panel mount connectors
- Available in 2m, 3m and 5m lengths

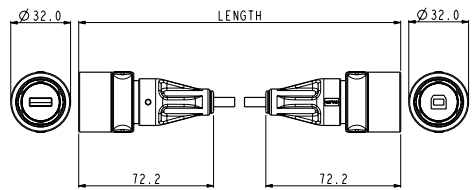


| Part no        | Length | Description                                |
|----------------|--------|--------------------------------------------|
| PXP6040/A/2M00 | 2m     | IP rated A type USB to standard B type USB |
| PXP6040/A/3M00 | 3m     | IP rated A type USB to standard B type USB |
| PXP6040/A/5M00 | 5m     | IP rated A type USB to standard B type USB |
| PXP6040/B/2M00 | 2m     | IP rated B type USB to standard A type USB |
| PXP6040/B/3M00 | 3m     | IP rated B type USB to standard A type USB |
| PXP6040/B/5M00 | 5m     | IP rated B type USB to standard A type USB |

Sealed USB Cables - Double Ended



- Double ended sealed cable assembly
- Mates with all panel mount connectors
- 30° twist locking
- IP rated 'A' type USB connector to 'B' type USB connector
- Available in 2m, 3m and 5m lengths



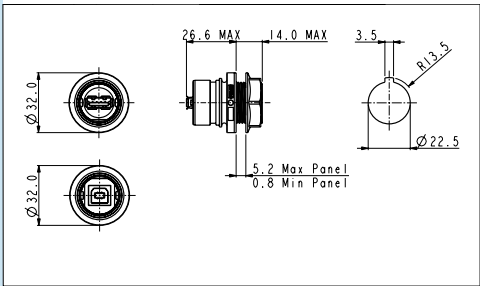
| Part no         | Length | Description                                |
|-----------------|--------|--------------------------------------------|
| PXP6041/AB/2M00 | 2m     | IP rated A type USB to standard B type USB |
| PXP6041/AB/3M00 | 3m     | IP rated A type USB to standard B type USB |
| PXP6041/AB/5M00 | 5m     | IP rated A type USB to standard B type USB |

Front Panel Mounting Connector



PXP6042/B      PXP6042/A

- PXP6042/A - USB 'A' type IP rated connector
- PXP6042/B - USB 'B' type IP rated connector
- Opposite USB type connector to rear of panel
- Mates with PXP6040 and PXP6041 cable connectors



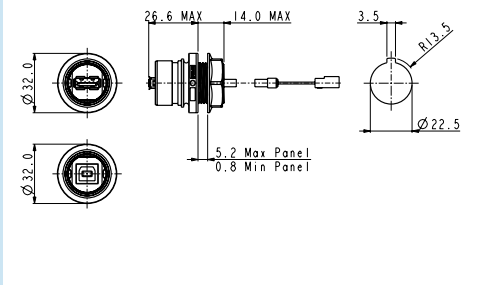
| Part No.  | Description                                                                                         |
|-----------|-----------------------------------------------------------------------------------------------------|
| PXP6042/A | IP rated A type USB, front panel mounted. Sealed A type at front of panel, standard B type at rear. |
| PXP6042/B | IP rated B type USB, front panel mounted. Sealed B type at front of panel, standard A type at rear. |

Front Panel Mounting Connector



PXP6043/B      PXP6043/A

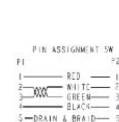
- PXP6043/A - USB 'A' type IP rated connector
- PXP6043/B - USB 'B' type IP rated connector
- Leaded with 5 way crimp connector
- Mates with PXP6040 and PXP6041 cable connectors



| Part No.  | Description                                                                                               |
|-----------|-----------------------------------------------------------------------------------------------------------|
| PXP6043/A | IP rated A type USB, front panel mounted. Sealed A type at front of panel, 5 way crimp connector at rear. |
| PXP6043/B | IP rated B type USB, front panel mounted. Sealed B type at front of panel, 5 way crimp connector at rear. |

This image shows two black USB cables with RJ45 connectors at one end and USB-A connectors at the other. Below the cables is a small pile of loose white RJ45 connectors.

- Standard A and B type USB connectors to 5 way crimp adaptor leads
- 5 way headers, 2.54mm pitch, horizontal or vertical mounting

Part No.

- Sealing caps to maintain IP rating when connectors are not in use
- PXP6081 for cable connectors PXP6040 & PXP6041
- PXP6083 for front panel mount connectors PXP6042 & PXP6043, with 30° twist lock

Part No.

| PXP                       | / | 6XXX                                                                                                                                    | / | X                                                                                                                                                            | / | XXXX                                                                                                                                                                                                                                                                              |
|---------------------------|---|-----------------------------------------------------------------------------------------------------------------------------------------|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Series Designation</b> |   | <b>Series / Body Style</b><br>040 = Single ended cable<br>041 = Double ended cable<br>042 = Panel with adaptor<br>043 = Panel with lead |   | <b>Characteristics</b><br>A = 'A' type sealed interface<br>B = 'B' type sealed interface<br>AB = 'A' & 'B' type sealed interface<br>(for use with 6041 only) |   | <b>Cable length</b><br>2M00 = 2 metre cable length (for use with 6040 and 6041 cables only)<br>3M00 = 3 metre cable length (for use with 6040 and 6041 cables only)<br>5M00 = 5 metre cable length (for use with 6040 and 6041 cables only)<br>Blank for 6042 & 6043 panel bodies |

### Examples

PXP6040/A/2M00 = Cable assembly with sealed 'A' type connector to unsealed 'B' type connector, 2 metres long

PXP6042/A = Panel mounted adaptor with sealed 'A' type to unsealed 'B' type at rear

## Cables & connectors

### Mechanical

|                       |                                                                                                          |
|-----------------------|----------------------------------------------------------------------------------------------------------|
| Sealing               | IP69K, DIN40050-9<br>IP68, EN60529:1992+A2:2013<br>(10m depth for 2 weeks)<br>IP66, EN60529:1992+A2:2013 |
| Salt Mist             | EN60068-2-52 Test Kb Salt Mist<br>(Cyclic) Marine Severity Level 1                                       |
| Operating temperature | 0°C to +70°C                                                                                             |

### Electrical

|                    |                 |
|--------------------|-----------------|
| No. of poles       | 4               |
| Current rating     | 1A              |
| Voltage rating     | 30Vac (RMS)     |
| Contact resistance | 30mΩ max.       |
| Performance        | USB version 2.0 |

### Materials - Overmoulded

|                     |             |
|---------------------|-------------|
| Overmould material  | PVC (black) |
| Flammability rating | UL94V-0     |

### Materials - Re-wireable and Panel Connectors

|                       |                               |
|-----------------------|-------------------------------|
| Plastic               | PC/PBT                        |
| Metal                 | Machined Brass, Nickel Plated |
| Flammability rating   | UL94V-0                       |
| 'O' rings             | Silicone                      |
| Panel Gasket - round  | Silicone                      |
| Panel Gasket - flange | Silicone                      |

### Materials - cable

|              |                     |
|--------------|---------------------|
| Cable Jacket | PVC (black)         |
| Screen       | Tinned copper braid |
| Flammability | UL94V-0             |
| RoHS         | Compliant           |

| Length: | Dia   | Conductors<br>Signal | Conductors<br>Power |
|---------|-------|----------------------|---------------------|
| 2m      | 4.8mm | 2 x 28AWG            | 2 x 24AWG           |
| 3m      | 5.0mm | 2 x 28AWG            | 2 x 22AWG           |
| 5m      | 5.2mm | 2 x 28AWG            | 2 x 20AWG           |

## PCB adaptor leads

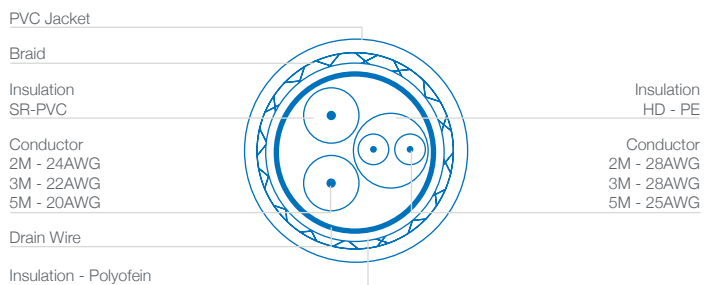
### Electrical

|                    |             |
|--------------------|-------------|
| No. of conductors  | 4           |
| Current rating     | 1A          |
| Voltage rating     | 30Vac (RMS) |
| Contact resistance | <10mΩ max.  |
| PCB pitch          | 2.54mm      |

### Materials

|                       |                    |
|-----------------------|--------------------|
| Moulding              | Polycarbonate      |
| Flammability          | UL94V-0            |
| Contact material      | Copper Alloy       |
| Contact plating       | 30 micro inch Gold |
| Wire insulation       | PVC (black)        |
| Flammability          | UL94-V0            |
| Conductors            | 4 x 28AWG          |
| Operating temperature | 0°C to +70°C       |
| Mating cycles         | 1,000              |
| RoHS                  | Compliant          |

## Cable construction - PXP6040, PXP6041



# BUCCANEER FOR DATA

## 6000 Series Ethernet Buccaneer

Thermo-plastic version

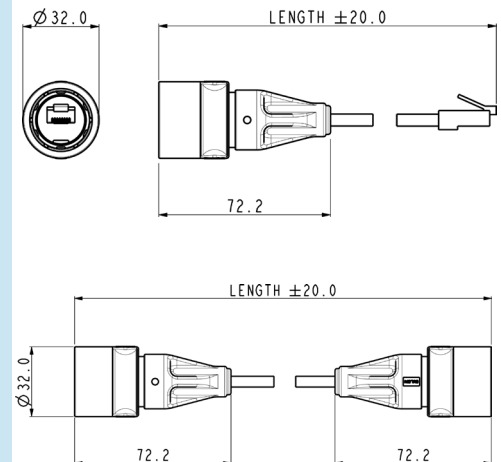


### Patch Cord Flex Connector - Pur Jacket Cable



PXP6037

- Mates with PXP6033TP type panel mounting connectors
- 30° twist locking
- Overmoulded patchcords with IP rated connector
- Supplied with shielded RJ45 plug
- Single or double end terminated
- Standard lengths: 2m, 3m&5m
- S-FTP cable construction
- PUR jacket cable
- Wiring configuration to 568-B
- Exceeds EIA/TIA Cat 5e



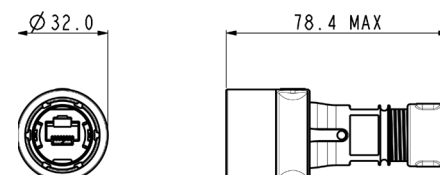
| Part no      | Type         | Length | Description                          |
|--------------|--------------|--------|--------------------------------------|
| PXP6037/2M00 | Single ended | 2m     | IP RJ Buccaneer to Shielded RJ45     |
| PXP6037/3M00 | Single ended | 3m     | IP RJ Buccaneer to Shielded RJ45     |
| PXP6037/5M00 | Single ended | 5m     | IP RJ Buccaneer to Shielded RJ45     |
| PXP6038/2M00 | Double ended | 2m     | IP RJ Buccaneer to IP68 RJ Buccaneer |
| PXP6038/3M00 | Double ended | 3m     | IP RJ Buccaneer to IP68 RJ Buccaneer |
| PXP6038/5M00 | Double ended | 5m     | IP RJ Buccaneer to IP68 RJ Buccaneer |

### Rewireable Flex Connector



PXP6034

- Mates with PXP6033TP type panel mounting connectors
- 30° twist locking
- Supplied with shielded RJ45 plug
- Two versions:  
for PUR jacket cable (Cat 5e)  
for other cable sizes from  
4.0 to 10.0mm dia.



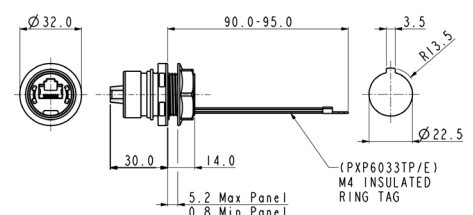
| Part no   | Description                                                                |
|-----------|----------------------------------------------------------------------------|
| PXP6034/A | Cable glands optimised for PUR jacket cable to maintain Cat 5e performance |
| PXP6034/B | Suitable for use with cables from 4.0 to 10.0mm diameter                   |

### Front Panel Mounting Connector



PXP6033TP

- Sealed through panel
- Cat 5e shielded coupler
- Mates with all plastic flex connectors
- Standard RJ45 patchcord can be plugged into rear
- Version with earth wire available
- Single hole fixing
- Complete with panel sealing gasket



| Part no     | Description                 | Fixing                                     |
|-------------|-----------------------------|--------------------------------------------|
| PXP6033TP   | Cat 5e coupler              | Front panel mounted - sealed through panel |
| PXP6033TP/E | Cat 5e coupler + earth wire | Front panel mounted - sealed through panel |

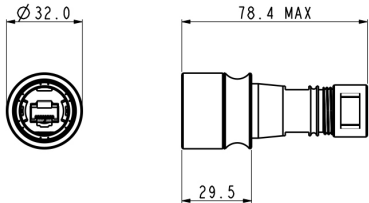


Re-wireable Flex Connector



PXM6034

- Mates with PXM6033TP type panel mounting connectors
- 30° twist locking
- Supplied with shielded RJ45 plug
- Two versions:  
for PUR jacket cable (Cat 5e)  
for other cable sizes from 4.0 to 10.0mm dia.



Technical drawing showing dimensions:  $\varnothing 32.0$ , 78.4 MAX, 29.5

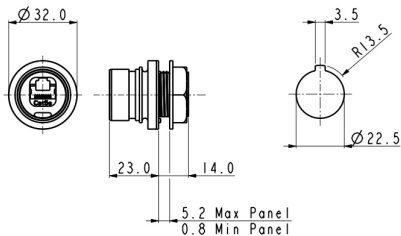
| Part no   | Description                                                                |
|-----------|----------------------------------------------------------------------------|
| PXM6034/A | Cable glands optimised for PUR jacket cable to maintain Cat 5e performance |
| PXM6034/B | Suitable for use with cables from 4.0 to 10.0mm diameter                   |

Front Panel Mounting Connector



PXM6033

- Sealed through panel
- Cat 5e shielded coupler
- Mates with PXM6034 type flex connectors
- Standard RJ45 patchcord can be plugged into rear
- Connector shell ground to cable screen
- Single hole fixing
- Complete with panel sealing gasket



Technical drawing showing dimensions:  $\varnothing 32.0$ , 23.0, 14.0, 5.2 Max Panel, 0.8 Min Panel, 3.5, R13.5,  $\varnothing 22.5$

| Part no   | Description    | Fixing                                     |
|-----------|----------------|--------------------------------------------|
| PXM6033TP | Cat 5e coupler | Front panel mounted - sealed through panel |

Accessories For Ethernet Connectors

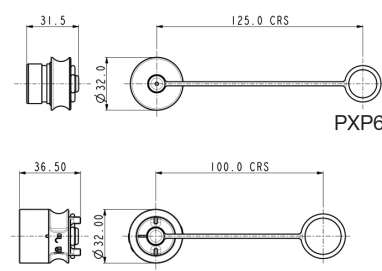


PXM6034

Plastic connectors

- PXP6081 for cable connectors
- PXP6034, PXP6037 & PXP6038
- PXP6083 for front panel mount connectors PXP6033, with 30° twist lock

Sealing caps to maintain IP rating when connectors are not in use



PXP6081

PXP6083

| Part no | Description                                            |
|---------|--------------------------------------------------------|
| PXP6081 | Sealing Cap for plastic Flex cable connectors          |
| PXP6083 | Sealing Cap for plastic front panel mounting connector |

Accessories For Ethernet Connectors

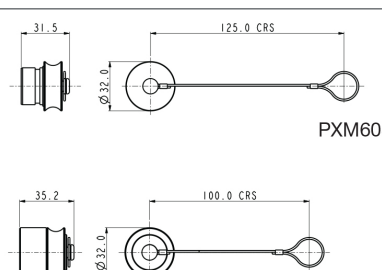


PXM6033

Metal connectors

- PXM6081 for cable connectors
- PXM6034
- PXM6083 for front panel mount connectors

Sealing caps to maintain IP rating when connectors are not in use



PXM6081

PXM6083

| Part no | Description                                          |
|---------|------------------------------------------------------|
| PXM6081 | Sealing Cap for metal Flex cable connectors          |
| PXM6083 | Sealing Cap for metal front panel mounting connector |
| 14151   | Hand crimp tooling + die set                         |
| 14199   | PUR Jacket cable - 50m reel                          |
| 14150   | Replacement shielded RJ45                            |



| PX X                                                      | 6XXX                                                                                                                                    | XX                                                                                                                      | X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Series Designation</b><br>PXP - Plastic<br>PXM - Metal | <b>Series / Body Style</b><br>033 = Panel<br>034 = Re-wireable Flex<br>037 = Patchcord (Single Ended)<br>038 = Patchcord (Double Ended) | <b>Panel Sealing</b><br>TP = through panel sealing (for use with PXP6033 panel body only)<br><br>Blank = not applicable | <b>Characteristics</b><br>E = Earth lead (for use with PXP6033 plastic panel body only)<br>A = Glanding for PUR cable (for use with PXP6034 re-wireable flex only)<br>B = Glanding for 3.5 to 8mm cables (for use with PXP6034 re-wireable flex only)<br>2M00 = 2 metre cable length (for use with PXP6037 and PXP6038 patchcords only)<br>3M00 = 3 metre cable length (for use with PXP6037 and PXP6038 patchcords only)<br>5M00 = 5 metre cable length (for use with PXP6037 and PXP6038 patchcords only) |

Examples

- PXP6033TP/E= Panel mounted coupler, sealed through panel with earth lead
- PXP6037/2M00= Patchcord with one sealed end, 2 metres long
- PXM6034/A = Flex re-wireable connector for use with PUR cable
- PXM6033TP = Panel mounted coupler, through panel sealed

## Ethernet – Metal and Thermo-plastic versions

### Connectors

#### Mechanical

|                        |                                                                                                          |
|------------------------|----------------------------------------------------------------------------------------------------------|
| Sealing                | IP69K, DIN40050-9<br>IP68, EN60529:1992+A2:2013<br>(10m depth for 2 weeks)<br>IP66, EN60529:1992+A2:2013 |
| Salt Mist:             | EN60068-2-52 Test Kb Salt Mist<br>(Cyclic) Marine Severity Level 1                                       |
| Operating Temperature  |                                                                                                          |
| Re-wireable and Metal  | -20°C to +70°C                                                                                           |
| Overmoulded patchcords | 0°C to +70°C                                                                                             |

#### Materials - Overmoulded

|                     |             |
|---------------------|-------------|
| Overmould material  | PVC (black) |
| Flammability rating | UL94V-0     |

#### Materials - Re-wireable and Panel Connectors

|                       |                               |
|-----------------------|-------------------------------|
| Plastic               | PC/PBT                        |
| Metal                 | Machined Brass, Nickel Plated |
| Flammability rating   | UL94V-0                       |
| 'O' rings             | Silicone                      |
| Panel Gasket - round  | Silicone                      |
| Panel Gasket - flange | Silicone                      |
| Approvals             |                               |

|      |           |
|------|-----------|
| RoHS | Compliant |
|------|-----------|

#### Stranded S-FTP Patch cord cable - PUR Jacket

Polyurethane (PUR) jacket cable with internal construction exceeding Cat 5e performance levels. The PUR jacket has excellent abrasion, chemical and ozone resistance, low smoke, low halogen flame retardant construction suitable for internal and external industrial environments.

#### Cable

|                  |                                                                 |
|------------------|-----------------------------------------------------------------|
| Conductors       | 24AWG (7/0.2mm) bare copper                                     |
| Insulation       | HD-PE                                                           |
| Pair             | 2 of the above cores twisted                                    |
| Core             | 4 of the above cores                                            |
| Tape             | 1 lap mylar tape                                                |
| Screen           | 1 layer mylar and aluminium tape,<br>0.12mm tinned copper braid |
| Sheath           | PUR Jacket Black                                                |
| Op Temperature   | -25°C to +85°C                                                  |
| Min. bend radius | 10 x o/d (installation)                                         |
| Min. bend radius | 6 x o/d (installed)                                             |
| Diameter         | 6.1mm nominal                                                   |

#### Electrical @ 20°C

|                           |                       |
|---------------------------|-----------------------|
| Characteristic Impedance  | 100Ω ±15Ω @ 100MHz    |
| Capacitance               | 330pF/km              |
| Conductor Loop resistance | 29Ω/100m maximum      |
| Skew                      | 45 nsec/100m @ 100MHz |
| TIA/EIA Rating            | Cat 5e                |

#### Cable construction - PXP6037, PXP6038 and 14199

### PCB adaptor leads

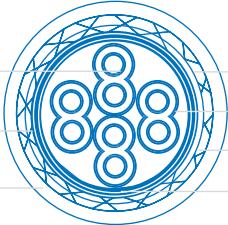
#### Electrical

|                    |             |
|--------------------|-------------|
| No. of conductors  | 4           |
| Current rating     | 1A          |
| Voltage rating     | 30Vac (RMS) |
| Contact resistance | <10mΩ max.  |
| PCB pitch          | 2.54mm      |

#### Materials

|                       |                    |
|-----------------------|--------------------|
| Moulding              | Polycarbonate      |
| Flammability          | UL94V-0            |
| Contact material      | Copper Alloy       |
| Contact plating       | 30 micro inch Gold |
| Wire insulation       | PVC (black)        |
| Flammability          | UL94-V0            |
| Conductors            | 4 x 28AWG          |
| Operating temperature | 0°C to +70°C       |
| Mating cycles         | 1,000              |
| RoHS                  | Compliant          |

### Cable construction - PXP6040, PXP6041

|                                |                                                                                      |                     |
|--------------------------------|--------------------------------------------------------------------------------------|---------------------|
| 24 AWG -<br>7/0.20mm conductor |  | Mylar tape          |
| Braiding<br>7/0.12mm           |                                                                                      | Insulation - HD-PE  |
| Jacket<br>6.10mm dia.          |                                                                                      | Aluminium/PEPT tape |
|                                |                                                                                      | Drain Wire          |

The M-Series Buccaneer range has been designed to offer flexible connectivity solutions for a variety of **industrial automation** applications. With metal and plastic variants, these **rugged** and **robust** interconnects are ideal for industries requiring **secure** and **reliable connections**.

- ⬢ Available types: M5, M8, M12, M16 & M23
- ⬢ Reliable sensor, actuator and data connectivity solutions
- ⬢ Straight and right angled configurations
- ⬢ Quick and secure screw coupling mechanism
- ⬢ Backwards compatible versions
- ⬢ Available as field attachable connectors, receptacles or with overmolded cables
- ⬢ Plastic and Metal Variants
- ⬢ Ratings from 1A, 30V ac/dc up to 8A, 250V ac/dc
- ⬢ Overmolded cables PVC & PUR
- ⬢ IP67 Rating
- ⬢ Cable lengths from 1m - 15m
- ⬢ A, B and D Coding Options
- ⬢ Power Distribution Units Available



|                             |         |
|-----------------------------|---------|
| M5 Series                   | 106-110 |
| M8 Series                   | 111-119 |
| M12 Series                  | 120-131 |
| M16 Series                  | 132-135 |
| M23 Series                  | 136-138 |
| M-Series Distribution Units | 139-142 |

Bulgin's M-Series connector range is the ideal connectivity solution for **industrial automation** technologies that require fast, secure and reliable connections with a **high degree of environmental protection**.



Bulgin's automation interconnect range includes circular metric connectors with industry standard M5, M8, M12, M16 & M23 threads in addition to panel mount receptacles, overmolded cable variants and power/signal distributor units. This comprehensive product portfolio offers a large degree of flexibility with chemically and mechanically robust connectors that are easy to install, help decrease downtime and increase production efficiency in a wide range of markets.

## Applications include:

- ⬡ Factory Automation
- ⬡ Robotics
- ⬡ Measurement & Instrumentation
- ⬡ Manufacturing & Machine Tools
- ⬡ Process Control Systems
- ⬡ Medical
- ⬡ Food & Beverage Processing
- ⬡ Industrial Network



The most **compact connector** type in the M-Series range, Bulgin's **waterproof M5 sensor connectors** come in straight and angled forms with **PVC** or **PUR overmolded cable** options and a variety of panel mount receptacles.



With an industry standard screw coupling mechanism and IP67 rating, this circular connector product line is particularly suited to automotive, process control, commercial electronics & instrumentation applications that require reliable and robust miniature sensors.

## Key features:

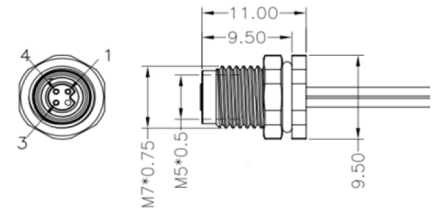
- Secure & reliable screw locking mechanism
- Robust PVC & PUR overmolded cables
- Cable length from 1m - 15m
- High degree of environmental protection - IP67 rated
- Straight & right angled cable connectors
- Rear & front panel mount receptacles
- Available with 3 or 4 poles

M5 Rear Panel Mounting Female



PXMBNI05RPF

- Available in 3 and 4 poles
- PCB or flying lead termination
- Rear panel mounting M7 nut
- Available in 3 and 4 poles
- PCB or flying lead termination
- Mates with Flex Inline Body connectors



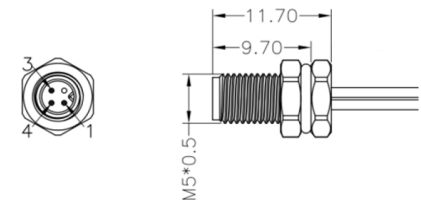
| Part Number         | Poles | Code | Termination  | Lead Length |
|---------------------|-------|------|--------------|-------------|
| PXMBNI05RPF03AFL001 | 03    | A    | Flying Lead  | 100 mm      |
| PXMBNI05RPF03AFL002 | 03    | A    | Flying Lead  | 200 mm      |
| PXMBNI05RPF03AFL003 | 03    | A    | Flying Lead  | 300 mm      |
| PXMBNI05RPF04AFL001 | 04    | A    | Flying Lead  | 100 mm      |
| PXMBNI05RPF04AFL002 | 04    | A    | Flying Lead  | 200 mm      |
| PXMBNI05RPF04AFL003 | 04    | A    | Flying Lead  | 300 mm      |
| PXMBNI05RPF03APC    | 03    | A    | PCB Terminal | -           |
| PXMBNI05RPF04APC    | 04    | A    | PCB Terminal | -           |

M5 Rear Panel Mounting Male



PXMBNI05RPM

- Available in 3 and 4 poles
- PCB or flying lead termination
- Rear panel mounting M5 nut
- Mates with Flex Body connectors



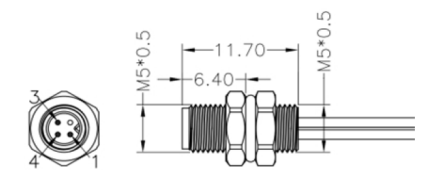
| Part Number         | Poles | Code | Termination  | Lead Length |
|---------------------|-------|------|--------------|-------------|
| PXMBNI05RPM03AFL001 | 03    | A    | Flying Lead  | 100 mm      |
| PXMBNI05RPM03AFL002 | 03    | A    | Flying Lead  | 200 mm      |
| PXMBNI05RPM03AFL003 | 03    | A    | Flying Lead  | 300 mm      |
| PXMBNI05RPM04AFL001 | 04    | A    | Flying Lead  | 100 mm      |
| PXMBNI05RPM04AFL002 | 04    | A    | Flying Lead  | 200 mm      |
| PXMBNI05RPM04AFL003 | 04    | A    | Flying Lead  | 300 mm      |
| PXMBNI05RPM03APC    | 03    | A    | PCB Terminal | -           |
| PXMBNI05RPM04APC    | 04    | A    | PCB Terminal | -           |

M5 Front Panel Mounting Male



PXMBNI05FPM

- Available in 3 and 4 poles
- PCB or flying lead termination
- Rear panel mounting M5
- Mates with Flex Body connectors



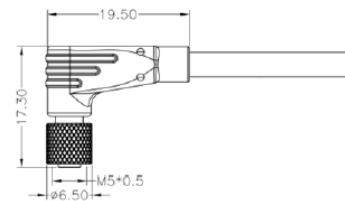
| Part Number         | Poles | Code | Termination  | Lead Length |
|---------------------|-------|------|--------------|-------------|
| PXMBNI05FPM03AFL001 | 03    | A    | Flying Lead  | 100 mm      |
| PXMBNI05FPM03AFL002 | 03    | A    | Flying Lead  | 200 mm      |
| PXMBNI05FPM03AFL003 | 03    | A    | Flying Lead  | 300 mm      |
| PXMBNI05FPM04AFL001 | 04    | A    | Flying Lead  | 100 mm      |
| PXMBNI05FPM04AFL002 | 04    | A    | Flying Lead  | 200 mm      |
| PXMBNI05FPM04AFL003 | 04    | A    | Flying Lead  | 300 mm      |
| PXMBNI05FPM03APC    | 03    | A    | PCB Terminal | -           |
| PXMBNI05FPM04APC    | 04    | A    | PCB Terminal | -           |

#### M5 Right Angled Female



PXPTPU05RAF  
PXPPVC05RAF

- Available in 3 and 4 poles
- 1,2,3,5,10 & 15M cable options
- Overmold Flex Body
- Mates with Flex Inline Body & panel mount connectors



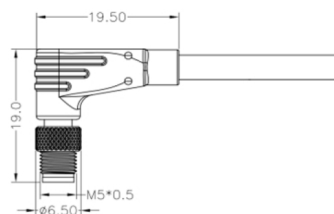
| Part Number            | Poles | Code | Termination    | Lead Length | Cable Material |
|------------------------|-------|------|----------------|-------------|----------------|
| PXPPVC05RAF03ACL010PVC | 03    | A    | Overmold Cable | 1m          | PVC            |
| PXPTPU05RAF03ACL010PUR | 03    | A    | Overmold Cable | 1m          | PUR            |
| PXPPVC05RAF03ACL020PVC | 03    | A    | Overmold Cable | 2m          | PVC            |
| PXPTPU05RAF03ACL020PUR | 03    | A    | Overmold Cable | 2m          | PUR            |
| PXPPVC05RAF03ACL030PVC | 03    | A    | Overmold Cable | 3m          | PVC            |
| PXPTPU05RAF03ACL030PUR | 03    | A    | Overmold Cable | 3m          | PUR            |
| PXPPVC05RAF03ACL050PVC | 03    | A    | Overmold Cable | 5m          | PVC            |
| PXPTPU05RAF03ACL050PUR | 03    | A    | Overmold Cable | 5m          | PUR            |
| PXPPVC05RAF03ACL100PVC | 03    | A    | Overmold Cable | 10m         | PVC            |
| PXPTPU05RAF03ACL100PUR | 03    | A    | Overmold Cable | 10m         | PUR            |
| PXPPVC05RAF03ACL150PVC | 03    | A    | Overmold Cable | 15m         | PVC            |
| PXPTPU05RAF03ACL150PUR | 03    | A    | Overmold Cable | 15m         | PUR            |
| PXPPVC05RAF04ACL010PVC | 04    | A    | Overmold Cable | 1m          | PVC            |
| PXPTPU05RAF04ACL010PUR | 04    | A    | Overmold Cable | 1m          | PUR            |
| PXPPVC05RAF04ACL020PVC | 04    | A    | Overmold Cable | 2m          | PVC            |
| PXPTPU05RAF04ACL020PUR | 04    | A    | Overmold Cable | 2m          | PUR            |
| PXPPVC05RAF04ACL030PVC | 04    | A    | Overmold Cable | 3m          | PVC            |
| PXPTPU05RAF04ACL030PUR | 04    | A    | Overmold Cable | 3m          | PUR            |
| PXPPVC05RAF04ACL050PVC | 04    | A    | Overmold Cable | 5m          | PVC            |
| PXPTPU05RAF04ACL050PUR | 04    | A    | Overmold Cable | 5m          | PUR            |
| PXPPVC05RAF04ACL100PVC | 04    | A    | Overmold Cable | 10m         | PVC            |
| PXPTPU05RAF04ACL100PUR | 04    | A    | Overmold Cable | 10m         | PUR            |
| PXPPVC05RAF04ACL150PVC | 04    | A    | Overmold Cable | 15m         | PVC            |
| PXPTPU05RAF04ACL150PUR | 04    | A    | Overmold Cable | 15m         | PUR            |

#### M5 Right Angled Male



PXPTPU05RAM  
PXPPVC05RAM

- Available in 3 and 4 poles
- 1,2,3,5,10 & 15M cable options
- Overmold Flex Inline Body
- Mates with Flex Body & panel mount connectors



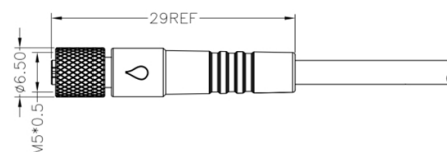
| Part Number            | Poles | Code | Termination    | Lead Length | Cable Material |
|------------------------|-------|------|----------------|-------------|----------------|
| PXPPVC05RAM03ACL010PVC | 03    | A    | Overmold Cable | 1m          | PVC            |
| PXPTPU05RAM03ACL010PUR | 03    | A    | Overmold Cable | 1m          | PUR            |
| PXPPVC05RAM03ACL020PVC | 03    | A    | Overmold Cable | 2m          | PVC            |
| PXPTPU05RAM03ACL020PUR | 03    | A    | Overmold Cable | 2m          | PUR            |
| PXPPVC05RAM03ACL030PVC | 03    | A    | Overmold Cable | 3m          | PVC            |
| PXPTPU05RAM03ACL030PUR | 03    | A    | Overmold Cable | 3m          | PUR            |
| PXPPVC05RAM03ACL050PVC | 03    | A    | Overmold Cable | 5m          | PVC            |
| PXPTPU05RAM03ACL050PUR | 03    | A    | Overmold Cable | 5m          | PUR            |
| PXPPVC05RAM03ACL100PVC | 03    | A    | Overmold Cable | 10m         | PVC            |
| PXPTPU05RAM03ACL100PUR | 03    | A    | Overmold Cable | 10m         | PUR            |
| PXPPVC05RAM03ACL150PVC | 03    | A    | Overmold Cable | 15m         | PVC            |
| PXPTPU05RAM03ACL150PUR | 03    | A    | Overmold Cable | 15m         | PUR            |
| PXPPVC05RAM04ACL010PVC | 04    | A    | Overmold Cable | 1m          | PVC            |
| PXPTPU05RAM04ACL010PUR | 04    | A    | Overmold Cable | 1m          | PUR            |
| PXPPVC05RAM04ACL020PVC | 04    | A    | Overmold Cable | 2m          | PVC            |
| PXPTPU05RAM04ACL020PUR | 04    | A    | Overmold Cable | 2m          | PUR            |
| PXPPVC05RAM04ACL030PVC | 04    | A    | Overmold Cable | 3m          | PVC            |
| PXPTPU05RAM04ACL030PUR | 04    | A    | Overmold Cable | 3m          | PUR            |
| PXPPVC05RAM04ACL050PVC | 04    | A    | Overmold Cable | 5m          | PVC            |
| PXPTPU05RAM04ACL050PUR | 04    | A    | Overmold Cable | 5m          | PUR            |
| PXPPVC05RAM04ACL100PVC | 04    | A    | Overmold Cable | 10m         | PVC            |
| PXPTPU05RAM04ACL100PUR | 04    | A    | Overmold Cable | 10m         | PUR            |
| PXPPVC05RAM04ACL150PVC | 04    | A    | Overmold Cable | 15m         | PVC            |
| PXPTPU05RAM04ACL150PUR | 04    | A    | Overmold Cable | 15m         | PUR            |

#### M5 Flex Body Female



PXPTPU05FBF  
PXPPVC05FBF

- Available in 3 and 4 poles
- Overmold Flex Body
- 1,2,3,5,10 & 15M cable options
- Mates with Flex Inline Body & panel mount connectors



| Part Number            | Poles | Code | Termination    | Lead Length | Cable Material |
|------------------------|-------|------|----------------|-------------|----------------|
| PXPPVC05FBF03ACL010PVC | 03    | A    | Overmold Cable | 1m          | PVC            |
| PXPTPU05FBF03ACL010PUR | 03    | A    | Overmold Cable | 1m          | PUR            |
| PXPPVC05FBF03ACL020PVC | 03    | A    | Overmold Cable | 2m          | PVC            |
| PXPTPU05FBF03ACL020PUR | 03    | A    | Overmold Cable | 2m          | PUR            |
| PXPPVC05FBF03ACL030PVC | 03    | A    | Overmold Cable | 3m          | PVC            |
| PXPTPU05FBF03ACL030PUR | 03    | A    | Overmold Cable | 3m          | PUR            |
| PXPPVC05FBF03ACL050PVC | 03    | A    | Overmold Cable | 5m          | PVC            |
| PXPTPU05FBF03ACL050PUR | 03    | A    | Overmold Cable | 5m          | PUR            |
| PXPPVC05FBF03ACL100PVC | 03    | A    | Overmold Cable | 10m         | PVC            |
| PXPTPU05FBF03ACL100PUR | 03    | A    | Overmold Cable | 10m         | PUR            |
| PXPPVC05FBF03ACL150PVC | 03    | A    | Overmold Cable | 15m         | PVC            |
| PXPTPU05FBF03ACL150PUR | 03    | A    | Overmold Cable | 15m         | PUR            |
| PXPPVC05FBF04ACL010PVC | 04    | A    | Overmold Cable | 1m          | PVC            |
| PXPTPU05FBF04ACL010PUR | 04    | A    | Overmold Cable | 1m          | PUR            |
| PXPPVC05FBF04ACL020PVC | 04    | A    | Overmold Cable | 2m          | PVC            |
| PXPTPU05FBF04ACL020PUR | 04    | A    | Overmold Cable | 2m          | PUR            |
| PXPPVC05FBF04ACL030PVC | 04    | A    | Overmold Cable | 3m          | PVC            |
| PXPTPU05FBF04ACL030PUR | 04    | A    | Overmold Cable | 3m          | PUR            |
| PXPPVC05FBF04ACL050PVC | 04    | A    | Overmold Cable | 5m          | PVC            |
| PXPTPU05FBF04ACL050PUR | 04    | A    | Overmold Cable | 5m          | PUR            |
| PXPPVC05FBF04ACL100PVC | 04    | A    | Overmold Cable | 10m         | PVC            |
| PXPTPU05FBF04ACL100PUR | 04    | A    | Overmold Cable | 10m         | PUR            |
| PXPPVC05FBF04ACL150PVC | 04    | A    | Overmold Cable | 15m         | PVC            |
| PXPTPU05FBF04ACL150PUR | 04    | A    | Overmold Cable | 15m         | PUR            |

#### M5 Flex Inline Body Male



PXPTPU05FIM  
PXPPVC05FIM

- Available in 3 and 4 poles
- 1,2,3,5,10 & 15M cable options
- Overmold Flex Inline Body
- Mates with Flex Body & panel mount connectors



| Part Number            | Poles | Code | Termination    | Lead Length | Cable Material |
|------------------------|-------|------|----------------|-------------|----------------|
| PXPPVC05FIM03ACL010PVC | 03    | A    | Overmold Cable | 1m          | PVC            |
| PXPTPU05FIM03ACL010PUR | 03    | A    | Overmold Cable | 1m          | PUR            |
| PXPPVC05FIM03ACL020PVC | 03    | A    | Overmold Cable | 2m          | PVC            |
| PXPTPU05FIM03ACL020PUR | 03    | A    | Overmold Cable | 2m          | PUR            |
| PXPPVC05FIM03ACL030PVC | 03    | A    | Overmold Cable | 3m          | PVC            |
| PXPTPU05FIM03ACL030PUR | 03    | A    | Overmold Cable | 3m          | PUR            |
| PXPPVC05FIM03ACL050PVC | 03    | A    | Overmold Cable | 5m          | PVC            |
| PXPTPU05FIM03ACL050PUR | 03    | A    | Overmold Cable | 5m          | PUR            |
| PXPPVC05FIM03ACL100PVC | 03    | A    | Overmold Cable | 10m         | PVC            |
| PXPTPU05FIM03ACL100PUR | 03    | A    | Overmold Cable | 10m         | PUR            |
| PXPPVC05FIM03ACL150PVC | 03    | A    | Overmold Cable | 15m         | PVC            |
| PXPTPU05FIM03ACL150PUR | 03    | A    | Overmold Cable | 15m         | PUR            |
| PXPPVC05FIM04ACL010PVC | 04    | A    | Overmold Cable | 1m          | PVC            |
| PXPTPU05FIM04ACL010PUR | 04    | A    | Overmold Cable | 1m          | PUR            |
| PXPPVC05FIM04ACL020PVC | 04    | A    | Overmold Cable | 2m          | PVC            |
| PXPTPU05FIM04ACL020PUR | 04    | A    | Overmold Cable | 2m          | PUR            |
| PXPPVC05FIM04ACL030PVC | 04    | A    | Overmold Cable | 3m          | PVC            |
| PXPTPU05FIM04ACL030PUR | 04    | A    | Overmold Cable | 3m          | PUR            |
| PXPPVC05FIM04ACL050PVC | 04    | A    | Overmold Cable | 5m          | PVC            |
| PXPTPU05FIM04ACL050PUR | 04    | A    | Overmold Cable | 5m          | PUR            |
| PXPPVC05FIM04ACL100PVC | 04    | A    | Overmold Cable | 10m         | PVC            |
| PXPTPU05FIM04ACL100PUR | 04    | A    | Overmold Cable | 10m         | PUR            |
| PXPPVC05FIM04ACL150PVC | 04    | A    | Overmold Cable | 15m         | PVC            |
| PXPTPU05FIM04ACL150PUR | 04    | A    | Overmold Cable | 15m         | PUR            |

## Electrical

|                          |               |     |
|--------------------------|---------------|-----|
| No. Poles:               | 3             | 4   |
| Current Rating:          | 1A            | 1A  |
| Voltage Rating (ac/dc) : | 60V           | 60V |
| Contact Resistance:      | <10mΩ         |     |
| Insulation Resistance:   | >100MΩ        |     |
| AC Breakdown Voltage:    |               |     |
| 3 Pole                   | 1.5KV         |     |
| 4 Pole                   | 1.5KV         |     |
| Operating Temp Range:    | -25°C to 80°C |     |

## Mechanical:

|                              |                           |
|------------------------------|---------------------------|
| Locking Mechanism:           | Screw coupling            |
| Sealing:                     | IP67                      |
| Terminations:                |                           |
| 3 Pole                       | Single wire / PCB / Cable |
| 4 Pole                       | Single wire / PCB / Cable |
| Mechanical Operation:        | 500 mating cycles         |
| Diameter over coupling ring: | 6.5mm                     |

## Materials:

|                    |                               |
|--------------------|-------------------------------|
| Body:              | Nickel Plated Brass           |
| Coupling Nut:      | Nickel Plated Brass           |
| Colour:            | Grey                          |
| Pin Contacts:      | Brass, Gold plating           |
| Socket Contacts:   | Phosphor Bronze, Gold plating |
| O Rings & Gaskets: | Viton                         |
| RoHS:              | Compliant                     |

## Panel Mount:

## Cable Connectors:

|                               |
|-------------------------------|
| TPU / PVC                     |
| Nickel Plated Brass           |
| Black                         |
| Brass, Gold plating           |
| Phosphor Bronze, Gold plating |
| Viton                         |
| Compliant                     |

| MX     | XXX                                              | XX          | XX                                                                                                 | X           | XXX          | X    | XX                             |
|--------|--------------------------------------------------|-------------|----------------------------------------------------------------------------------------------------|-------------|--------------|------|--------------------------------|
| Series | Material                                         | Series Size | Body Style                                                                                         | Orientation | NO. Contacts | Code | Termination                    |
| PXM    | BNI = Brass Nickel                               | 05          | FB = Flex Body                                                                                     | M           | 03           | A    | PC = PCB                       |
| PXP    | TPU = overmold for PUR<br>PVC = overmold for PVC |             | FI = Flex Inline Body<br>FP = Front Panel Mounting<br>RP = Rear Panel Mounting<br>RA = Right Angle | F           | 04           |      | FL = Flying Lead<br>CL = Cable |

| XXX         | XXX            |
|-------------|----------------|
| Lead Length | Cable Material |
| 001         | PUR            |
| 002         | PVC            |
| 003         |                |
| 010         |                |
| 030         |                |
| 050         |                |
| 100         |                |
| 150         |                |



Bulgin's **M8 circular connectors** and overmolded cables are designed to fulfil the ever growing demand for **sensor**, **actuator** and **data connections** in process control, industrial machinery and factory automation applications.



These compact sensor and automation connectors with screw lock coupling are mechanically and chemically robust, easy to install, minimise downtime and help to increase production efficiency. Rated to the IP67 standard, Bulgin's M8 Series ensure safe, secure and reliable protection from liquids, dust, moisture and dirt whilst also providing great resistance against vibrations to ensure that connections are not disrupted.

## Key features:

- ⬢ Straight & right angled configurations
- ⬢ 3, 4 or 5 contacts
- ⬢ Metal & plastic shell options
- ⬢ A & B coded
- ⬢ Environmental protection class IP67
- ⬢ Field installable connectors, panel mounts & overmolded cable options
- ⬢ PVC or PUR jacketed cable variants with many lengths from 1m – 15m

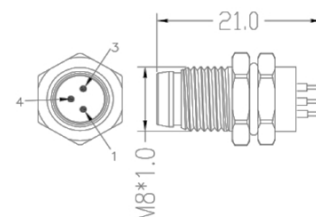


M8 Rear Panel Mounting Male



PXMBNI08RPM

- Available in 3, 4 and 5 poles
- PCB or flying lead termination
- Rear panel mounting M8
- Mates with Flex Body connectors



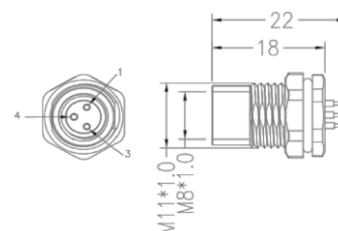
| Part Number         | Poles | Code | Termination  | Lead Length |
|---------------------|-------|------|--------------|-------------|
| PXMBNI08RPM03APC    | 03    | A    | PCB Terminal | -           |
| PXMBNI08RPM04APC    | 04    | A    | PCB Terminal | -           |
| PXMBNI08RPM05BPC    | 05    | B    | PCB Terminal | -           |
| PXMBNI08RPM03AFL001 | 03    | A    | Flying Lead  | 100mm       |
| PXMBNI08RPM03AFL002 | 03    | A    | Flying Lead  | 200mm       |
| PXMBNI08RPM03AFL003 | 03    | A    | Flying Lead  | 300mm       |
| PXMBNI08RPM04AFL001 | 04    | A    | Flying Lead  | 100mm       |
| PXMBNI08RPM04AFL002 | 04    | A    | Flying Lead  | 200mm       |
| PXMBNI08RPM04AFL003 | 04    | A    | Flying Lead  | 300mm       |
| PXMBNI08RPM05BFL001 | 05    | B    | Flying Lead  | 100mm       |
| PXMBNI08RPM05BFL002 | 05    | B    | Flying Lead  | 200mm       |
| PXMBNI08RPM05BFL003 | 05    | B    | Flying Lead  | 300mm       |

M8 Rear Panel Mounting Female



PXMBNI08RPF

- Available in 3, 4 and 5 poles
- PCB or flying lead termination
- Rear panel mounting M11 nut
- Mates with Flex Inline Body connectors



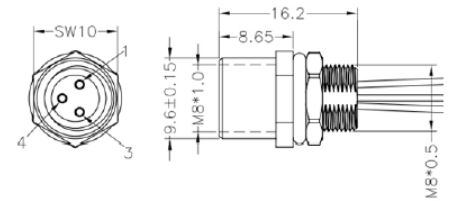
| Part Number         | Poles | Code | Termination  | Lead Length |
|---------------------|-------|------|--------------|-------------|
| PXMBNI08RPF03APC    | 03    | A    | PCB Terminal | -           |
| PXMBNI08RPF04APC    | 04    | A    | PCB Terminal | -           |
| PXMBNI08RPF05BPC    | 05    | B    | PCB Terminal | -           |
| PXMBNI08RPF03AFL001 | 03    | A    | Flying Lead  | 100mm       |
| PXMBNI08RPF03AFL002 | 03    | A    | Flying Lead  | 200mm       |
| PXMBNI08RPF03AFL003 | 03    | A    | Flying Lead  | 300mm       |
| PXMBNI08RPF04AFL001 | 04    | A    | Flying Lead  | 100mm       |
| PXMBNI08RPF04AFL002 | 04    | A    | Flying Lead  | 200mm       |
| PXMBNI08RPF04AFL003 | 04    | A    | Flying Lead  | 300mm       |
| PXMBNI08RPF05BFL001 | 05    | B    | Flying Lead  | 100mm       |
| PXMBNI08RPF05BFL002 | 05    | B    | Flying Lead  | 200mm       |
| PXMBNI08RPF05BFL003 | 05    | B    | Flying Lead  | 300mm       |

M8 Front Panel Mounting Female



PXMBNI08FPF

- ⬡ Available in 3, 4 and 5 poles
- ⬡ Flying lead termination
- ⬡ Front panel mounting M8
- ⬡ Mates with Flex Inline Body connectors



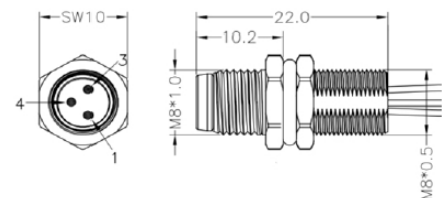
| Part Number         | Poles | Code | Termination | Lead Length |
|---------------------|-------|------|-------------|-------------|
| PXMBNI08FPF03AFL001 | 03    | A    | Flying Lead | 100mm       |
| PXMBNI08FPF03AFL002 | 03    | A    | Flying Lead | 200mm       |
| PXMBNI08FPF03AFL003 | 03    | B    | Flying Lead | 300mm       |
| PXMBNI08FPF04AFL001 | 04    | A    | Flying Lead | 100mm       |
| PXMBNI08FPF04AFL002 | 04    | A    | Flying Lead | 200mm       |
| PXMBNI08FPF04AFL003 | 04    | A    | Flying Lead | 300mm       |
| PXMBNI08FPF05BFL001 | 05    | B    | Flying Lead | 100mm       |
| PXMBNI08FPF05BFL002 | 05    | B    | Flying Lead | 200mm       |
| PXMBNI08FPF05BFL003 | 05    | B    | Flying Lead | 300mm       |

M8 Front Panel Mounting Male



PXMBNI08FPM

- ⬡ Available in 3, 4 and 5 poles
- ⬡ Flying lead termination
- ⬡ Front panel mounting M8
- ⬡ Mates with Flex Body connectors



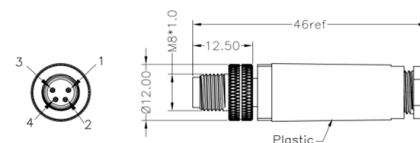
| Part Number         | Poles | Code | Termination | Lead Length |
|---------------------|-------|------|-------------|-------------|
| PXMBNI08FPM03AFL001 | 03    | A    | Flying Lead | 100mm       |
| PXMBNI08FPM03AFL002 | 03    | A    | Flying Lead | 200mm       |
| PXMBNI08FPM03AFL003 | 03    | A    | Flying Lead | 300mm       |
| PXMBNI08FPM04AFL001 | 04    | A    | Flying Lead | 100mm       |
| PXMBNI08FPM04AFL002 | 04    | A    | Flying Lead | 200mm       |
| PXMBNI08FPM04AFL003 | 04    | A    | Flying Lead | 300mm       |
| PXMBNI08FPM05BFL001 | 05    | B    | Flying Lead | 100mm       |
| PXMBNI08FPM05BFL002 | 05    | B    | Flying Lead | 200mm       |
| PXMBNI08FPM05BFL003 | 05    | B    | Flying Lead | 300mm       |

M8 Flex Inline Body Male



PXPPAM08FIM

- Available in 3 and 4 poles
- Screw termination
- Plastic Flex Inline Body
- Mates with Flex Body and panel mount connectors



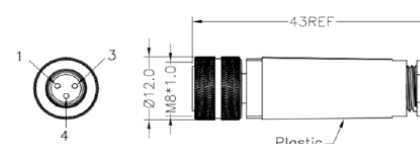
| Part Number      | Poles | Code | Termination    |
|------------------|-------|------|----------------|
| PXPPAM08FIM03AST | 03    | A    | Screw Terminal |
| PXPPAM08FIM04AST | 04    | A    | Screw Terminal |

M8 Flex Body Female



PXPPAM08FBF

- Available in 3 and 4 poles
- Screw termination
- Plastic Flex Body
- Mates with Flex Inline Body and panel mount connectors



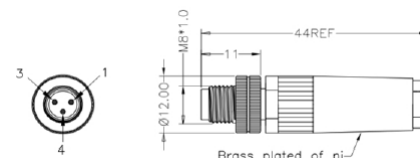
| Part Number      | Poles | Code | Termination    |
|------------------|-------|------|----------------|
| PXPPAM08FBF03AST | 03    | A    | Screw Terminal |
| PXPPAM08FBF04AST | 04    | A    | Screw Terminal |

Brass - Nickel Plating M8 Flex Inline Body Male



PXMBNI08FIM

- Available in 3, 4 and 5 poles
- Solder termination
- Metal Flex Inline Body
- Mates with Flex Body and panel mount connectors



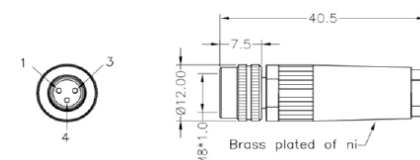
| Part Number      | Poles | Code | Termination     |
|------------------|-------|------|-----------------|
| PXMBNI08FIM03ASC | 03    | A    | Solder Terminal |
| PXMBNI08FIM04ASC | 04    | A    | Solder Terminal |
| PXMBNI08FIM05BSC | 05    | B    | Solder Terminal |

Brass - Nickel Plating M8 Flex Body Female



PXMBNI08FBF

- Available in 3, 4 and 5 poles
- Solder termination
- Metal Flex Body
- Mates with Flex Inline Body and panel mount connectors



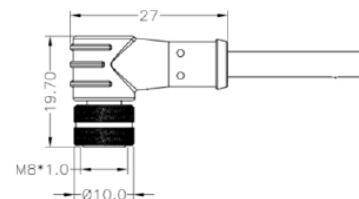
| Part Number      | Poles | Code | Termination     |
|------------------|-------|------|-----------------|
| PXMBNI08FBF03ASC | 03    | A    | Solder Terminal |
| PXMBNI08FBF04ASC | 04    | A    | Solder Terminal |
| PXMBNI08FBF05BSC | 05    | B    | Solder Terminal |

M8 Right Angled Female



PXPTPU08RAF  
PXPPVC08RAF

- ⬡ Available in 3, 4 and 5 poles
- ⬡ 1,2,3,5,10 & 15M cable options
- ⬡ Overmold Flex Body
- ⬡ Mates with Flex Inline Body & panel mount connectors



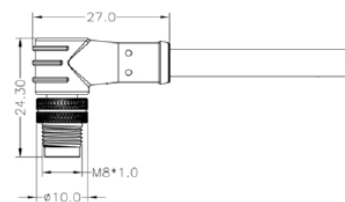
| Part Number            | Poles | Code | Termination    | Lead Length | Cable Material |
|------------------------|-------|------|----------------|-------------|----------------|
| PXPPVC08RAF03ACL010PVC | 03    | A    | Overmold Cable | 1m          | PVC            |
| PXPTPU08RAF03ACL010PUR | 03    | A    | Overmold Cable | 1m          | PUR            |
| PXPPVC08RAF03ACL020PVC | 03    | A    | Overmold Cable | 2m          | PVC            |
| PXPTPU08RAF03ACL020PUR | 03    | A    | Overmold Cable | 2m          | PUR            |
| PXPPVC08RAF03ACL030PVC | 03    | A    | Overmold Cable | 3m          | PVC            |
| PXPTPU08RAF03ACL030PUR | 03    | A    | Overmold Cable | 3m          | PUR            |
| PXPPVC08RAF03ACL050PVC | 03    | A    | Overmold Cable | 5m          | PVC            |
| PXPTPU08RAF03ACL050PUR | 03    | A    | Overmold Cable | 5m          | PUR            |
| PXPPVC08RAF03ACL100PVC | 03    | A    | Overmold Cable | 10m         | PVC            |
| PXPTPU08RAF03ACL100PUR | 03    | A    | Overmold Cable | 10m         | PUR            |
| PXPPVC08RAF03ACL150PVC | 03    | A    | Overmold Cable | 15m         | PVC            |
| PXPTPU08RAF03ACL150PUR | 03    | A    | Overmold Cable | 15m         | PUR            |
| PXPPVC08RAF04ACL010PVC | 04    | A    | Overmold Cable | 1m          | PVC            |
| PXPTPU08RAF04ACL010PUR | 04    | A    | Overmold Cable | 1m          | PUR            |
| PXPPVC08RAF04ACL020PVC | 04    | A    | Overmold Cable | 2m          | PVC            |
| PXPTPU08RAF04ACL020PUR | 04    | A    | Overmold Cable | 2m          | PUR            |
| PXPPVC08RAF04ACL030PVC | 04    | A    | Overmold Cable | 3m          | PVC            |
| PXPTPU08RAF04ACL030PUR | 04    | A    | Overmold Cable | 3m          | PUR            |
| PXPPVC08RAF04ACL050PVC | 04    | A    | Overmold Cable | 5m          | PVC            |
| PXPTPU08RAF04ACL050PUR | 04    | A    | Overmold Cable | 5m          | PUR            |
| PXPPVC08RAF04ACL100PVC | 04    | A    | Overmold Cable | 10m         | PVC            |
| PXPTPU08RAF04ACL100PUR | 04    | A    | Overmold Cable | 10m         | PUR            |
| PXPPVC08RAF04ACL150PVC | 04    | A    | Overmold Cable | 15m         | PVC            |
| PXPTPU08RAF04ACL150PUR | 04    | A    | Overmold Cable | 15m         | PUR            |
| PXPPVC08RAF05BCL010PVC | 05    | B    | Overmold Cable | 1m          | PVC            |
| PXPTPU08RAF05BCL010PUR | 05    | B    | Overmold Cable | 1m          | PUR            |
| PXPPVC08RAF05BCL020PVC | 05    | B    | Overmold Cable | 2m          | PVC            |
| PXPTPU08RAF05BCL020PUR | 05    | B    | Overmold Cable | 2m          | PUR            |
| PXPPVC08RAF05BCL030PVC | 05    | B    | Overmold Cable | 3m          | PVC            |
| PXPTPU08RAF05BCL030PUR | 05    | B    | Overmold Cable | 3m          | PUR            |
| PXPPVC08RAF05BCL050PVC | 05    | B    | Overmold Cable | 5m          | PVC            |
| PXPTPU08RAF05BCL050PUR | 05    | B    | Overmold Cable | 5m          | PUR            |
| PXPPVC08RAF05BCL100PVC | 05    | B    | Overmold Cable | 10m         | PVC            |
| PXPTPU08RAF05BCL100PUR | 05    | B    | Overmold Cable | 10m         | PUR            |
| PXPPVC08RAF05BCL150PVC | 05    | B    | Overmold Cable | 15m         | PVC            |
| PXPTPU08RAF05BCL150PUR | 05    | B    | Overmold Cable | 15m         | PUR            |

M8 Right Angled Male



PXPTPU08RAM  
PXPPVC08RAM

- Available in 3, 4 and 5 poles
- 1,2,3,5,10 & 15M cable options
- Overmold Flex Inline Body
- Mates with Flex Body & panel mount connectors



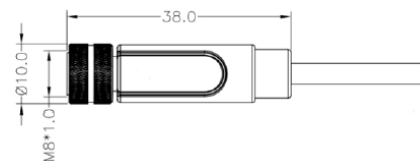
| Part Number            | Poles | Code | Termination    | Lead Length | Cable Material |
|------------------------|-------|------|----------------|-------------|----------------|
| PXPPVC08RAM03ACL010PVC | 03    | A    | Overmold Cable | 1m          | PVC            |
| PXPTPU08RAM03ACL010PUR | 03    | A    | Overmold Cable | 1m          | PUR            |
| PXPPVC08RAM03ACL020PVC | 03    | A    | Overmold Cable | 2m          | PVC            |
| PXPTPU08RAM03ACL020PUR | 03    | A    | Overmold Cable | 2m          | PUR            |
| PXPPVC08RAM03ACL030PVC | 03    | A    | Overmold Cable | 3m          | PVC            |
| PXPTPU08RAM03ACL030PUR | 03    | A    | Overmold Cable | 3m          | PUR            |
| PXPPVC08RAM03ACL050PVC | 03    | A    | Overmold Cable | 5m          | PVC            |
| PXPTPU08RAM03ACL050PUR | 03    | A    | Overmold Cable | 5m          | PUR            |
| PXPPVC08RAM03ACL100PVC | 03    | A    | Overmold Cable | 10m         | PVC            |
| PXPTPU08RAM03ACL100PUR | 03    | A    | Overmold Cable | 10m         | PUR            |
| PXPPVC08RAM03ACL150PVC | 03    | A    | Overmold Cable | 15m         | PVC            |
| PXPTPU08RAM03ACL150PUR | 03    | A    | Overmold Cable | 15m         | PUR            |
| PXPPVC08RAM04ACL010PVC | 04    | A    | Overmold Cable | 1m          | PVC            |
| PXPTPU08RAM04ACL010PUR | 04    | A    | Overmold Cable | 1m          | PUR            |
| PXPPVC08RAM04ACL020PVC | 04    | A    | Overmold Cable | 2m          | PVC            |
| PXPTPU08RAM04ACL020PUR | 04    | A    | Overmold Cable | 2m          | PUR            |
| PXPPVC08RAM04ACL030PVC | 04    | A    | Overmold Cable | 3m          | PVC            |
| PXPTPU08RAM04ACL030PUR | 04    | A    | Overmold Cable | 3m          | PUR            |
| PXPPVC08RAM04ACL050PVC | 04    | A    | Overmold Cable | 5m          | PVC            |
| PXPTPU08RAM04ACL050PUR | 04    | A    | Overmold Cable | 5m          | PUR            |
| PXPPVC08RAM04ACL100PVC | 04    | A    | Overmold Cable | 10m         | PVC            |
| PXPTPU08RAM04ACL100PUR | 04    | A    | Overmold Cable | 10m         | PUR            |
| PXPPVC08RAM04ACL150PVC | 04    | A    | Overmold Cable | 15m         | PVC            |
| PXPTPU08RAM04ACL150PUR | 04    | A    | Overmold Cable | 15m         | PUR            |
| PXPPVC08RAM05BCL010PVC | 05    | B    | Overmold Cable | 1m          | PVC            |
| PXPTPU08RAM05BCL010PUR | 05    | B    | Overmold Cable | 1m          | PUR            |
| PXPPVC08RAM05BCL020PVC | 05    | B    | Overmold Cable | 2m          | PVC            |
| PXPTPU08RAM05BCL020PUR | 05    | B    | Overmold Cable | 2m          | PUR            |
| PXPPVC08RAM05BCL030PVC | 05    | B    | Overmold Cable | 3m          | PVC            |
| PXPTPU08RAM05BCL030PUR | 05    | B    | Overmold Cable | 3m          | PUR            |
| PXPPVC08RAM05BCL050PVC | 05    | B    | Overmold Cable | 5m          | PVC            |
| PXPTPU08RAM05BCL050PUR | 05    | B    | Overmold Cable | 5m          | PUR            |
| PXPPVC08RAM05BCL100PVC | 05    | B    | Overmold Cable | 10m         | PVC            |
| PXPTPU08RAM05BCL100PUR | 05    | B    | Overmold Cable | 10m         | PUR            |
| PXPPVC08RAM05BCL150PVC | 05    | B    | Overmold Cable | 15m         | PVC            |
| PXPTPU08RAM05BCL150PUR | 05    | B    | Overmold Cable | 15m         | PUR            |

M8 Flex Body Female



PXPTPU08FBF  
PXPPVC08FBF

- ⬡ Available in 3, 4 and 5 poles
- ⬡ 1,2,3,5,10 & 15M cable options
- ⬡ Overmold Flex Body
- ⬡ Mates with Flex Inline Body & panel mount connectors



| Part Number            | Poles | Code | Termination    | Lead Length | Cable Material |
|------------------------|-------|------|----------------|-------------|----------------|
| PXPPVC08FBF03ACL010PVC | 03    | A    | Overmold Cable | 1m          | PVC            |
| PXPTPU08FBF03ACL010PUR | 03    | A    | Overmold Cable | 1m          | PUR            |
| PXPPVC08FBF03ACL020PVC | 03    | A    | Overmold Cable | 2m          | PVC            |
| PXPTPU08FBF03ACL020PUR | 03    | A    | Overmold Cable | 2m          | PUR            |
| PXPPVC08FBF03ACL030PVC | 03    | A    | Overmold Cable | 3m          | PVC            |
| PXPTPU08FBF03ACL030PUR | 03    | A    | Overmold Cable | 3m          | PUR            |
| PXPPVC08FBF03ACL050PVC | 03    | A    | Overmold Cable | 5m          | PVC            |
| PXPTPU08FBF03ACL050PUR | 03    | A    | Overmold Cable | 5m          | PUR            |
| PXPPVC08FBF03ACL100PVC | 03    | A    | Overmold Cable | 10m         | PVC            |
| PXPTPU08FBF03ACL100PUR | 03    | A    | Overmold Cable | 10m         | PUR            |
| PXPPVC08FBF03ACL150PVC | 03    | A    | Overmold Cable | 15m         | PVC            |
| PXPTPU08FBF03ACL150PUR | 03    | A    | Overmold Cable | 15m         | PUR            |
| PXPPVC08FBF04ACL010PVC | 04    | A    | Overmold Cable | 1m          | PVC            |
| PXPTPU08FBF04ACL010PUR | 04    | A    | Overmold Cable | 1m          | PUR            |
| PXPPVC08FBF04ACL020PVC | 04    | A    | Overmold Cable | 2m          | PVC            |
| PXPTPU08FBF04ACL020PUR | 04    | A    | Overmold Cable | 2m          | PUR            |
| PXPPVC08FBF04ACL030PVC | 04    | A    | Overmold Cable | 3m          | PVC            |
| PXPTPU08FBF04ACL030PUR | 04    | A    | Overmold Cable | 3m          | PUR            |
| PXPPVC08FBF04ACL050PVC | 04    | A    | Overmold Cable | 5m          | PVC            |
| PXPTPU08FBF04ACL050PUR | 04    | A    | Overmold Cable | 5m          | PUR            |
| PXPPVC08FBF04ACL100PVC | 04    | A    | Overmold Cable | 10m         | PVC            |
| PXPTPU08FBF04ACL100PUR | 04    | A    | Overmold Cable | 10m         | PUR            |
| PXPPVC08FBF04ACL150PVC | 04    | A    | Overmold Cable | 15m         | PVC            |
| PXPTPU08FBF04ACL150PUR | 04    | A    | Overmold Cable | 15m         | PUR            |
| PXPPVC08FBF05BCL010PVC | 05    | B    | Overmold Cable | 1m          | PVC            |
| PXPTPU08FBF05BCL010PUR | 05    | B    | Overmold Cable | 1m          | PUR            |
| PXPPVC08FBF05BCL020PVC | 05    | B    | Overmold Cable | 2m          | PVC            |
| PXPTPU08FBF05BCL020PUR | 05    | B    | Overmold Cable | 2m          | PUR            |
| PXPPVC08FBF05BCL030PVC | 05    | B    | Overmold Cable | 3m          | PVC            |
| PXPTPU08FBF05BCL030PUR | 05    | B    | Overmold Cable | 3m          | PUR            |
| PXPPVC08FBF05BCL050PVC | 05    | B    | Overmold Cable | 5m          | PVC            |
| PXPTPU08FBF05BCL050PUR | 05    | B    | Overmold Cable | 5m          | PUR            |
| PXPPVC08FBF05BCL100PVC | 05    | B    | Overmold Cable | 10m         | PVC            |
| PXPTPU08FBF05BCL100PUR | 05    | B    | Overmold Cable | 10m         | PUR            |
| PXPPVC08FBF05BCL150PVC | 05    | B    | Overmold Cable | 15m         | PVC            |
| PXPTPU08FBF05BCL150PUR | 05    | B    | Overmold Cable | 15m         | PUR            |

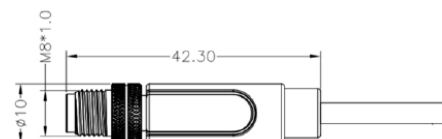


M8 Flex Inline Body Male



PXPTPU08FIM  
PXPPVC08FIM

- ⬡ Available in 3, 4 and 5 poles
- ⬡ 1,2,3,5,10 & 15M cable options
- ⬡ Overmold Flex Inline Body
- ⬡ Mates with Flex Body & panel mount connectors



| Part Number            | Poles | Code | Termination    | Lead Length | Cable Material |
|------------------------|-------|------|----------------|-------------|----------------|
| PXPPVC08FIM03ACL010PVC | 03    | A    | Overmold Cable | 1m          | PVC            |
| PXPTPU08FIM03ACL010PUR | 03    | A    | Overmold Cable | 1m          | PUR            |
| PXPPVC08FIM03ACL020PVC | 03    | A    | Overmold Cable | 2m          | PVC            |
| PXPTPU08FIM03ACL020PUR | 03    | A    | Overmold Cable | 2m          | PUR            |
| PXPPVC08FIM03ACL030PVC | 03    | A    | Overmold Cable | 3m          | PVC            |
| PXPTPU08FIM03ACL030PUR | 03    | A    | Overmold Cable | 3m          | PUR            |
| PXPPVC08FIM03ACL050PVC | 03    | A    | Overmold Cable | 5m          | PVC            |
| PXPTPU08FIM03ACL050PUR | 03    | A    | Overmold Cable | 5m          | PUR            |
| PXPPVC08FIM03ACL100PVC | 03    | A    | Overmold Cable | 10m         | PVC            |
| PXPTPU08FIM03ACL100PUR | 03    | A    | Overmold Cable | 10m         | PUR            |
| PXPPVC08FIM03ACL150PVC | 03    | A    | Overmold Cable | 15m         | PVC            |
| PXPTPU08FIM03ACL150PUR | 03    | A    | Overmold Cable | 15m         | PUR            |
| PXPPVC08FIM04ACL010PVC | 04    | A    | Overmold Cable | 1m          | PVC            |
| PXPTPU08FIM04ACL010PUR | 04    | A    | Overmold Cable | 1m          | PUR            |
| PXPPVC08FIM04ACL020PVC | 04    | A    | Overmold Cable | 2m          | PVC            |
| PXPTPU08FIM04ACL020PUR | 04    | A    | Overmold Cable | 2m          | PUR            |
| PXPPVC08FIM04ACL030PVC | 04    | A    | Overmold Cable | 3m          | PVC            |
| PXPTPU08FIM04ACL030PUR | 04    | A    | Overmold Cable | 3m          | PUR            |
| PXPPVC08FIM04ACL050PVC | 04    | A    | Overmold Cable | 5m          | PVC            |
| PXPTPU08FIM04ACL050PUR | 04    | A    | Overmold Cable | 5m          | PUR            |
| PXPPVC08FIM04ACL100PVC | 04    | A    | Overmold Cable | 10m         | PVC            |
| PXPTPU08FIM04ACL100PUR | 04    | A    | Overmold Cable | 10m         | PUR            |
| PXPPVC08FIM04ACL150PVC | 04    | A    | Overmold Cable | 15m         | PVC            |
| PXPTPU08FIM04ACL150PUR | 04    | A    | Overmold Cable | 15m         | PUR            |
| PXPPVC08FIM05BCL010PVC | 05    | B    | Overmold Cable | 1m          | PVC            |
| PXPTPU08FIM05BCL010PUR | 05    | B    | Overmold Cable | 1m          | PUR            |
| PXPPVC08FIM05BCL020PVC | 05    | B    | Overmold Cable | 2m          | PVC            |
| PXPTPU08FIM05BCL020PUR | 05    | B    | Overmold Cable | 2m          | PUR            |
| PXPPVC08FIM05BCL030PVC | 05    | B    | Overmold Cable | 3m          | PVC            |
| PXPTPU08FIM05BCL030PUR | 05    | B    | Overmold Cable | 3m          | PUR            |
| PXPPVC08FIM05BCL050PVC | 05    | B    | Overmold Cable | 5m          | PVC            |
| PXPTPU08FIM05BCL050PUR | 05    | B    | Overmold Cable | 5m          | PUR            |
| PXPPVC08FIM05BCL100PVC | 05    | B    | Overmold Cable | 10m         | PVC            |
| PXPTPU08FIM05BCL100PUR | 05    | B    | Overmold Cable | 10m         | PUR            |
| PXPPVC08FIM05BCL150PVC | 05    | B    | Overmold Cable | 15m         | PVC            |
| PXPTPU08FIM05BCL150PUR | 05    | B    | Overmold Cable | 15m         | PUR            |

## Electrical

|                          |               |     |      |
|--------------------------|---------------|-----|------|
| No. Poles:               | 3             | 4   | 5    |
| Current Rating:          | 3A            | 3A  | 1.5A |
| Voltage Rating (ac/dc) : | 60V           | 30V | 30V  |
| Contact Resistance:      | <10mΩ         |     |      |
| Insulation Resistance:   | >100MΩ        |     |      |
| AC Breakdown Voltage:    |               |     |      |
| 3 Pole                   | 1.5KV         |     |      |
| 4 Pole                   | 0.8KV         |     |      |
| 5 Pole                   | 0.8KV         |     |      |
| Operating Temp Range:    | -25°C to 80°C |     |      |

## Mechanical:

|                              |                                          |
|------------------------------|------------------------------------------|
| Locking Mechanism:           | Screw coupling                           |
| Sealing:                     | IP67                                     |
| Contact Accomodation:        |                                          |
| 3, 4 & 5 Pole                | 28AWG-22AWG                              |
| Cable Acceptance:            | 3.0 - 3.5 mm Dia                         |
| Terminations:                |                                          |
| 3 Pole                       | Single wire / PCB / Cable Screw / Solder |
| 4 Pole                       | Single wire / PCB / Cable Screw / Solder |
| 5 Pole                       | Single wire / PCB / Cable Screw / Solder |
| Mechanical Operation:        | 500 mating cycles                        |
| Diameter over coupling ring: | 12.5mm                                   |

## Materials:

## Panel Mount:

|                    |                               |
|--------------------|-------------------------------|
| Body:              | Nickel Plated Brass           |
| Coupling Nut:      | Nickel Plated Brass           |
| Colour:            | Grey                          |
| Pin Contacts:      | Brass, Gold plating           |
| Socket Contacts:   | Phosphor Bronze, Gold plating |
| O Rings & Gaskets: | Viton                         |
| RoHS:              | Compliant                     |

## Cable Connectors:

|                               |
|-------------------------------|
| TPU / PVC                     |
| Nickel Plated Brass           |
| Black                         |
| Brass, Gold plating           |
| Phosphor Bronze, Gold plating |
| Viton                         |
| Compliant                     |

## Flex & Inline Connectors:

|                               |
|-------------------------------|
| Nickel Plated Brass / PA66    |
| Nickel Plated Brass           |
| Black or Grey                 |
| Brass, Gold plating           |
| Phosphor Bronze, Gold plating |
| Viton                         |
| Compliant                     |

| MX     | XXX                                              | XX          | XX                        | X           | XX           | X    | XX                  |
|--------|--------------------------------------------------|-------------|---------------------------|-------------|--------------|------|---------------------|
| Series | Material                                         | Series Size | Body Style                | Orientation | NO. Contacts | Code | Termination         |
| PXM    | BNI = Brass Nickel<br>PAM = Polyamide            | 08          | FB = Flex Body            | M           | 03           | A    | ST = Screw Terminal |
| PXP    | TPU = overmold for PUR<br>PVC = overmold for PVC |             | FI = Flex Inline Body     | F           | 04           | B    | PC = PCB            |
|        |                                                  |             | FP = Front Panel Mounting |             | 05           |      | FL = Flying Lead    |
|        |                                                  |             | RP = Rear Panel Mounting  |             |              |      | CL = Cable          |
|        |                                                  |             | RA = Right Angle          |             |              |      | SC = Solder         |

| XXX         | XXX            |
|-------------|----------------|
| Lead Length | Cable Material |
| 001         | PUR            |
| 002         | PVC            |
| 003         |                |
| 010         |                |
| 020         |                |
| 030         |                |
| 050         |                |
| 100         |                |
| 150         |                |

With a high degree of mechanical and electrical stability, Bulgin's M12 connectors provide a **cost effective** and **flexible connectivity solution** for onsite installations, helping to **decrease downtime** in process control, manufacturing automation and industrial instrumentation applications.



## Key features:

- ⊗ Reliable industry standard screw locking mechanism
- ⊗ IP67 degree of protection
- ⊗ A, B and D Coded versions
- ⊗ Field installable, cable and panel mount options
- ⊗ Plastic and metal options variants
- ⊗ Straight and right angled forms
- ⊗ Overmolded PVC or PUR cable connectors
- ⊗ Shielded options
- ⊗ Pole variants from 3 – 12

M12 connectors are established as one of the most reliable and efficient connection standards for Industrial Machinery and Factory Automation applications. With a small footprint, extremely low failure rate and high performance capabilities, this range is ideal not only for sensor connections but also for a variety of fieldbus systems.

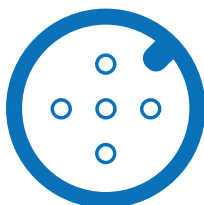
These M12 Series circular connectors are rugged, easy to use and extremely reliable solutions for sensor/actuator connectivity in industrial automation and control applications. With an IP67 rating, they are also extremely effective in harsh environments outside of industrial automation applications where compact and dependable connections with environmental protection are required.

Bulgin's field attachable M12 connectors feature a robust aluminium coupling nut, making them a lightweight and durable alternative to the more common nickel-plated M12 nut variants and an ideal plug and play solution for upgrading sensor systems with M12 connectivity.



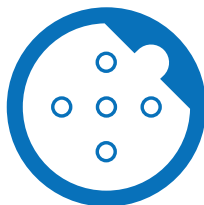
Bulgin's M12 Series connectors are available in a variety of industry standard keying/coding options to further minimize wiring errors and serve a large variety of customer needs.

## M12 Series coding options:



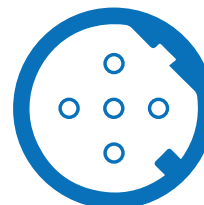
### A-Coding

Primarily for general sensor-actuator connections



### B-Coding

For fieldbus and signal connections (PROFIBUS & INTERBUS systems)



### D-Coding

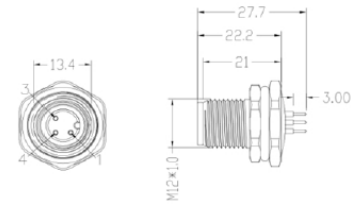
For industrial Ethernets and PROFINET

M12 Rear Panel Mounting Male



PXMBNI12RPM

- ⬢ 3, 4, 5, 8 and 12 poles
- ⬢ PCB termination
- ⬢ Different panel mounting options available
- ⬢ Mates with Flex Body connectors



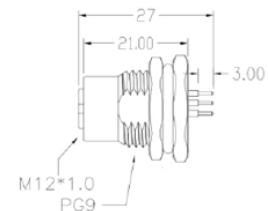
| Part Number         | Poles | Code | Termination  | Mounting Nut                    |
|---------------------|-------|------|--------------|---------------------------------|
| PXMBNI12RPM03APCPG9 | 03    | A    | PCB Terminal | PG9 Mounting / Gland Nut Thread |
| PXMBNI12RPM04APCPG9 | 04    | A    | PCB Terminal | PG9 Mounting / Gland Nut Thread |
| PXMBNI12RPM05APCPG9 | 05    | A    | PCB Terminal | PG9 Mounting / Gland Nut Thread |
| PXMBNI12RPM08APCPG9 | 08    | A    | PCB Terminal | PG9 Mounting / Gland Nut Thread |
| PXMBNI12RPM12APCPG9 | 12    | A    | PCB Terminal | PG9 Mounting / Gland Nut Thread |
| PXMBNI12RPM05BPCPG9 | 05    | B    | PCB Terminal | PG9 Mounting / Gland Nut Thread |
| PXMBNI12RPM04DPCPG9 | 04    | D    | PCB Terminal | PG9 Mounting / Gland Nut Thread |
| PXMBNI12RPM03APCM16 | 03    | A    | PCB Terminal | M16 Mounting / Gland Nut Thread |
| PXMBNI12RPM04APCM16 | 04    | A    | PCB Terminal | M16 Mounting / Gland Nut Thread |
| PXMBNI12RPM05APCM16 | 05    | A    | PCB Terminal | M16 Mounting / Gland Nut Thread |
| PXMBNI12RPM08APCM16 | 08    | A    | PCB Terminal | M16 Mounting / Gland Nut Thread |
| PXMBNI12RPM12APCM16 | 12    | A    | PCB Terminal | M16 Mounting / Gland Nut Thread |
| PXMBNI12RPM05BPCM16 | 05    | B    | PCB Terminal | M16 Mounting / Gland Nut Thread |
| PXMBNI12RPM04DPCM16 | 04    | D    | PCB Terminal | M16 Mounting / Gland Nut Thread |
| PXMBNI12RPM03APCM12 | 03    | A    | PCB Terminal | M12 Mounting / Gland Nut Thread |
| PXMBNI12RPM04APCM12 | 04    | A    | PCB Terminal | M12 Mounting / Gland Nut Thread |
| PXMBNI12RPM05APCM12 | 05    | A    | PCB Terminal | M12 Mounting / Gland Nut Thread |
| PXMBNI12RPM08APCM12 | 08    | A    | PCB Terminal | M12 Mounting / Gland Nut Thread |
| PXMBNI12RPM12APCM12 | 12    | A    | PCB Terminal | M12 Mounting / Gland Nut Thread |
| PXMBNI12RPM05BPCM12 | 05    | B    | PCB Terminal | M12 Mounting / Gland Nut Thread |
| PXMBNI12RPM04DPCM12 | 04    | D    | PCB Terminal | M12 Mounting / Gland Nut Thread |

M12 Rear Panel Mounting Female



PXMBNI12RPF

- ⬢ 3, 4, 5, 8 and 12 poles
- ⬢ PCB termination
- ⬢ Different panel mounting options available
- ⬢ Mates with Flex Inline Body connectors



| Part Number         | Poles | Code | Termination  | Mounting Nut                    |
|---------------------|-------|------|--------------|---------------------------------|
| PXMBNI12RPF03APCPG9 | 03    | A    | PCB Terminal | PG9 Mounting / Gland Nut Thread |
| PXMBNI12RPF04APCPG9 | 04    | A    | PCB Terminal | PG9 Mounting / Gland Nut Thread |
| PXMBNI12RPF05APCPG9 | 05    | A    | PCB Terminal | PG9 Mounting / Gland Nut Thread |
| PXMBNI12RPF08APCPG9 | 08    | A    | PCB Terminal | PG9 Mounting / Gland Nut Thread |
| PXMBNI12RPF12APCPG9 | 12    | A    | PCB Terminal | PG9 Mounting / Gland Nut Thread |
| PXMBNI12RPF05BPCPG9 | 05    | B    | PCB Terminal | PG9 Mounting / Gland Nut Thread |
| PXMBNI12RPF04DPCPG9 | 04    | D    | PCB Terminal | PG9 Mounting / Gland Nut Thread |
| PXMBNI12RPF03APCM16 | 03    | A    | PCB Terminal | M16 Mounting / Gland Nut Thread |
| PXMBNI12RPF04APCM16 | 04    | A    | PCB Terminal | M16 Mounting / Gland Nut Thread |
| PXMBNI12RPF05APCM16 | 05    | A    | PCB Terminal | M16 Mounting / Gland Nut Thread |
| PXMBNI12RPF08APCM16 | 08    | A    | PCB Terminal | M16 Mounting / Gland Nut Thread |
| PXMBNI12RPF12APCM16 | 12    | A    | PCB Terminal | M16 Mounting / Gland Nut Thread |
| PXMBNI12RPF05BPCM16 | 05    | B    | PCB Terminal | M16 Mounting / Gland Nut Thread |
| PXMBNI12RPF04DPCM16 | 04    | D    | PCB Terminal | M16 Mounting / Gland Nut Thread |

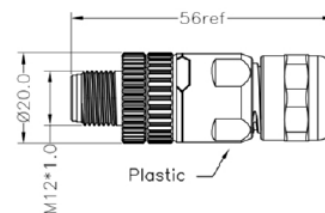


M12 Flex Inline Body Male



PXPPAM12FIM

- 3, 4, 5 and 8 poles
- Screw termination
- Plastic Flex Inline Body
- Mates with Flex body and panel mount connectors



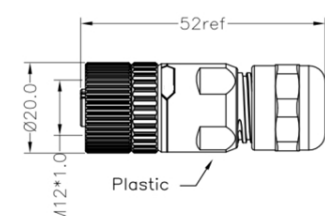
| Part Number         | Poles | Code | Termination    |
|---------------------|-------|------|----------------|
| PXPPAM12FIM03ASTPG9 | 03    | A    | Screw Terminal |
| PXPPAM12FIM04ASTPG9 | 04    | A    | Screw Terminal |
| PXPPAM12FIM05ASTPG9 | 05    | A    | Screw Terminal |
| PXPPAM12FIM08ASTPG9 | 08    | A    | Screw Terminal |

M12 Flex Body Female



PXPPAM12FBF

- 3, 4, 5 and 8 poles
- Screw termination
- Plastic Flex Body
- Mates with Flex Inline Body and panel mount connectors



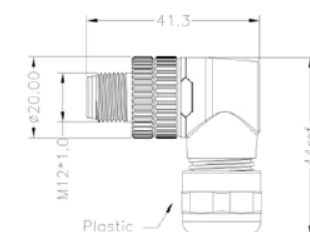
| Part Number         | Poles | Code | Termination    |
|---------------------|-------|------|----------------|
| PXPPAM12FBF03ASTPG9 | 03    | A    | Screw Terminal |
| PXPPAM12FBF04ASTPG9 | 04    | A    | Screw Terminal |
| PXPPAM12FBF05ASTPG9 | 05    | A    | Screw Terminal |
| PXPPAM12FBF08ASTPG9 | 08    | A    | Screw Terminal |

M12 Right Angled Male



PXPPAM12RAM

- 3, 4, 5 and 8 poles
- Screw termination
- Plastic Flex Inline Body
- Mates with Flex Body and panel mount connectors



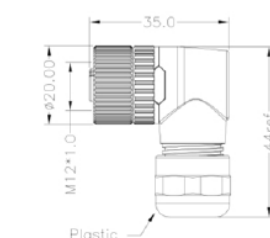
| Part Number         | Poles | Code | Termination    |
|---------------------|-------|------|----------------|
| PXPPAM12RAM03ASTPG9 | 03    | A    | Screw Terminal |
| PXPPAM12RAM04ASTPG9 | 04    | A    | Screw Terminal |
| PXPPAM12RAM05ASTPG9 | 05    | A    | Screw Terminal |
| PXPPAM12RAM08ASTPG9 | 08    | A    | Screw Terminal |

M12 Right Angled Female



PXPPAM12RAF

- 3, 4, 5 and 8 poles
- Screw termination
- Plastic Flex Body
- Mates with Flex Inline Body and panel mount connectors



| Part Number         | Poles | Code | Termination    |
|---------------------|-------|------|----------------|
| PXPPAM12RAF03ASTPG9 | 03    | A    | Screw Terminal |
| PXPPAM12RAF04ASTPG9 | 04    | A    | Screw Terminal |
| PXPPAM12RAF05ASTPG9 | 05    | A    | Screw Terminal |
| PXPPAM12RAF08ASTPG9 | 08    | A    | Screw Terminal |

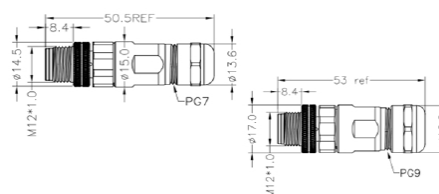


Nickel Plating M12 Flex Inline Body Male



PXMBNI12FIM

- 3, 4, 5, 8 and 12 poles
- Solder termination
- Metal Flex Inline Body
- Mates with Flex body and panel mount connectors



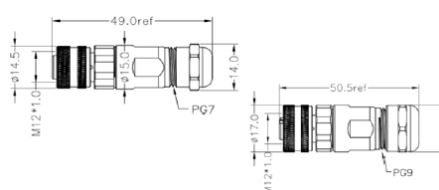
| Part Number         | Poles | Code | Termination     | Mounting Nut                    |
|---------------------|-------|------|-----------------|---------------------------------|
| PXMBNI12FIM03ASCPG7 | 03    | A    | Solder Terminal | PG7 Mounting / Gland Nut Thread |
| PXMBNI12FIM04ASCPG7 | 04    | A    | Solder Terminal | PG7 Mounting / Gland Nut Thread |
| PXMBNI12FIM05ASCPG7 | 05    | A    | Solder Terminal | PG7 Mounting / Gland Nut Thread |
| PXMBNI12FIM08ASCPG7 | 08    | A    | Solder Terminal | PG7 Mounting / Gland Nut Thread |
| PXMBNI12FIM12ASCPG7 | 12    | A    | Solder Terminal | PG7 Mounting / Gland Nut Thread |
| PXMBNI12FIM05BSCPG7 | 05    | B    | Solder Terminal | PG7 Mounting / Gland Nut Thread |
| PXMBNI12FIM04DSCPG7 | 04    | D    | Solder Terminal | PG7 Mounting / Gland Nut Thread |
| PXMBNI12FIM03ASCPG9 | 03    | A    | Solder Terminal | PG9 Mounting / Gland Nut Thread |
| PXMBNI12FIM04ASCPG9 | 04    | A    | Solder Terminal | PG9 Mounting / Gland Nut Thread |
| PXMBNI12FIM05ASCPG9 | 05    | A    | Solder Terminal | PG9 Mounting / Gland Nut Thread |
| PXMBNI12FIM08ASCPG9 | 08    | A    | Solder Terminal | PG9 Mounting / Gland Nut Thread |
| PXMBNI12FIM12ASCPG9 | 12    | A    | Solder Terminal | PG9 Mounting / Gland Nut Thread |
| PXMBNI12FIM05BSCPG9 | 05    | B    | Solder Terminal | PG9 Mounting / Gland Nut Thread |
| PXMBNI12FIM04DSCPG9 | 04    | D    | Solder Terminal | PG9 Mounting / Gland Nut Thread |

Nickel Plating M12 Flex Body Female



PXMBNI12FBF

- 3, 4, 5, 8 and 12 poles
- Solder termination
- Metal Flex Body
- Mates with Flex Inline Body and panel mount connectors



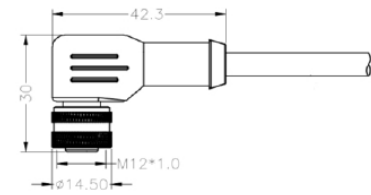
| Part Number         | Poles | Code | Termination     | Mounting Nut                    |
|---------------------|-------|------|-----------------|---------------------------------|
| PXMBNI12FBF03ASCPG7 | 03    | A    | Solder Terminal | PG7 Mounting / Gland Nut Thread |
| PXMBNI12FBF04ASCPG7 | 04    | A    | Solder Terminal | PG7 Mounting / Gland Nut Thread |
| PXMBNI12FBF05ASCPG7 | 05    | A    | Solder Terminal | PG7 Mounting / Gland Nut Thread |
| PXMBNI12FBF08ASCPG7 | 08    | A    | Solder Terminal | PG7 Mounting / Gland Nut Thread |
| PXMBNI12FBF12ASCPG7 | 12    | A    | Solder Terminal | PG7 Mounting / Gland Nut Thread |
| PXMBNI12FBF05BSCPG7 | 05    | B    | Solder Terminal | PG7 Mounting / Gland Nut Thread |
| PXMBNI12FBF04DSCPG7 | 04    | D    | Solder Terminal | PG7 Mounting / Gland Nut Thread |
| PXMBNI12FBF03ASCPG9 | 03    | A    | Solder Terminal | PG9 Mounting / Gland Nut Thread |
| PXMBNI12FBF04ASCPG9 | 04    | A    | Solder Terminal | PG9 Mounting / Gland Nut Thread |
| PXMBNI12FBF05ASCPG9 | 05    | A    | Solder Terminal | PG9 Mounting / Gland Nut Thread |
| PXMBNI12FBF08ASCPG9 | 08    | A    | Solder Terminal | PG9 Mounting / Gland Nut Thread |
| PXMBNI12FBF12ASCPG9 | 12    | A    | Solder Terminal | PG9 Mounting / Gland Nut Thread |
| PXMBNI12FBF05BSCPG9 | 05    | B    | Solder Terminal | PG9 Mounting / Gland Nut Thread |
| PXMBNI12FBF04DSCPG9 | 04    | D    | Solder Terminal | PG9 Mounting / Gland Nut Thread |

M12 Right Angled Female



PXPTPU12RAF  
PXPPVC12RAF

- 3, 4, 5, 8 and 12 poles
- 1,2,3,5,10 & 15M cable options
- Overmold Flex Body
- Mates with Flex Inline Body & panel mount connectors



| Part Number            | Poles | Code | Termination    | Lead Length | Cable Material |
|------------------------|-------|------|----------------|-------------|----------------|
| PXPPVC12RAF03ACL010PVC | 03    | A    | Overmold Cable | 1m          | PVC            |
| PXPTPU12RAF03ACL010PUR | 03    | A    | Overmold Cable | 1m          | PUR            |
| PXPPVC12RAF03ACL020PVC | 03    | A    | Overmold Cable | 2m          | PVC            |
| PXPTPU12RAF03ACL020PUR | 03    | A    | Overmold Cable | 2m          | PUR            |
| PXPPVC12RAF03ACL030PVC | 03    | A    | Overmold Cable | 3m          | PVC            |
| PXPTPU12RAF03ACL030PUR | 03    | A    | Overmold Cable | 3m          | PUR            |
| PXPPVC12RAF03ACL050PVC | 03    | A    | Overmold Cable | 5m          | PVC            |
| PXPTPU12RAF03ACL050PUR | 03    | A    | Overmold Cable | 5m          | PUR            |
| PXPPVC12RAF03ACL100PVC | 03    | A    | Overmold Cable | 10m         | PVC            |
| PXPTPU12RAF03ACL100PUR | 03    | A    | Overmold Cable | 10m         | PUR            |
| PXPPVC12RAF03ACL150PVC | 03    | A    | Overmold Cable | 15m         | PVC            |
| PXPTPU12RAF03ACL150PUR | 03    | A    | Overmold Cable | 15m         | PUR            |
| PXPPVC12RAF04ACL010PVC | 04    | A    | Overmold Cable | 1m          | PVC            |
| PXPTPU12RAF04ACL010PUR | 04    | A    | Overmold Cable | 1m          | PUR            |
| PXPPVC12RAF04ACL020PVC | 04    | A    | Overmold Cable | 2m          | PVC            |
| PXPTPU12RAF04ACL020PUR | 04    | A    | Overmold Cable | 2m          | PUR            |
| PXPPVC12RAF04ACL030PVC | 04    | A    | Overmold Cable | 3m          | PVC            |
| PXPTPU12RAF04ACL030PUR | 04    | A    | Overmold Cable | 3m          | PUR            |
| PXPPVC12RAF04ACL050PVC | 04    | A    | Overmold Cable | 5m          | PVC            |
| PXPTPU12RAF04ACL050PUR | 04    | A    | Overmold Cable | 5m          | PUR            |
| PXPPVC12RAF04ACL100PVC | 04    | A    | Overmold Cable | 10m         | PVC            |
| PXPTPU12RAF04ACL100PUR | 04    | A    | Overmold Cable | 10m         | PUR            |
| PXPPVC12RAF04ACL150PVC | 04    | A    | Overmold Cable | 15m         | PVC            |
| PXPTPU12RAF04ACL150PUR | 04    | A    | Overmold Cable | 15m         | PUR            |
| PXPPVC12RAF05ACL010PVC | 05    | A    | Overmold Cable | 1m          | PVC            |
| PXPTPU12RAF05ACL010PUR | 05    | A    | Overmold Cable | 1m          | PUR            |
| PXPPVC12RAF05ACL020PVC | 05    | A    | Overmold Cable | 2m          | PVC            |
| PXPTPU12RAF05ACL020PUR | 05    | A    | Overmold Cable | 2m          | PUR            |
| PXPPVC12RAF05ACL030PVC | 05    | A    | Overmold Cable | 3m          | PVC            |
| PXPTPU12RAF05ACL030PUR | 05    | A    | Overmold Cable | 3m          | PUR            |
| PXPPVC12RAF05ACL050PVC | 05    | A    | Overmold Cable | 5m          | PVC            |
| PXPTPU12RAF05ACL050PUR | 05    | A    | Overmold Cable | 5m          | PUR            |
| PXPPVC12RAF05ACL100PVC | 05    | A    | Overmold Cable | 10m         | PVC            |
| PXPTPU12RAF05ACL100PUR | 05    | A    | Overmold Cable | 10m         | PUR            |
| PXPPVC12RAF05ACL150PVC | 05    | A    | Overmold Cable | 15m         | PVC            |
| PXPTPU12RAF05ACL150PUR | 05    | A    | Overmold Cable | 15m         | PUR            |
| PXPPVC12RAF08ACL010PVC | 08    | A    | Overmold Cable | 1m          | PVC            |
| PXPTPU12RAF08ACL010PUR | 08    | A    | Overmold Cable | 1m          | PUR            |
| PXPPVC12RAF08ACL020PVC | 08    | A    | Overmold Cable | 2m          | PVC            |
| PXPTPU12RAF08ACL020PUR | 08    | A    | Overmold Cable | 2m          | PUR            |
| PXPPVC12RAF08ACL030PVC | 08    | A    | Overmold Cable | 3m          | PVC            |
| PXPTPU12RAF08ACL030PUR | 08    | A    | Overmold Cable | 3m          | PUR            |
| PXPPVC12RAF08ACL050PVC | 08    | A    | Overmold Cable | 5m          | PVC            |
| PXPTPU12RAF08ACL050PUR | 08    | A    | Overmold Cable | 5m          | PUR            |
| PXPPVC12RAF08ACL100PVC | 08    | A    | Overmold Cable | 10m         | PVC            |
| PXPTPU12RAF08ACL100PUR | 08    | A    | Overmold Cable | 10m         | PUR            |
| PXPPVC12RAF08ACL150PVC | 08    | A    | Overmold Cable | 15m         | PVC            |
| PXPTPU12RAF08ACL150PUR | 08    | A    | Overmold Cable | 15m         | PUR            |
| PXPPVC12RAF12ACL010PVC | 12    | A    | Overmold Cable | 1m          | PVC            |
| PXPTPU12RAF12ACL010PUR | 12    | A    | Overmold Cable | 1m          | PUR            |
| PXPPVC12RAF12ACL020PVC | 12    | A    | Overmold Cable | 2m          | PVC            |
| PXPTPU12RAF12ACL020PUR | 12    | A    | Overmold Cable | 2m          | PUR            |
| PXPPVC12RAF12ACL030PVC | 12    | A    | Overmold Cable | 3m          | PVC            |
| PXPTPU12RAF12ACL030PUR | 12    | A    | Overmold Cable | 3m          | PUR            |
| PXPPVC12RAF12ACL050PVC | 12    | A    | Overmold Cable | 5m          | PVC            |
| PXPTPU12RAF12ACL050PUR | 12    | A    | Overmold Cable | 5m          | PUR            |
| PXPPVC12RAF12ACL100PVC | 12    | A    | Overmold Cable | 10m         | PVC            |
| PXPTPU12RAF12ACL100PUR | 12    | A    | Overmold Cable | 10m         | PUR            |
| PXPPVC12RAF12ACL150PVC | 12    | A    | Overmold Cable | 15m         | PVC            |
| PXPTPU12RAF12ACL150PUR | 12    | A    | Overmold Cable | 15m         | PUR            |

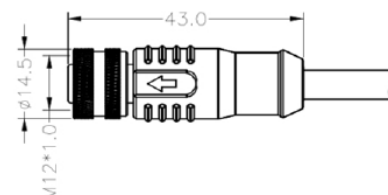
|                        |    |   |                |     |     |
|------------------------|----|---|----------------|-----|-----|
| PXPPVC12RAF05BCL010PVC | 05 | B | Overmold Cable | 1m  | PVC |
| PXPTPU12RAF05BCL010PUR | 05 | B | Overmold Cable | 1m  | PUR |
| PXPPVC12RAF05BCL020PVC | 05 | B | Overmold Cable | 2m  | PVC |
| PXPTPU12RAF05BCL020PUR | 05 | B | Overmold Cable | 2m  | PUR |
| PXPPVC12RAF05BCL030PVC | 05 | B | Overmold Cable | 3m  | PVC |
| PXPTPU12RAF05BCL030PUR | 05 | B | Overmold Cable | 3m  | PUR |
| PXPPVC12RAF05BCL050PVC | 05 | B | Overmold Cable | 5m  | PVC |
| PXPTPU12RAF05BCL050PUR | 05 | B | Overmold Cable | 5m  | PUR |
| PXPPVC12RAF05BCL100PVC | 05 | B | Overmold Cable | 10m | PVC |
| PXPTPU12RAF05BCL100PUR | 05 | B | Overmold Cable | 10m | PUR |
| PXPPVC12RAF05BCL150PVC | 05 | B | Overmold Cable | 15m | PVC |
| PXPTPU12RAF05BCL150PUR | 05 | B | Overmold Cable | 15m | PUR |
| PXPPVC12RAF04DCL010PVC | 04 | D | Overmold Cable | 1m  | PVC |
| PXPTPU12RAF04DCL010PUR | 04 | D | Overmold Cable | 1m  | PUR |
| PXPPVC12RAF04DCL020PVC | 04 | D | Overmold Cable | 2m  | PVC |
| PXPTPU12RAF04DCL020PUR | 04 | D | Overmold Cable | 2m  | PUR |
| PXPPVC12RAF04DCL030PVC | 04 | D | Overmold Cable | 3m  | PVC |
| PXPTPU12RAF04DCL030PUR | 04 | D | Overmold Cable | 3m  | PUR |
| PXPPVC12RAF04DCL050PVC | 04 | D | Overmold Cable | 5m  | PVC |
| PXPTPU12RAF04DCL050PUR | 04 | D | Overmold Cable | 5m  | PUR |
| PXPPVC12RAF04DCL100PVC | 04 | D | Overmold Cable | 10m | PVC |
| PXPTPU12RAF04DCL100PUR | 04 | D | Overmold Cable | 10m | PUR |
| PXPPVC12RAF04DCL150PVC | 04 | D | Overmold Cable | 15m | PVC |
| PXPTPU12RAF04DCL150PUR | 04 | D | Overmold Cable | 15m | PUR |

M12 Flex Body Female



PXPTPU12FBF  
PXPPVC12FBF

- 3, 4, 5, 8 and 12 poles
- 1,2,3,5,10 & 15M cable options
- Overmold Flex Body
- Mates with Flex Inline Body & panel mount connectors



| Part Number            | Poles | Code | Termination    | Lead Length | Cable Material |
|------------------------|-------|------|----------------|-------------|----------------|
| PXPPVC12FBF03ACL010PVC | 03    | A    | Overmold Cable | 1m          | PVC            |
| PXPTPU12FBF03ACL010PUR | 03    | A    | Overmold Cable | 1m          | PUR            |
| PXPPVC12FBF03ACL020PVC | 03    | A    | Overmold Cable | 2m          | PVC            |
| PXPTPU12FBF03ACL020PUR | 03    | A    | Overmold Cable | 2m          | PUR            |
| PXPPVC12FBF03ACL030PVC | 03    | A    | Overmold Cable | 3m          | PVC            |
| PXPTPU12FBF03ACL030PUR | 03    | A    | Overmold Cable | 3m          | PUR            |
| PXPPVC12FBF03ACL050PVC | 03    | A    | Overmold Cable | 5m          | PVC            |
| PXPTPU12FBF03ACL050PUR | 03    | A    | Overmold Cable | 5m          | PUR            |
| PXPPVC12FBF03ACL100PVC | 03    | A    | Overmold Cable | 10m         | PVC            |
| PXPTPU12FBF03ACL100PUR | 03    | A    | Overmold Cable | 10m         | PUR            |
| PXPPVC12FBF03ACL150PVC | 03    | A    | Overmold Cable | 15m         | PVC            |
| PXPTPU12FBF03ACL150PUR | 03    | A    | Overmold Cable | 15m         | PUR            |
| PXPPVC12FBF04ACL010PVC | 04    | A    | Overmold Cable | 1m          | PVC            |
| PXPTPU12FBF04ACL010PUR | 04    | A    | Overmold Cable | 1m          | PUR            |
| PXPPVC12FBF04ACL020PVC | 04    | A    | Overmold Cable | 2m          | PVC            |
| PXPTPU12FBF04ACL020PUR | 04    | A    | Overmold Cable | 2m          | PUR            |
| PXPPVC12FBF04ACL030PVC | 04    | A    | Overmold Cable | 3m          | PVC            |
| PXPTPU12FBF04ACL030PUR | 04    | A    | Overmold Cable | 3m          | PUR            |
| PXPPVC12FBF04ACL050PVC | 04    | A    | Overmold Cable | 5m          | PVC            |
| PXPTPU12FBF04ACL050PUR | 04    | A    | Overmold Cable | 5m          | PUR            |
| PXPPVC12FBF04ACL100PVC | 04    | A    | Overmold Cable | 10m         | PVC            |
| PXPTPU12FBF04ACL100PUR | 04    | A    | Overmold Cable | 10m         | PUR            |
| PXPPVC12FBF04ACL150PVC | 04    | A    | Overmold Cable | 15m         | PVC            |
| PXPTPU12FBF04ACL150PUR | 04    | A    | Overmold Cable | 15m         | PUR            |
| PXPPVC12FBF05ACL010PVC | 05    | A    | Overmold Cable | 1m          | PVC            |
| PXPTPU12FBF05ACL010PUR | 05    | A    | Overmold Cable | 1m          | PUR            |
| PXPPVC12FBF05ACL020PVC | 05    | A    | Overmold Cable | 2m          | PVC            |
| PXPTPU12FBF05ACL020PUR | 05    | A    | Overmold Cable | 2m          | PUR            |
| PXPPVC12FBF05ACL030PVC | 05    | A    | Overmold Cable | 3m          | PVC            |
| PXPTPU12FBF05ACL030PUR | 05    | A    | Overmold Cable | 3m          | PUR            |
| PXPPVC12FBF05ACL050PVC | 05    | A    | Overmold Cable | 5m          | PVC            |
| PXPTPU12FBF05ACL050PUR | 05    | A    | Overmold Cable | 5m          | PUR            |
| PXPPVC12FBF05ACL100PVC | 05    | A    | Overmold Cable | 10m         | PVC            |
| PXPTPU12FBF05ACL100PUR | 05    | A    | Overmold Cable | 10m         | PUR            |
| PXPPVC12FBF05ACL150PVC | 05    | A    | Overmold Cable | 15m         | PVC            |
| PXPTPU12FBF05ACL150PUR | 05    | A    | Overmold Cable | 15m         | PUR            |

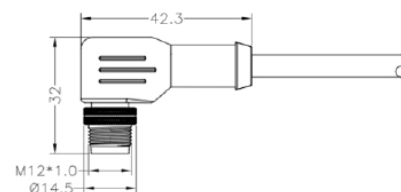
|                        |    |   |                |     |     |
|------------------------|----|---|----------------|-----|-----|
| PXPPVC12FBF08ACL010PVC | 08 | A | Overmold Cable | 1m  | PVC |
| PXPTPU12FBF08ACL010PUR | 08 | A | Overmold Cable | 1m  | PUR |
| PXPPVC12FBF08ACL020PVC | 08 | A | Overmold Cable | 2m  | PVC |
| PXPTPU12FBF08ACL020PUR | 08 | A | Overmold Cable | 2m  | PUR |
| PXPPVC12FBF08ACL030PVC | 08 | A | Overmold Cable | 3m  | PVC |
| PXPTPU12FBF08ACL030PUR | 08 | A | Overmold Cable | 3m  | PUR |
| PXPPVC12FBF08ACL050PVC | 08 | A | Overmold Cable | 5m  | PVC |
| PXPTPU12FBF08ACL050PUR | 08 | A | Overmold Cable | 5m  | PUR |
| PXPPVC12FBF08ACL100PVC | 08 | A | Overmold Cable | 10m | PVC |
| PXPTPU12FBF08ACL100PUR | 08 | A | Overmold Cable | 10m | PUR |
| PXPPVC12FBF08ACL150PVC | 08 | A | Overmold Cable | 15m | PVC |
| PXPTPU12FBF08ACL150PUR | 08 | A | Overmold Cable | 15m | PUR |
| PXPPVC12FBF12ACL010PVC | 12 | A | Overmold Cable | 1m  | PVC |
| PXPTPU12FBF12ACL010PUR | 12 | A | Overmold Cable | 1m  | PUR |
| PXPPVC12FBF12ACL020PVC | 12 | A | Overmold Cable | 2m  | PVC |
| PXPTPU12FBF12ACL020PUR | 12 | A | Overmold Cable | 2m  | PUR |
| PXPPVC12FBF12ACL030PVC | 12 | A | Overmold Cable | 3m  | PVC |
| PXPTPU12FBF12ACL030PUR | 12 | A | Overmold Cable | 3m  | PUR |
| PXPPVC12FBF12ACL050PVC | 12 | A | Overmold Cable | 5m  | PVC |
| PXPTPU12FBF12ACL050PUR | 12 | A | Overmold Cable | 5m  | PUR |
| PXPPVC12FBF12ACL100PVC | 12 | A | Overmold Cable | 10m | PVC |
| PXPTPU12FBF12ACL100PUR | 12 | A | Overmold Cable | 10m | PUR |
| PXPPVC12FBF12ACL150PVC | 12 | A | Overmold Cable | 15m | PVC |
| PXPTPU12FBF12ACL150PUR | 12 | A | Overmold Cable | 15m | PUR |
| PXPPVC12FBF05BCL010PVC | 05 | B | Overmold Cable | 1m  | PVC |
| PXPTPU12FBF05BCL010PUR | 05 | B | Overmold Cable | 1m  | PUR |
| PXPPVC12FBF05BCL020PVC | 05 | B | Overmold Cable | 2m  | PVC |
| PXPTPU12FBF05BCL020PUR | 05 | B | Overmold Cable | 2m  | PUR |
| PXPPVC12FBF05BCL030PVC | 05 | B | Overmold Cable | 3m  | PVC |
| PXPTPU12FBF05BCL030PUR | 05 | B | Overmold Cable | 3m  | PUR |
| PXPPVC12FBF05BCL050PVC | 05 | B | Overmold Cable | 5m  | PVC |
| PXPTPU12FBF05BCL050PUR | 05 | B | Overmold Cable | 5m  | PUR |
| PXPPVC12FBF05BCL100PVC | 05 | B | Overmold Cable | 10m | PVC |
| PXPTPU12FBF05BCL100PUR | 05 | B | Overmold Cable | 10m | PUR |
| PXPPVC12FBF05BCL150PVC | 05 | B | Overmold Cable | 15m | PVC |
| PXPTPU12FBF05BCL150PUR | 05 | B | Overmold Cable | 15m | PUR |
| PXPPVC12FBF04DCL010PVC | 04 | D | Overmold Cable | 1m  | PVC |
| PXPTPU12FBF04DCL010PUR | 04 | D | Overmold Cable | 1m  | PUR |
| PXPPVC12FBF04DCL020PVC | 04 | D | Overmold Cable | 2m  | PVC |
| PXPTPU12FBF04DCL020PUR | 04 | D | Overmold Cable | 2m  | PUR |
| PXPPVC12FBF04DCL030PVC | 04 | D | Overmold Cable | 3m  | PVC |
| PXPTPU12FBF04DCL030PUR | 04 | D | Overmold Cable | 3m  | PUR |
| PXPPVC12FBF04DCL050PVC | 04 | D | Overmold Cable | 5m  | PVC |
| PXPTPU12FBF04DCL050PUR | 04 | D | Overmold Cable | 5m  | PUR |
| PXPPVC12FBF04DCL100PVC | 04 | D | Overmold Cable | 10m | PVC |
| PXPTPU12FBF04DCL100PUR | 04 | D | Overmold Cable | 10m | PUR |
| PXPPVC12FBF04DCL150PVC | 04 | D | Overmold Cable | 15m | PVC |
| PXPTPU12FBF04DCL150PUR | 04 | D | Overmold Cable | 15m | PUR |

M12 Right Angled Male



PXPTPU12RAM  
PXPPVC12RAM

- 3, 4, 5, 8 and 12 poles
- 1,2,3,5,10 & 15M cable options
- Overmold Flex Inline Body
- Mates with Flex Body & panel mount connectors



| Part Number            | Poles | Code | Termination    | Lead Length | Cable Material |
|------------------------|-------|------|----------------|-------------|----------------|
| PXPPVC12RAM03ACL010PVC | 03    | A    | Overmold Cable | 1m          | PVC            |
| PXPTPU12RAM03ACL010PUR | 03    | A    | Overmold Cable | 1m          | PUR            |
| PXPPVC12RAM03ACL020PVC | 03    | A    | Overmold Cable | 2m          | PVC            |
| PXPTPU12RAM03ACL020PUR | 03    | A    | Overmold Cable | 2m          | PUR            |
| PXPPVC12RAM03ACL030PVC | 03    | A    | Overmold Cable | 3m          | PVC            |
| PXPTPU12RAM03ACL030PUR | 03    | A    | Overmold Cable | 3m          | PUR            |
| PXPPVC12RAM03ACL050PVC | 03    | A    | Overmold Cable | 5m          | PVC            |
| PXPTPU12RAM03ACL050PUR | 03    | A    | Overmold Cable | 5m          | PUR            |
| PXPPVC12RAM03ACL100PVC | 03    | A    | Overmold Cable | 10m         | PVC            |
| PXPTPU12RAM03ACL100PUR | 03    | A    | Overmold Cable | 10m         | PUR            |
| PXPPVC12RAM03ACL150PVC | 03    | A    | Overmold Cable | 15m         | PVC            |
| PXPTPU12RAM03ACL150PUR | 03    | A    | Overmold Cable | 15m         | PUR            |

|                        |    |   |                |     |     |
|------------------------|----|---|----------------|-----|-----|
| PXPPVC12RAM04ACL010PVC | 04 | A | Overmold Cable | 1m  | PVC |
| PXPTPU12RAM04ACL010PUR | 04 | A | Overmold Cable | 1m  | PUR |
| PXPPVC12RAM04ACL020PVC | 04 | A | Overmold Cable | 2m  | PVC |
| PXPTPU12RAM04ACL020PUR | 04 | A | Overmold Cable | 2m  | PUR |
| PXPPVC12RAM04ACL030PVC | 04 | A | Overmold Cable | 3m  | PVC |
| PXPTPU12RAM04ACL030PUR | 04 | A | Overmold Cable | 3m  | PUR |
| PXPPVC12RAM04ACL050PVC | 04 | A | Overmold Cable | 5m  | PVC |
| PXPTPU12RAM04ACL050PUR | 04 | A | Overmold Cable | 5m  | PUR |
| PXPPVC12RAM04ACL100PVC | 04 | A | Overmold Cable | 10m | PVC |
| PXPTPU12RAM04ACL100PUR | 04 | A | Overmold Cable | 10m | PUR |
| PXPPVC12RAM04ACL150PVC | 04 | A | Overmold Cable | 15m | PVC |
| PXPTPU12RAM04ACL150PUR | 04 | A | Overmold Cable | 15m | PUR |
| PXPPVC12RAM05ACL010PVC | 05 | A | Overmold Cable | 1m  | PVC |
| PXPTPU12RAM05ACL010PUR | 05 | A | Overmold Cable | 1m  | PUR |
| PXPPVC12RAM05ACL020PVC | 05 | A | Overmold Cable | 2m  | PVC |
| PXPTPU12RAM05ACL020PUR | 05 | A | Overmold Cable | 2m  | PUR |
| PXPPVC12RAM05ACL030PVC | 05 | A | Overmold Cable | 3m  | PVC |
| PXPTPU12RAM05ACL030PUR | 05 | A | Overmold Cable | 3m  | PUR |
| PXPPVC12RAM05ACL050PVC | 05 | A | Overmold Cable | 5m  | PVC |
| PXPTPU12RAM05ACL050PUR | 05 | A | Overmold Cable | 5m  | PUR |
| PXPPVC12RAM05ACL100PVC | 05 | A | Overmold Cable | 10m | PVC |
| PXPTPU12RAM05ACL100PUR | 05 | A | Overmold Cable | 10m | PUR |
| PXPPVC12RAM05ACL150PVC | 05 | A | Overmold Cable | 15m | PVC |
| PXPTPU12RAM05ACL150PUR | 05 | A | Overmold Cable | 15m | PUR |
| PXPPVC12RAM08ACL010PVC | 08 | A | Overmold Cable | 1m  | PVC |
| PXPTPU12RAM08ACL010PUR | 08 | A | Overmold Cable | 1m  | PUR |
| PXPPVC12RAM08ACL020PVC | 08 | A | Overmold Cable | 2m  | PVC |
| PXPTPU12RAM08ACL020PUR | 08 | A | Overmold Cable | 2m  | PUR |
| PXPPVC12RAM08ACL030PVC | 08 | A | Overmold Cable | 3m  | PVC |
| PXPTPU12RAM08ACL030PUR | 08 | A | Overmold Cable | 3m  | PUR |
| PXPPVC12RAM08ACL050PVC | 08 | A | Overmold Cable | 5m  | PVC |
| PXPTPU12RAM08ACL050PUR | 08 | A | Overmold Cable | 5m  | PUR |
| PXPPVC12RAM08ACL100PVC | 08 | A | Overmold Cable | 10m | PVC |
| PXPTPU12RAM08ACL100PUR | 08 | A | Overmold Cable | 10m | PUR |
| PXPPVC12RAM08ACL150PVC | 08 | A | Overmold Cable | 15m | PVC |
| PXPTPU12RAM08ACL150PUR | 08 | A | Overmold Cable | 15m | PUR |
| PXPPVC12RAM12ACL010PVC | 12 | A | Overmold Cable | 1m  | PVC |
| PXPTPU12RAM12ACL010PUR | 12 | A | Overmold Cable | 1m  | PUR |
| PXPPVC12RAM12ACL020PVC | 12 | A | Overmold Cable | 2m  | PVC |
| PXPTPU12RAM12ACL020PUR | 12 | A | Overmold Cable | 2m  | PUR |
| PXPPVC12RAM12ACL030PVC | 12 | A | Overmold Cable | 3m  | PVC |
| PXPTPU12RAM12ACL030PUR | 12 | A | Overmold Cable | 3m  | PUR |
| PXPPVC12RAM12ACL050PVC | 12 | A | Overmold Cable | 5m  | PVC |
| PXPTPU12RAM12ACL050PUR | 12 | A | Overmold Cable | 5m  | PUR |
| PXPPVC12RAM12ACL100PVC | 12 | A | Overmold Cable | 10m | PVC |
| PXPTPU12RAM12ACL100PUR | 12 | A | Overmold Cable | 10m | PUR |
| PXPPVC12RAM12ACL150PVC | 12 | A | Overmold Cable | 15m | PVC |
| PXPTPU12RAM12ACL150PUR | 12 | A | Overmold Cable | 15m | PUR |
| PXPPVC12RAM05BCL010PVC | 05 | B | Overmold Cable | 1m  | PVC |
| PXPTPU12RAM05BCL010PUR | 05 | B | Overmold Cable | 1m  | PUR |
| PXPPVC12RAM05BCL020PVC | 05 | B | Overmold Cable | 2m  | PVC |
| PXPTPU12RAM05BCL020PUR | 05 | B | Overmold Cable | 2m  | PUR |
| PXPPVC12RAM05BCL030PVC | 05 | B | Overmold Cable | 3m  | PVC |
| PXPTPU12RAM05BCL030PUR | 05 | B | Overmold Cable | 3m  | PUR |
| PXPPVC12RAM05BCL050PVC | 05 | B | Overmold Cable | 5m  | PVC |
| PXPTPU12RAM05BCL050PUR | 05 | B | Overmold Cable | 5m  | PUR |
| PXPPVC12RAM05BCL100PVC | 05 | B | Overmold Cable | 10m | PVC |
| PXPTPU12RAM05BCL100PUR | 05 | B | Overmold Cable | 10m | PUR |
| PXPPVC12RAM05BCL150PVC | 05 | B | Overmold Cable | 15m | PVC |
| PXPTPU12RAM05BCL150PUR | 05 | B | Overmold Cable | 15m | PUR |
| PXPPVC12RAM04DCL010PVC | 04 | D | Overmold Cable | 1m  | PVC |
| PXPTPU12RAM04DCL010PUR | 04 | D | Overmold Cable | 1m  | PUR |
| PXPPVC12RAM04DCL020PVC | 04 | D | Overmold Cable | 2m  | PVC |
| PXPTPU12RAM04DCL020PUR | 04 | D | Overmold Cable | 2m  | PUR |
| PXPPVC12RAM04DCL030PVC | 04 | D | Overmold Cable | 3m  | PVC |
| PXPTPU12RAM04DCL030PUR | 04 | D | Overmold Cable | 3m  | PUR |
| PXPPVC12RAM04DCL050PVC | 04 | D | Overmold Cable | 5m  | PVC |
| PXPTPU12RAM04DCL050PUR | 04 | D | Overmold Cable | 5m  | PUR |
| PXPPVC12RAM04DCL100PVC | 04 | D | Overmold Cable | 10m | PVC |
| PXPTPU12RAM04DCL100PUR | 04 | D | Overmold Cable | 10m | PUR |
| PXPPVC12RAM04DCL150PVC | 04 | D | Overmold Cable | 15m | PVC |
| PXPTPU12RAM04DCL150PUR | 04 | D | Overmold Cable | 15m | PUR |

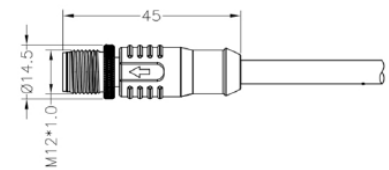


M12 Flex Inline Body Male



PXPTPU12FIM  
PXPPVC12FIM

- 3, 4, 5, 8 and 12 poles
- 1,2,3,5,10 & 15M cable options
- Overmold Flex Inline Body
- Mates with Flex Body & panel mount connectors



| Part Number            | Poles | Code | Termination    | Lead Length | Cable Material |
|------------------------|-------|------|----------------|-------------|----------------|
| PXPPVC12FIM03ACL010PVC | 03    | A    | Overmold Cable | 1m          | PVC            |
| PXPTPU12FIM03ACL010PUR | 03    | A    | Overmold Cable | 1m          | PUR            |
| PXPPVC12FIM03ACL020PVC | 03    | A    | Overmold Cable | 2m          | PVC            |
| PXPTPU12FIM03ACL020PUR | 03    | A    | Overmold Cable | 2m          | PUR            |
| PXPPVC12FIM03ACL030PVC | 03    | A    | Overmold Cable | 3m          | PVC            |
| PXPTPU12FIM03ACL030PUR | 03    | A    | Overmold Cable | 3m          | PUR            |
| PXPPVC12FIM03ACL050PVC | 03    | A    | Overmold Cable | 5m          | PVC            |
| PXPTPU12FIM03ACL050PUR | 03    | A    | Overmold Cable | 5m          | PUR            |
| PXPPVC12FIM03ACL100PVC | 03    | A    | Overmold Cable | 10m         | PVC            |
| PXPTPU12FIM03ACL100PUR | 03    | A    | Overmold Cable | 10m         | PUR            |
| PXPPVC12FIM03ACL150PVC | 03    | A    | Overmold Cable | 15m         | PVC            |
| PXPTPU12FIM03ACL150PUR | 03    | A    | Overmold Cable | 15m         | PUR            |
| PXPPVC12FIM04ACL010PVC | 04    | A    | Overmold Cable | 1m          | PVC            |
| PXPTPU12FIM04ACL010PUR | 04    | A    | Overmold Cable | 1m          | PUR            |
| PXPPVC12FIM04ACL020PVC | 04    | A    | Overmold Cable | 2m          | PVC            |
| PXPTPU12FIM04ACL020PUR | 04    | A    | Overmold Cable | 2m          | PUR            |
| PXPPVC12FIM04ACL030PVC | 04    | A    | Overmold Cable | 3m          | PVC            |
| PXPTPU12FIM04ACL030PUR | 04    | A    | Overmold Cable | 3m          | PUR            |
| PXPPVC12FIM04ACL050PVC | 04    | A    | Overmold Cable | 5m          | PVC            |
| PXPTPU12FIM04ACL050PUR | 04    | A    | Overmold Cable | 5m          | PUR            |
| PXPPVC12FIM04ACL100PVC | 04    | A    | Overmold Cable | 10m         | PVC            |
| PXPTPU12FIM04ACL100PUR | 04    | A    | Overmold Cable | 10m         | PUR            |
| PXPPVC12FIM04ACL150PVC | 04    | A    | Overmold Cable | 15m         | PVC            |
| PXPTPU12FIM04ACL150PUR | 04    | A    | Overmold Cable | 15m         | PUR            |
| PXPPVC12FIM05ACL010PVC | 05    | A    | Overmold Cable | 1m          | PVC            |
| PXPTPU12FIM05ACL010PUR | 05    | A    | Overmold Cable | 1m          | PUR            |
| PXPPVC12FIM05ACL020PVC | 05    | A    | Overmold Cable | 2m          | PVC            |
| PXPTPU12FIM05ACL020PUR | 05    | A    | Overmold Cable | 2m          | PUR            |
| PXPPVC12FIM05ACL030PVC | 05    | A    | Overmold Cable | 3m          | PVC            |
| PXPTPU12FIM05ACL030PUR | 05    | A    | Overmold Cable | 3m          | PUR            |
| PXPPVC12FIM05ACL050PVC | 05    | A    | Overmold Cable | 5m          | PVC            |
| PXPTPU12FIM05ACL050PUR | 05    | A    | Overmold Cable | 5m          | PUR            |
| PXPPVC12FIM05ACL100PVC | 05    | A    | Overmold Cable | 10m         | PVC            |
| PXPTPU12FIM05ACL100PUR | 05    | A    | Overmold Cable | 10m         | PUR            |
| PXPPVC12FIM05ACL150PVC | 05    | A    | Overmold Cable | 15m         | PVC            |
| PXPTPU12FIM05ACL150PUR | 05    | A    | Overmold Cable | 15m         | PUR            |
| PXPPVC12FIM08ACL010PVC | 08    | A    | Overmold Cable | 1m          | PVC            |
| PXPTPU12FIM08ACL010PUR | 08    | A    | Overmold Cable | 1m          | PUR            |
| PXPPVC12FIM08ACL020PVC | 08    | A    | Overmold Cable | 2m          | PVC            |
| PXPTPU12FIM08ACL020PUR | 08    | A    | Overmold Cable | 2m          | PUR            |
| PXPPVC12FIM08ACL030PVC | 08    | A    | Overmold Cable | 3m          | PVC            |
| PXPTPU12FIM08ACL030PUR | 08    | A    | Overmold Cable | 3m          | PUR            |
| PXPPVC12FIM08ACL050PVC | 08    | A    | Overmold Cable | 5m          | PVC            |
| PXPTPU12FIM08ACL050PUR | 08    | A    | Overmold Cable | 5m          | PUR            |
| PXPPVC12FIM08ACL100PVC | 08    | A    | Overmold Cable | 10m         | PVC            |
| PXPTPU12FIM08ACL100PUR | 08    | A    | Overmold Cable | 10m         | PUR            |
| PXPPVC12FIM08ACL150PVC | 08    | A    | Overmold Cable | 15m         | PVC            |
| PXPTPU12FIM08ACL150PUR | 08    | A    | Overmold Cable | 15m         | PUR            |
| PXPPVC12FIM12ACL010PVC | 12    | A    | Overmold Cable | 1m          | PVC            |
| PXPTPU12FIM12ACL010PUR | 12    | A    | Overmold Cable | 1m          | PUR            |
| PXPPVC12FIM12ACL020PVC | 12    | A    | Overmold Cable | 2m          | PVC            |
| PXPTPU12FIM12ACL020PUR | 12    | A    | Overmold Cable | 2m          | PUR            |
| PXPPVC12FIM12ACL030PVC | 12    | A    | Overmold Cable | 3m          | PVC            |
| PXPTPU12FIM12ACL030PUR | 12    | A    | Overmold Cable | 3m          | PUR            |
| PXPPVC12FIM12ACL050PVC | 12    | A    | Overmold Cable | 5m          | PVC            |
| PXPTPU12FIM12ACL050PUR | 12    | A    | Overmold Cable | 5m          | PUR            |
| PXPPVC12FIM12ACL100PVC | 12    | A    | Overmold Cable | 10m         | PVC            |
| PXPTPU12FIM12ACL100PUR | 12    | A    | Overmold Cable | 10m         | PUR            |
| PXPPVC12FIM12ACL150PVC | 12    | A    | Overmold Cable | 15m         | PVC            |
| PXPTPU12FIM12ACL150PUR | 12    | A    | Overmold Cable | 15m         | PUR            |



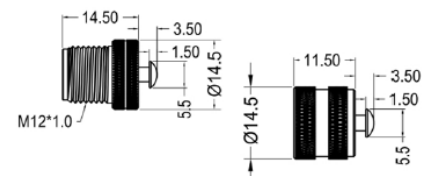
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|------------------------|----|---|----------------|-----|-----|
| PXPPVC12FIM05BCL010PVC | 05 | B | Overmold Cable | 1m  | PVC |
| PXPTPU12FIM05BCL010PUR | 05 | B | Overmold Cable | 1m  | PUR |
| PXPPVC12FIM05BCL020PVC | 05 | B | Overmold Cable | 2m  | PVC |
| PXPTPU12FIM05BCL020PUR | 05 | B | Overmold Cable | 2m  | PUR |
| PXPPVC12FIM05BCL030PVC | 05 | B | Overmold Cable | 3m  | PVC |
| PXPTPU12FIM05BCL030PUR | 05 | B | Overmold Cable | 3m  | PUR |
| PXPPVC12FIM05BCL050PVC | 05 | B | Overmold Cable | 5m  | PVC |
| PXPTPU12FIM05BCL050PUR | 05 | B | Overmold Cable | 5m  | PUR |
| PXPPVC12FIM05BCL100PVC | 05 | B | Overmold Cable | 10m | PVC |
| PXPTPU12FIM05BCL100PUR | 05 | B | Overmold Cable | 10m | PUR |
| PXPPVC12FIM05BCL150PVC | 05 | B | Overmold Cable | 15m | PVC |
| PXPTPU12FIM05BCL150PUR | 05 | B | Overmold Cable | 15m | PUR |
| PXPPVC12FIM04DCL010PVC | 04 | D | Overmold Cable | 1m  | PVC |
| PXPTPU12FIM04DCL010PUR | 04 | D | Overmold Cable | 1m  | PUR |
| PXPPVC12FIM04DCL020PVC | 04 | D | Overmold Cable | 2m  | PVC |
| PXPTPU12FIM04DCL020PUR | 04 | D | Overmold Cable | 2m  | PUR |
| PXPPVC12FIM04DCL030PVC | 04 | D | Overmold Cable | 3m  | PVC |
| PXPTPU12FIM04DCL030PUR | 04 | D | Overmold Cable | 3m  | PUR |
| PXPPVC12FIM04DCL050PVC | 04 | D | Overmold Cable | 5m  | PVC |
| PXPTPU12FIM04DCL050PUR | 04 | D | Overmold Cable | 5m  | PUR |
| PXPPVC12FIM04DCL100PVC | 04 | D | Overmold Cable | 10m | PVC |
| PXPTPU12FIM04DCL100PUR | 04 | D | Overmold Cable | 10m | PUR |
| PXPPVC12FIM04DCL150PVC | 04 | D | Overmold Cable | 15m | PVC |
| PXPTPU12FIM04DCL150PUR | 04 | D | Overmold Cable | 15m | PUR |

PA66 M12 Sealing Cap



PXPPAM12

- Sealing caps to maintain IP rating
- Male & Female versions



#### Part Number

#### Series

#### Type

#### Material

PXPPAM12CAM  
PXPPAM12CAF

M12  
M12

Male  
Female

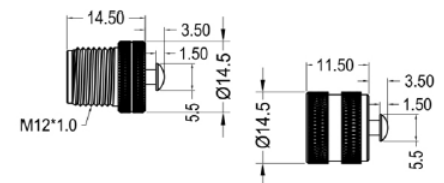
PA66  
PA66

Brass - Nickel Plating M12 Sealing Cap



PXMBNI12

- Sealing caps to maintain IP rating
- Male & Female versions



#### Part Number

#### Series

#### Type

#### Material

PXMBNI12CAM  
PXMBNI12CAF

M12  
M12

Male  
Female

Brass - Nickel Plating  
Brass - Nickel Plating

## Electrical

|                          |               |      |     |     |      |
|--------------------------|---------------|------|-----|-----|------|
| No. Poles:               | 3             | 4    | 5   | 8   | 12   |
| Current Rating:          | 4A            | 4A   | 4A  | 2A  | 1.5A |
| Voltage Rating (ac/dc) : | 250V          | 250V | 60V | 30V | 30V  |
| Contact Resistance:      | <10mΩ         |      |     |     |      |
| Insulation Resistance:   | >100MΩ        |      |     |     |      |
| AC Breakdown Voltage:    |               |      |     |     |      |
| 3 Pole                   | 1.5KV         |      |     |     |      |
| 4 Pole                   | 1.5KV         |      |     |     |      |
| 5 Pole                   | 1.5KV         |      |     |     |      |
| 8 Pole                   | 0.8KV         |      |     |     |      |
| 12 Pole                  | 0.8KV         |      |     |     |      |
| Operating Temp Range:    | -25°C to 80°C |      |     |     |      |

## Mechanical:

|                                      |                              |
|--------------------------------------|------------------------------|
| Locking Mechanism:                   | Screw coupling               |
| Sealing:                             | IP67                         |
| Contact Accomodation:                |                              |
| 3, 4, 5, 8 & 12 Pole                 | 28AWG-22AWG                  |
| Cable Acceptance:                    | 4.6 - 8.0mm Dia              |
| Terminations:                        |                              |
| 3, 4, 5, 8                           | PCB / Screw / Solder / Cable |
| 12                                   | PCB / Solder / Cable         |
| Mechanical Operation:                | 500 mating cycles            |
| Largest diameter over coupling ring: | 20.0mm                       |

## Materials:

## Panel Mount:

|                    |                               |
|--------------------|-------------------------------|
| Body:              | Nickel Plated Brass           |
| Coupling Nut:      | Nickel Plated Brass           |
| Colour:            | Grey                          |
| Pin Contacts:      | Brass, Gold plating           |
| Socket Contacts:   | Phosphor Bronze, Gold plating |
| O Rings & Gaskets: | Viton                         |
| RoHS:              | Compliant                     |

## Cable Connectors:

|                               |
|-------------------------------|
| TPU / PVC                     |
| Nickel Plated Brass           |
| Black                         |
| Brass, Gold plating           |
| Phosphor Bronze, Gold plating |
| Viton                         |
| Compliant                     |

## Flex & Inline Connectors:

|                               |
|-------------------------------|
| Nickel Plated Brass / PA66    |
| Nickel Plated Brass           |
| Black or Grey                 |
| Brass, Gold plating           |
| Phosphor Bronze, Gold plating |
| Viton                         |
| Compliant                     |

| MX     | XXX                                              | XX          | XX                       | X           | XX           | X    | XX                  |
|--------|--------------------------------------------------|-------------|--------------------------|-------------|--------------|------|---------------------|
| Series | Material                                         | Series Size | Body Style               | Orientation | NO. Contacts | Code | Termination         |
| PXM    | BNI = Brass Nickel<br>PAM = Polyamide            | 12          | FB = Flex Body           | M           | 03           | A    | ST = Screw Terminal |
| PXP    | TPU = overmold for PUR<br>PVC = overmold for PVC |             | FI = Flex Inline Body    | F           | 04           | B    | PC = PCB            |
|        |                                                  |             | RP = Rear Panel Mounting |             | 05           | D    | CL = Cable          |
|        |                                                  |             | RA = Right Angle         |             | 08           |      | SC = Solder         |
|        |                                                  |             | SC = Sealing Cap         |             | 12           |      |                     |

| XXX                         | XXX         | XXX            |
|-----------------------------|-------------|----------------|
| Mounting / Gland Nut Thread | Lead Length | Cable Material |
| PG9                         | 001         | PUR            |
| PG7                         | 002         | PVC            |
| M16                         | 003         |                |
| M12                         | 010         |                |
|                             | 020         |                |
|                             | 030         |                |
|                             | 050         |                |
|                             | 100         |                |
|                             | 150         |                |

With a rugged metal housing and environmental protection rating of IP67 when mated, Bulgin's robust M16 circular DIN connector range is an ideal solution for ensuring that power and signal connections are not compromised in harsh environments and industrial applications.



## Key features:

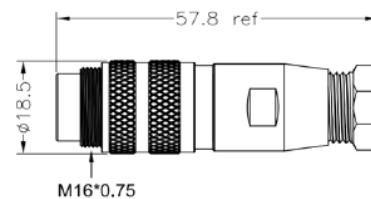
- ⬢ Screw locking compliant with DIN EN 61076-2-106
- ⬢ IP67 degree of protection
- ⬢ Robust metal connector
- ⬢ Excellent EMI shielding
- ⬢ Pole variants from 3 - 12

M16 Flex Inline Body Male



PXMBNI16FIM

- ⬡ 3, 4, 5, 6, 8 and 12 poles
- ⬡ Solder termination
- ⬡ Metal Flex Inline Body
- ⬡ Mates with Flex Body and panel mount connectors



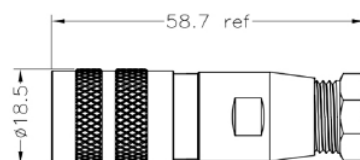
| Part Number      | Poles | Code | Termination     |
|------------------|-------|------|-----------------|
| PXMBNI16FIM03ASC | 03    | A    | Solder Terminal |
| PXMBNI16FIM04ASC | 04    | A    | Solder Terminal |
| PXMBNI16FIM05ASC | 05    | A    | Solder Terminal |
| PXMBNI16FIM06ASC | 06    | A    | Solder Terminal |
| PXMBNI16FIM08ASC | 08    | A    | Solder Terminal |
| PXMBNI16FIM12ASC | 12    | A    | Solder Terminal |

M16 Flex Body Female



PXMBNI16FBF

- ⬡ 3, 4, 5, 6, 8 and 12 poles
- ⬡ Solder termination
- ⬡ Metal Flex Body
- ⬡ Mates with Flex Inline Body and panel mount connectors



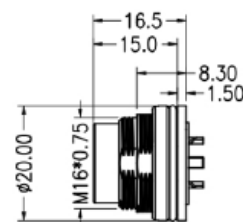
| Part Number      | Poles | Code | Termination     |
|------------------|-------|------|-----------------|
| PXMBNI16FBF03ASC | 03    | A    | Solder Terminal |
| PXMBNI16FBF04ASC | 04    | A    | Solder Terminal |
| PXMBNI16FBF05ASC | 05    | A    | Solder Terminal |
| PXMBNI16FBF06ASC | 06    | A    | Solder Terminal |
| PXMBNI16FBF08ASC | 08    | A    | Solder Terminal |
| PXMBNI16FBF12ASC | 12    | A    | Solder Terminal |

M16 Rear Panel Mounting Male



PXMBNI16RPM

- ⬡ 3, 4, 5, 6, 8 and 12 poles
- ⬡ Solder termination
- ⬡ Rear panel mount M16
- ⬡ Mates with Flex body connectors



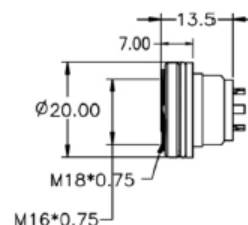
| Part Number      | Poles | Code | Termination     |
|------------------|-------|------|-----------------|
| PXMBNI16RPM03ASC | 03    | A    | Solder Terminal |
| PXMBNI16RPM04ASC | 04    | A    | Solder Terminal |
| PXMBNI16RPM05ASC | 05    | A    | Solder Terminal |
| PXMBNI16RPM06ASC | 06    | A    | Solder Terminal |
| PXMBNI16RPM08ASC | 08    | A    | Solder Terminal |
| PXMBNI16RPM12ASC | 12    | A    | Solder Terminal |

M16 Rear Panel Mounting Female



PXMBNI16RPF

- ⬡ 3, 4, 5, 6, 8 and 12 poles
- ⬡ Solder termination
- ⬡ Rear panel mount M16
- ⬡ Mates with Flex Inline Body connectors



| Part Number      | Poles | Code | Termination     |
|------------------|-------|------|-----------------|
| PXMBNI16RPF03ASC | 03    | A    | Solder Terminal |
| PXMBNI16RPF04ASC | 04    | A    | Solder Terminal |
| PXMBNI16RPF05ASC | 05    | A    | Solder Terminal |
| PXMBNI16RPF06ASC | 06    | A    | Solder Terminal |
| PXMBNI16RPF08ASC | 08    | A    | Solder Terminal |
| PXMBNI16RPF12ASC | 12    | A    | Solder Terminal |

### Electrical

|                          |                                            |      |      |      |     |     |
|--------------------------|--------------------------------------------|------|------|------|-----|-----|
| No. Poles:               | 3                                          | 4    | 5    | 6    | 8   | 12  |
| Current Rating:          | 7A                                         | 7A   | 6A   | 5A   | 5A  | 3A  |
| Voltage Rating (ac/dc) : | 250V                                       | 250V | 250V | 125V | 60V | 60V |
| Contact Resistance:      | <5mΩ 3, 4, 5, 6 and 8 Pole<br><3mΩ 12 Pole |      |      |      |     |     |
| Insulation Resistance:   | >100 <sup>3</sup> MΩ                       |      |      |      |     |     |
| AC Breakdown Voltage:    |                                            |      |      |      |     |     |
| 3 Pole                   | 2.0KV                                      |      |      |      |     |     |
| 4 Pole                   | 2.0KV                                      |      |      |      |     |     |
| 5 Pole                   | 2.0KV                                      |      |      |      |     |     |
| 6 Pole                   | 1.5KV                                      |      |      |      |     |     |
| 8 Pole                   | 1.5KV                                      |      |      |      |     |     |
| 12 Pole                  | 1.5KV                                      |      |      |      |     |     |
| Operating Temp Range:    | -25°C to 80°C                              |      |      |      |     |     |

### Mechanical:

|                              |                   |
|------------------------------|-------------------|
| Locking Mechanism:           | Screw coupling    |
| Sealing:                     | IP67              |
| Contact Accomodation:        |                   |
| 3, 4, 5, 6 and 8 Pole        | 20AWG             |
| 12 Pole                      | 24 AWG            |
| Cable Acceptance:            | 5.0 - 7.5mm Dia   |
| Terminations:                | Solder            |
| Mechanical Operation:        | 500 mating cycles |
| Diameter over coupling ring: | 18.5mm            |

### Materials:

|                    |                               |
|--------------------|-------------------------------|
| Body:              | Nickel Plated Brass           |
| Coupling Nut:      | Nickel Plated Brass           |
| Colour:            | Grey                          |
| Pin Contacts:      | Brass, Gold plating           |
| Socket Contacts:   | Phosphor Bronze, Gold plating |
| O Rings & Gaskets: | Viton                         |
| RoHS:              | Compliant                     |

### Panel Mount:

### Flex & Inline Connectors:

|                               |
|-------------------------------|
| Nickel Plated Brass           |
| Nickel Plated Brass           |
| Grey                          |
| Brass, Gold plating           |
| Phosphor Bronze, Gold plating |
| Viton                         |
| Compliant                     |

| MX     | XXX                | XX          | XX                                                                  | X           | XX                               | X    | XX          |
|--------|--------------------|-------------|---------------------------------------------------------------------|-------------|----------------------------------|------|-------------|
| Series | Material           | Series Size | Body Style                                                          | Orientation | NO. Contacts                     | Code | Termination |
| PXM    | BNI = Brass Nickel | 16          | FB = Flex Body<br>FI = Flex Inline Body<br>RP = Rear Panel Mounting | M<br>F      | 03<br>04<br>05<br>06<br>08<br>12 | A    | SC = Solder |



Typically used for providing **high performance, reliable and robust connections** in commercial and industrial automation applications, these **IP67 rated signal and power connectors** offer a **high degree of protection** against environmental factors such as water, dirt and moisture.

Bulgin's range of M23 Connectors includes field installable male and female connectors as well as front panel mount options from 12- to 19-pole in straight and right angled versions.



## Key features:

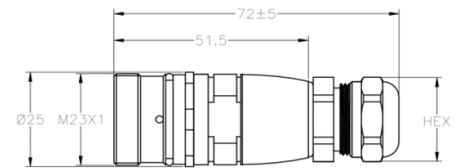
- ⊗ A-Coded
- ⊗ Male and female variants, 12 or 19 poles
- ⊗ Straight and angled configurations
- ⊗ Robust metal housing
- ⊗ IP67 protection rating (when mated)
- ⊗ Voltages up to 250 V and currents up to 8 A

#### M23 Flex Inline Body



PXMBNI23FIM

- Available in 12 and 19 poles
- Solder termination
- Metal Flex Inline Body
- Mates with panel mount connectors



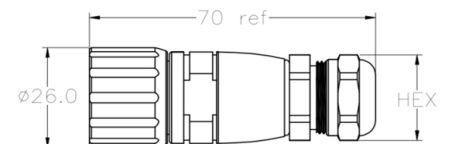
| Part Number      | Poles | Code | Termination    |
|------------------|-------|------|----------------|
| PXMBNI23FIM12ASC | 12    | A    | Screw Terminal |
| PXMBNI23FIM19ASC | 19    | A    | Screw Terminal |

#### M23 Flex Body Female



PXMBNI23FBF

- Available in 12 and 19 poles
- Solder termination
- Metal Flex Body
- Mates with panel mount connectors



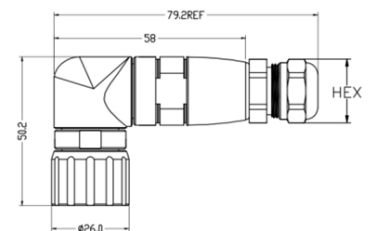
| Part Number      | Poles | Code | Termination    |
|------------------|-------|------|----------------|
| PXMBNI23FBF12ASC | 12    | A    | Screw Terminal |
| PXMBNI23FBF19ASC | 19    | A    | Screw Terminal |

#### M23 Right Angled Female



PXMBNI23RAF

- Available in 12 and 19 poles
- Solder termination
- Metal Right Angle Flex Body
- Mates with panel mount connectors



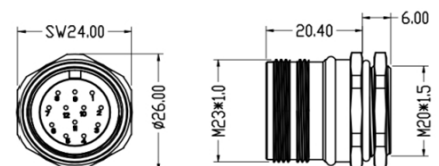
| Part Number      | Poles | Code | Termination    |
|------------------|-------|------|----------------|
| PXMBNI23RAF12ASC | 12    | A    | Screw Terminal |
| PXMBNI23RAF19ASC | 19    | A    | Screw Terminal |

#### M23 Front Panel Mounting Male



PXMBNI23FPM

- Available in 12 and 19 poles
- Solder termination
- Front panel M20
- Mates with Flex Body connectors



| Part Number      | Poles | Code | Termination    |
|------------------|-------|------|----------------|
| PXMBNI23FPM12ASC | 12    | A    | Screw Terminal |
| PXMBNI23FPM19ASC | 19    | A    | Screw Terminal |

### Electrical

|                          |                      |      |
|--------------------------|----------------------|------|
| No. Poles:               | 12                   | 19   |
| Current Rating:          | 8A                   | 8A   |
| Voltage Rating (ac/dc) : | 200V                 | 200V |
| Contact Resistance:      | <3mΩ                 |      |
| Insulation Resistance:   | >100 <sup>3</sup> MΩ |      |
| AC Breakdown Voltage:    |                      |      |
| 12 Pole                  | 1.5KV                |      |
| 19 Pole                  | 1.5KV                |      |
| Operating Temp Range:    | -25°C to 80°C        |      |

### Mechanical:

|                              |                   |
|------------------------------|-------------------|
| Locking Mechanism:           | Screw coupling    |
| Sealing:                     | IP67              |
| Contact Accomodation:        |                   |
| 12 Pole                      | 18 AWG            |
| 19 Pole                      | 17 AWG            |
| Cable Acceptance:            | 6.0 - 8.0mm Dia   |
| Terminations:                | Solder            |
| Mechanical Operation:        | 500 mating cycles |
| Diameter over coupling ring: | 26.0mm            |

### Materials:

|                    |                               |
|--------------------|-------------------------------|
| Body:              | Nickel Plated Brass           |
| Coupling Nut:      | Nickel Plated Brass           |
| Colour:            | Grey                          |
| Pin Contacts:      | Brass, Gold plating           |
| Socket Contacts:   | Phosphor Bronze, Gold plating |
| O Rings & Gaskets: | Viton                         |
| RoHS:              | Compliant                     |

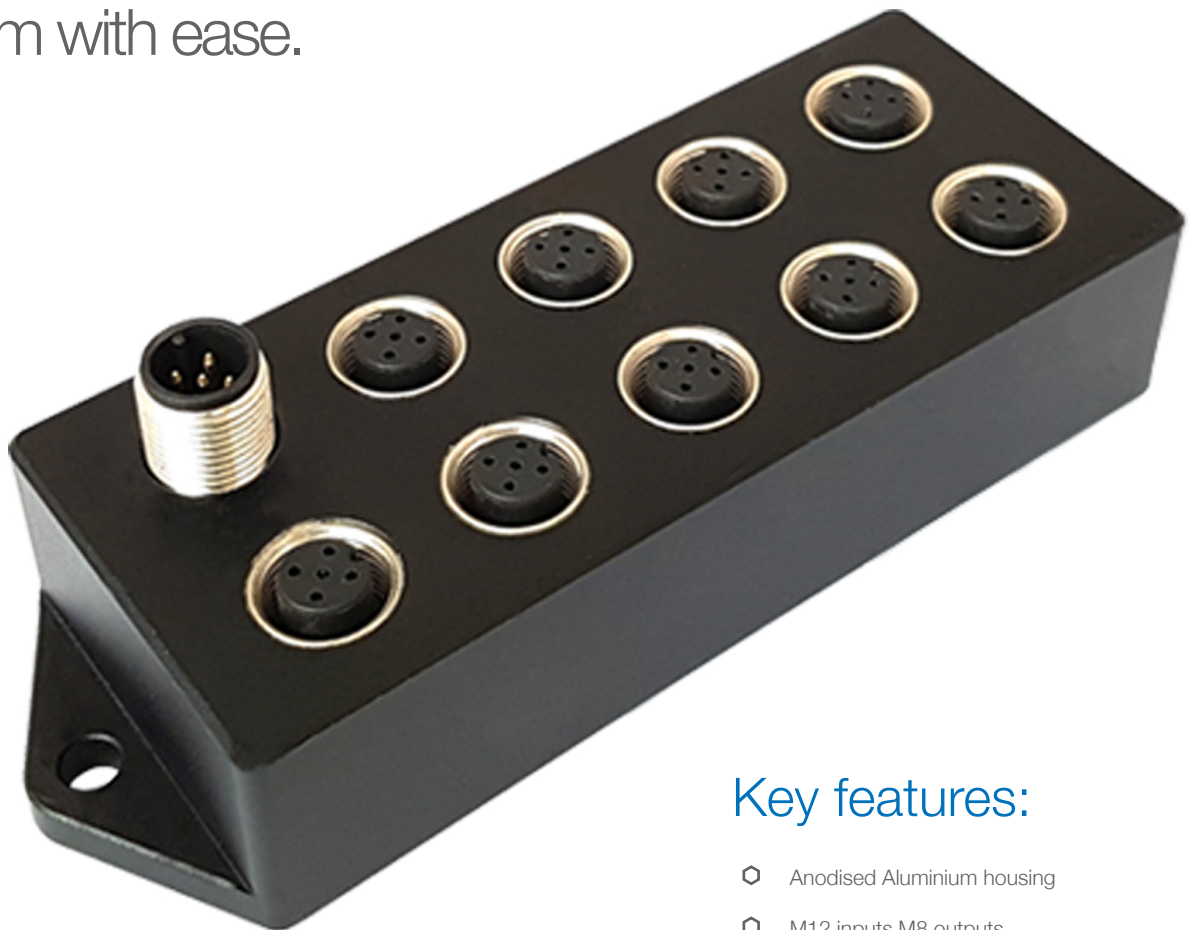
### Panel Mount:

### Flex & Inline Connectors:

|                               |
|-------------------------------|
| Nickel Plated Brass           |
| Nickel Plated Brass           |
| Grey                          |
| Brass, Gold plating           |
| Phosphor Bronze, Gold plating |
| Viton                         |
| Compliant                     |

| <b>MX</b> | <b>XXX</b>         | <b>XX</b>   | <b>XX</b>                 | <b>X</b>    | <b>XX</b>    | <b>X</b> | <b>XX</b>   |
|-----------|--------------------|-------------|---------------------------|-------------|--------------|----------|-------------|
| Series    | Material           | Series Size | Body Style                | Orientation | NO. Contacts | Code     | Termination |
| PXM       | BNI = Brass Nickel | 23          | FB = Flex Body            | M           | 12           | A        | SC = Solder |
| PXP       |                    |             | FI = Flex Inline Body     | F           | 19           |          |             |
|           |                    |             | FP = Front Panel Mounting |             |              |          |             |
|           |                    |             | RA = Right Angle          |             |              |          |             |

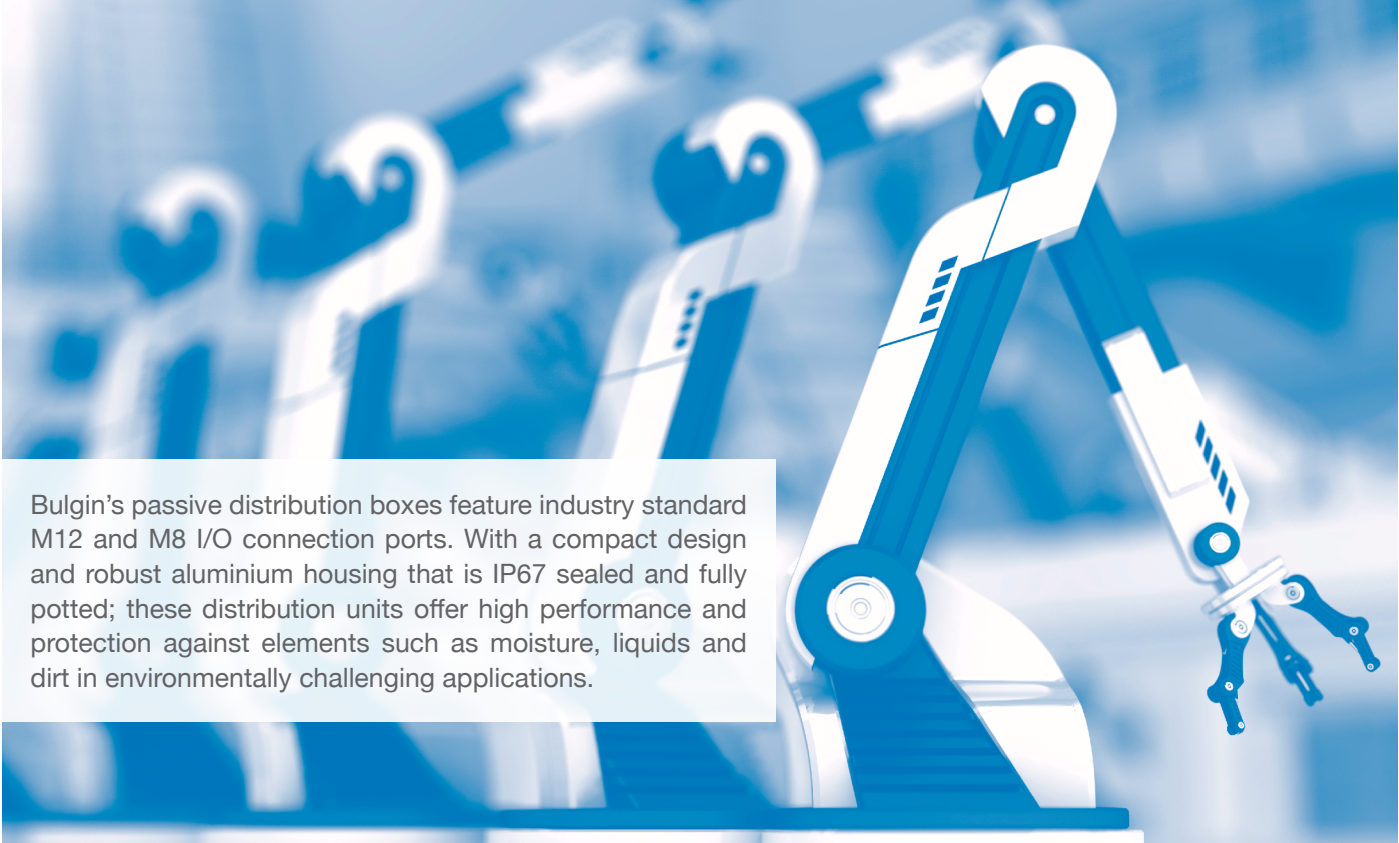
Passive distribution boxes provide a **convenient** and **compact connectivity solution** that can be installed quickly and easily in the field. They offer considerable **cost saving benefits** when compared to hard-wiring I/O connections due to their pre-wired connector slot configurations which enables numerous **sensor** and **actuator signals** to be transmitted back to a control system with ease.



### Key features:

- Anodised Aluminium housing
- M12 inputs M8 outputs
- Available with or without LED indicators
- IP67 rated
- 5, 8, and 9 port configurations
- Operating Temp Range -25°C to 80°C





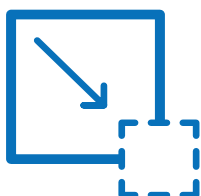
Bulgin's passive distribution boxes feature industry standard M12 and M8 I/O connection ports. With a compact design and robust aluminium housing that is IP67 sealed and fully potted; these distribution units offer high performance and protection against elements such as moisture, liquids and dirt in environmentally challenging applications.

## The Benefits:



### Save Time

With the need to hard wire I/O connections removed and variants coming equipped with identification labels and integrated LEDs, Bulgin's distribution boxes help to save on costs associated with installation, maintenance and repair time by making it easy and quick to troubleshoot connection faults.



### Save Space

Distribution boxes save space in the field as they require less space than more conventional distribution systems due to their compact design. They take up far less space than loose wires and require fewer terminal blocks/boxes, making them the ideal solution for many machine requirements or automation systems.



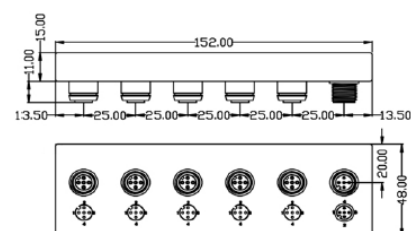
### Save Money

By simplifying the wiring control system and eliminating the need for additional enclosures, distributor boxes can be installed quickly which saves time and costs. Their ability to reduce troubleshooting time also means that downtime can be significantly minimised in manufacturing, food-processing and industrial automation applications.



BOX1M1205MA05

- 5 outputs
- Sealed using sealing caps
- Anodised aluminium body
- Mates with Flex Body and Flex Inline connectors

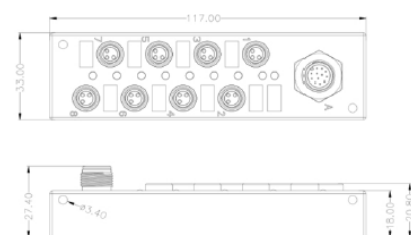


| Part Number        | Input Type | Input Pole Count | Output Type | Output Pole Count | Output Ports |
|--------------------|------------|------------------|-------------|-------------------|--------------|
| BOX1M1205MA05M805F | M12        | 5 Contacts       | M8          | 5 Contacts        | 5 Ports      |



BOX1M1212MA08

- 8 outputs
- Sealed using sealing caps
- Anodised aluminium body
- Mates with Flex Body and Flex Inline connectors

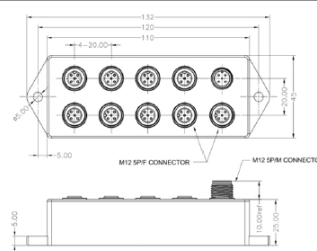


| Part Number        | Input Type | Input Pole Count | Output Type | Output Pole Count | Output Ports |
|--------------------|------------|------------------|-------------|-------------------|--------------|
| BOX1M1212MA08M803F | M12        | 12 Contacts      | M8          | 3 Contacts        | 8 Ports      |



BOX1M1205MA09

- 9 outputs
- Sealed using sealing caps
- Anodised aluminium body
- Mates with Flex Body and Flex Inline connectors



| Part Number        | Input Type | Input Pole Count | Output Type | Output Pole Count | Output Ports |
|--------------------|------------|------------------|-------------|-------------------|--------------|
| BOX1M1205MA09M805F | M12        | 5 Contacts       | M8          | 5 Contacts        | 9 Ports      |



**Specifications:**

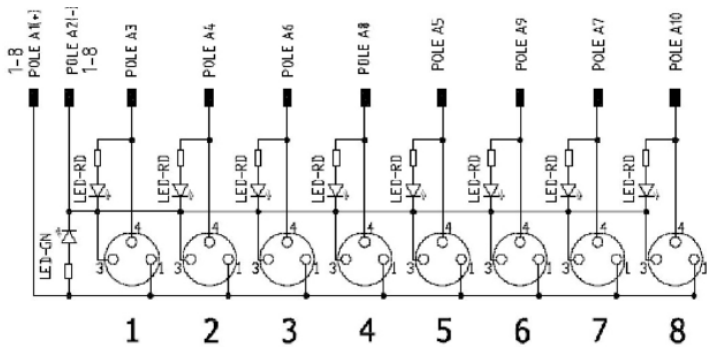
|                       |                |
|-----------------------|----------------|
| Locking mechanism:    | Screw coupling |
| Sealing:              | IP67           |
| Operating Temp Range: | -25°C to 80°C  |

**Materials:**

|                  |                               |
|------------------|-------------------------------|
| Body:            | Anodised Aluminium            |
| Colour:          | Black                         |
| Pin Contacts:    | Brass, Gold plating           |
| Socket Contacts: | Phosphor Bronze, Gold plating |
| RoHS:            | Compliant                     |

**Box & Panel Mount:**

**Wiring diagram for BOX1M1212MA08M803F**



| BOX    | X      | XX           | XX          | X           | X    | XX             | XX            | XX           | X           |
|--------|--------|--------------|-------------|-------------|------|----------------|---------------|--------------|-------------|
| Series | Inputs | Input Series | Input Poles | Orientation | Code | Outputs        | Output Series | Output Poles | Orientation |
| Box    | 1      | M12          | 05<br>12    | M           | A    | 05<br>08<br>09 | M8            | 03<br>05     | F           |

Manufactured from **Stainless Steel**, Bulgin's **extensive range** of vandal resistant security switches are designed with a **high resistance** to wear and tear, corrosion and harsh use in potentially hostile environments such as access control applications.

The front and rear panel mounted versions have three profiles –prominent, domed and low profile – with a choice of switching and IP66 & IP68 front panel sealing which combined together to meet the ergonomic, electrical and environmental demands of switch panel design.

And where the ultimate strength of steel is not needed, there is a brass, chrome plated alternative. The low profile style switches are now also available with a latching, push on - push off, action.

The illuminated versions are available in dot and ring LED indication and a variety of illumination colours including bi-colour LED's. Newer versions also feature LED illumination driven by 6V, 12V & 24V together with rear of panel sealing, these options will add that extra dimension to control panel layouts and functionality.

|                       |         |
|-----------------------|---------|
| Vandal Resistant      | 144-162 |
| Push Button           | 163-173 |
| Voltage Selectors     | 174     |
| Piezo                 | 175-180 |
| 12mm Switches         | 181-186 |
| Rocker Switches       | 187-213 |
| Toggle Switches       | 214-218 |
| Refrigerator Switches | 219-224 |
| Slide Switches        | 225-229 |

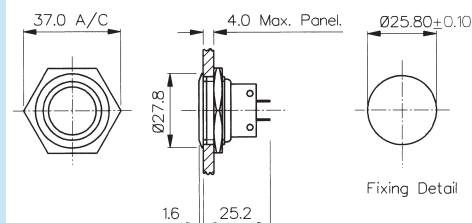


## Front Panel Mounting



MP0027

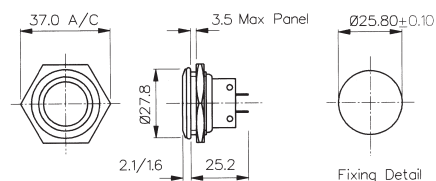
- ⬡ 28mm diameter
- ⬡ S.P.C.O. Microswitch
- ⬡ 5A, 250Vac



## Front Panel Mounting

MP0038  
Sealed to IP66

- ⬡ Front Panel Sealed to IP66
- ⬡ 28mm diameter
- ⬡ S.P.C.O. Microswitch
- ⬡ 5A, 250Vac

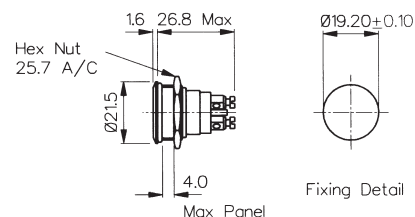


| Specifications                    | MP0027                                  | MP0038                                                                                    |
|-----------------------------------|-----------------------------------------|-------------------------------------------------------------------------------------------|
| Terminations:                     | Solder Tags                             | Solder Tags                                                                               |
| Switching:                        | S.P.C.O. Momentary Action (Microswitch) | S.P.C.O. Momentary Action (Microswitch)                                                   |
| Max. Rating:                      | 5A, 250Vac<br>2A, 28Vdc                 | 5A, 250Vac<br>2A, 28Vdc                                                                   |
| Contact Resistance:               | <10mΩ                                   | <10mΩ                                                                                     |
| Insulation Resistance:            | >10 <sup>3</sup> MΩ                     | >10 <sup>3</sup> MΩ                                                                       |
| Dielectric Strength:              | >2.0kVac                                | >2.0kVac                                                                                  |
| Operating Temp. Range:            | -20°C to +70°C                          | -20°C to +70°C                                                                            |
| Sealing<br>(Front of panel only): |                                         | Protection Classification:<br>IP66 EN60529-1:1992 + A2:2013.<br>(Micro switch not sealed) |
| Operations                        |                                         |                                                                                           |
| Mechanical:                       | 1,000,000 (min)                         | 1,000,000 (min)                                                                           |
| Electrical:                       | 35,000 (min)                            | 35,000 (min)                                                                              |
| Operating Pressure:               | 7.5N (typ)                              | 12.5N (typ)                                                                               |
| Rear Nut Fixing Torque:           | 2.5Nm                                   | 1.13Nm                                                                                    |
| Materials                         |                                         |                                                                                           |
| Mouldings:                        | Glass Filled Nylon                      | Glass Filled Nylon                                                                        |
| Tags/Terminations:                | Brass, Tin Plated                       | Brass, Tin Plated                                                                         |
| Switch Body & Button:             | Stainless Steel                         | Stainless Steel                                                                           |
| Contacts:                         | Fine Silver                             | Fine Silver                                                                               |
| Thread size:                      | 1.0" x 26TPI                            | 1.0" x 26TPI                                                                              |
| RoHS                              | Compliant                               | Compliant                                                                                 |

## Front Panel Mounting


**MP0037**  
 Sealed to IP68

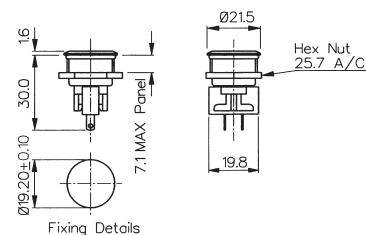
- Front Panel Sealed to IP68
- 21.5mm diameter
- S.P. Push to Make
- 1A, 50Vac/dc
- Industry Standard Size



## Front Panel Mounting


**MP0031**  
 Sealed to IP66

- Front Panel Sealed to IP66
- 21.5mm diameter
- S.P.C.O. Microswitch
- 5A, 250Vac



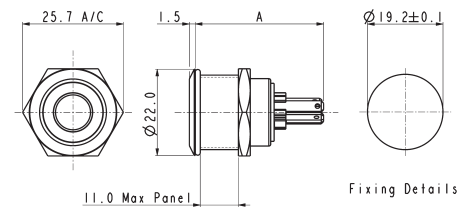
| Specifications                       | MP0037                                                                                | MP0031                                                                                    |
|--------------------------------------|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| Terminations:                        | Screw Terminals                                                                       | Solder Tags                                                                               |
| Switching:                           | S.P. Push to make<br>Momentary action                                                 | S.P.C.O. Momentary Action<br>(Microswitch)                                                |
| Max. Rating:                         | 1A, 50Vac/dc                                                                          | 5A, 250Vac<br>2A, 28Vdc                                                                   |
| Contact Resistance:                  | <10mΩ                                                                                 | <10mΩ                                                                                     |
| Insulation Resistance:               | >10 <sup>5</sup> MΩ                                                                   | >10 <sup>3</sup> MΩ                                                                       |
| Dielectric Strength:                 | >1.0kVac                                                                              | >2.0kVac                                                                                  |
| Operating Temp. Range:               | -20°C to +70°C                                                                        | -20°C to +70°C                                                                            |
| Sealing<br>(Front of panel only):    | Protection Classification: IP68 EN<br>60529:1992+A2:2013<br>(Micro switch not sealed) | Protection Classification:<br>IP66 EN60529-1:1992 + A2:2013.<br>(Micro switch not sealed) |
| IP68 rating<br>10M for 2 weeks test: | Passed                                                                                |                                                                                           |
| Operations                           |                                                                                       |                                                                                           |
| Mechanical:                          | 1,000,000 (min)                                                                       | 1,000,000 (min)                                                                           |
| Electrical:                          | 30,000 (min)                                                                          | 35,000 (min)                                                                              |
| Operating Pressure:                  | 7.5N (typ)                                                                            | 4.7N (typ)                                                                                |
| Rear Nut Fixing Torque:              | 0.57Nm                                                                                | 0.57Nm                                                                                    |
| Materials                            |                                                                                       |                                                                                           |
| Mouldings:                           | Glass Filled Nylon                                                                    | Glass Filled Nylon                                                                        |
| Tags/Terminations:                   | Brass, Silver Plated                                                                  | Brass, Tin Plated                                                                         |
| Switch Body & Button:                | Stainless Steel                                                                       | Stainless Steel                                                                           |
| Contacts:                            | Brass, Silver Plated, Silver                                                          | Fine Silver                                                                               |
| Thread size:                         | 0.747" x 26TPI                                                                        | 0.747" x 26TPI                                                                            |
| <b>RoHS</b>                          | Compliant                                                                             | Compliant                                                                                 |

## Front Panel Mounting



MPI001 - front panel seal to IP66

- Dot illumination
- 22mm diameter
- Single pole push to make
- 50mA, 24Vdc contact rating
- Red, Green, Amber, Blue, White or dual colour illumination
- Bright daylight LEDs
- Independent LED terminals
- Front panel seal to IP66
- Integral supply resistors
- TVS protection



MPI001/TAG/COL A = 32.7  
 MPI001/TERM/COL A = 31.0 MAX.

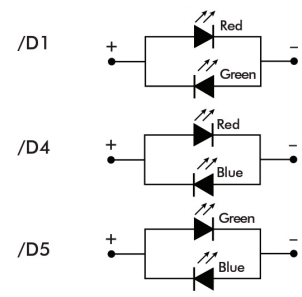
## Specifications

## MPI001/Termination/Colour/Voltage

|                                |                                                                                                                        |         |        |         |        |                 |                |                 |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------|---------|--------|---------|--------|-----------------|----------------|-----------------|
| Illumination style:            | Dot                                                                                                                    |         |        |         |        |                 |                |                 |
| Terminations:                  | /28 (2.8mm tabs),<br>/TERM or /TE (screw terminals)                                                                    |         |        |         |        |                 |                |                 |
| Switching:                     | Single pole, push to make, tactile (momentary action)                                                                  |         |        |         |        |                 |                |                 |
| Max. Switch Rating:            | 50mA, 24Vdc                                                                                                            |         |        |         |        |                 |                |                 |
| LEDs (ratings @ 20mA)          |                                                                                                                        |         |        |         |        |                 |                |                 |
| Part No.                       | /RD                                                                                                                    | /GN     | /AM    | /BL     | /WH    | /D1             | /D4            | /D5             |
| Colours                        | Red                                                                                                                    | Green   | Amber  | Blue    | White  | Red/Green       | Red/Blue       | Green/Blue      |
| Luminous Intensity             | 900mcd                                                                                                                 | 2500mcd | 900mcd | 1500mcd | 900mcd | 2500mcd/5000mcd | 2000mcd/850mcd | 4000mcd/2000mcd |
| Forward Voltage                | 1.85V                                                                                                                  | 3.5V    | 2.3V   | 3.5V    | 3.6V   | 2.05V/3.6V      | 2.0V/3.6V      | 3.6V/3.6V       |
| Forward Current                | 20mA                                                                                                                   | 20mA    | 20mA   | 20mA    | 20mA   | 20mA            | 20mA           | 20mA            |
| Moulding Colour                | Red                                                                                                                    | Green   | Amber  | Blue    | White  | Black           | Black          | Black           |
| Illumination Voltage:          | /no suffix No resistor fitted. <b>An appropriate resistor must be series connected by the user.</b> Voltages as above. |         |        |         |        |                 |                |                 |
|                                | /6                                                                                                                     | 6Vdc    |        |         |        |                 |                |                 |
|                                | /12                                                                                                                    | 12Vdc   |        |         |        |                 |                |                 |
|                                | /24                                                                                                                    | 24Vdc   |        |         |        |                 |                |                 |
| Contact Resistance:            | <100mΩ                                                                                                                 |         |        |         |        |                 |                |                 |
| Insulation Resistance:         | >10 <sup>9</sup> MΩ                                                                                                    |         |        |         |        |                 |                |                 |
| Dielectric Strength:           | Contact to Panel >2.0kV<br>Contact to Contact 1500                                                                     |         |        |         |        |                 |                |                 |
| Operating Temp. Range:         | -30°C to +70°C                                                                                                         |         |        |         |        |                 |                |                 |
| Sealing (Front of panel only): | Protection Classification: IP66 EN60529-1:1992 + A2:2013. (Micro switch not sealed)                                    |         |        |         |        |                 |                |                 |
| Operations                     |                                                                                                                        |         |        |         |        |                 |                |                 |
| Mechanical:                    | 750,000 (min)                                                                                                          |         |        |         |        |                 |                |                 |
| Electrical:                    | 35,000 (min)                                                                                                           |         |        |         |        |                 |                |                 |
| Operating Pressure:            | 12N                                                                                                                    |         |        |         |        |                 |                |                 |
| Rear Nut Fixing Torque:        | 0.57Nm                                                                                                                 |         |        |         |        |                 |                |                 |
| Screw Terminal Torque          | 0.2Nm Max                                                                                                              |         |        |         |        |                 |                |                 |
| Materials                      |                                                                                                                        |         |        |         |        |                 |                |                 |
| Switch assembly:               | UL94V-0 rated Polyamide (Nylon)                                                                                        |         |        |         |        |                 |                |                 |
| Tags:                          | Copper Alloy                                                                                                           |         |        |         |        |                 |                |                 |
| Terminals:                     | Copper Alloy                                                                                                           |         |        |         |        |                 |                |                 |
| Switch Body & Button:          | Stainless Steel                                                                                                        |         |        |         |        |                 |                |                 |
| Lens and Lens Body:            | Polycarbonate                                                                                                          |         |        |         |        |                 |                |                 |
| O ring:                        | Nitrile                                                                                                                |         |        |         |        |                 |                |                 |
| Internal seal:                 | Silicone                                                                                                               |         |        |         |        |                 |                |                 |
| Contact Plate:                 | Gold Plated                                                                                                            |         |        |         |        |                 |                |                 |
| Thread size:                   | 18.97mm x 26TPI                                                                                                        |         |        |         |        |                 |                |                 |

ESD Handling precautions must be taken  
 Compliant

## Dual Colour LED Configuration

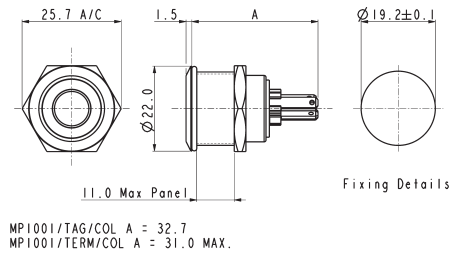


## Front Panel Mounting



MPI002- front panel seal to IP66

- Ring illumination
- 22mm diameter
- Single pole push to make
- 50mA, 24Vdc contact rating
- Red, Green, Amber, Blue, White or dual colour illumination
- Bright daylight LEDs
- Independent LED terminals
- Front panel seal to IP66
- Integral supply resistors
- TVS protection



## Specifications

## MPI002/Termination/Colour/Voltage

|                       |                                                       |         |        |         |        |                 |                |                 |               |  |
|-----------------------|-------------------------------------------------------|---------|--------|---------|--------|-----------------|----------------|-----------------|---------------|--|
| Illumination style:   | Ring                                                  |         |        |         |        |                 |                |                 |               |  |
| Terminations:         | /28 (2.8mm tabs),<br>/TERM or /TE (screw terminals)   |         |        |         |        |                 |                |                 |               |  |
| Switching:            | Single pole, push to make, tactile (momentary action) |         |        |         |        |                 |                |                 |               |  |
| Max. Switch Rating:   | 50mA, 24Vdc                                           |         |        |         |        |                 |                |                 |               |  |
| LEDs (ratings @ 20mA) |                                                       |         |        |         |        |                 |                |                 |               |  |
| Part No.              | /RD                                                   | /GN     | /AM    | /BL     | /WH    | /D1             | /D4            | /D5             | /D6           |  |
| Colours               | Red                                                   | Green   | Amber  | Blue    | White  | Red/Green       | Red/Blue       | Green/Blue      | Green/White   |  |
| Luminous Intensity    | 900mcd                                                | 2500mcd | 900mcd | 1500mcd | 900mcd | 2500mcd/5000mcd | 2000mcd/850mcd | 4000mcd/2000mcd | 178mcd/450mcd |  |
| Forward Voltage       | 1.85V                                                 | 3.5V    | 2.3V   | 3.5V    | 3.6V   | 2.05V/3.6V      | 2.0V/3.6V      | 3.6V/3.6V       | 3.4V/3.2V     |  |
| Forward Current       | 20mA                                                  | 20mA    | 20mA   | 20mA    | 20mA   | 20mA            | 20mA           | 20mA            | 20mA          |  |
| Moulding Colour       | Red                                                   | Green   | Amber  | Blue    | White  | Black           | Black          | Black           | Black         |  |

|                                |                                                                                                                        |       |  |  |  |  |  |  |  |  |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------|-------|--|--|--|--|--|--|--|--|
| Illumination Voltage:          | /no suffix No resistor fitted. <b>An appropriate resistor must be series connected by the user.</b> Voltages as above. |       |  |  |  |  |  |  |  |  |
|                                | /6                                                                                                                     | 6Vdc  |  |  |  |  |  |  |  |  |
|                                | /12                                                                                                                    | 12Vdc |  |  |  |  |  |  |  |  |
|                                | /24                                                                                                                    | 24Vdc |  |  |  |  |  |  |  |  |
| Contact Resistance:            | <100mΩ                                                                                                                 |       |  |  |  |  |  |  |  |  |
| Insulation Resistance:         | >10 <sup>3</sup> MΩ                                                                                                    |       |  |  |  |  |  |  |  |  |
| Dielectric Strength:           | Contact to Panel >2.0kV                                                                                                |       |  |  |  |  |  |  |  |  |
|                                | Contact to Contact 1500                                                                                                |       |  |  |  |  |  |  |  |  |
| Operating Temp. Range:         | -30°C to +70°C                                                                                                         |       |  |  |  |  |  |  |  |  |
| Sealing (Front of panel only): | Protection Classification: IP66 EN60529-1:1992 + A2:2013. (Micro switch not sealed)                                    |       |  |  |  |  |  |  |  |  |
| Operations                     |                                                                                                                        |       |  |  |  |  |  |  |  |  |
| Mechanical:                    | 750,000 (min)                                                                                                          |       |  |  |  |  |  |  |  |  |
| Electrical:                    | 35,000 (min)                                                                                                           |       |  |  |  |  |  |  |  |  |
| Operating Pressure:            | 12N                                                                                                                    |       |  |  |  |  |  |  |  |  |
| Rear Nut Fixing Torque:        | 0.57Nm                                                                                                                 |       |  |  |  |  |  |  |  |  |
| Screw Terminal Torque          | 0.2Nm Max                                                                                                              |       |  |  |  |  |  |  |  |  |

|                       |                                 |  |  |  |  |  |  |  |  |  |
|-----------------------|---------------------------------|--|--|--|--|--|--|--|--|--|
| Materials             |                                 |  |  |  |  |  |  |  |  |  |
| Switch assembly:      | UL94V-0 rated Polyamide (Nylon) |  |  |  |  |  |  |  |  |  |
| Tags:                 | Copper Alloy                    |  |  |  |  |  |  |  |  |  |
| Terminals:            | Copper Alloy                    |  |  |  |  |  |  |  |  |  |
| Switch Body & Button: | Stainless Steel                 |  |  |  |  |  |  |  |  |  |
| Lens and Lens Body:   | Polycarbonate                   |  |  |  |  |  |  |  |  |  |
| O ring:               | Nitrile                         |  |  |  |  |  |  |  |  |  |
| Internal seal:        | Silicone                        |  |  |  |  |  |  |  |  |  |
| Contact Plate:        | Gold Plated                     |  |  |  |  |  |  |  |  |  |
| Thread size:          | 18.97mm x 26TPI                 |  |  |  |  |  |  |  |  |  |

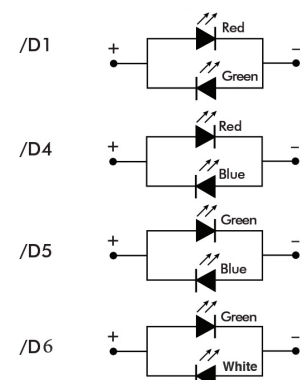
Dual Colour LED Configuration

/D1

+

ESD Handling precautions must be taken  
Compliant

## Dual Colour LED Configuration



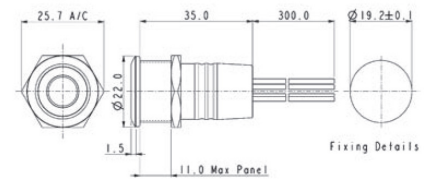


## Rear Panel Sealed - Flying Leads



MPI002/FL/xx/x

- Ring illumination
- 22mm diameter
- Single pole push to make
- 50mA, 24Vdc contact rating
- Red, Green, Amber, Blue, White or dual colour illumination
- Bright daylight LEDs
- Independent LED terminals
- Front panel seal to IP66
- Integral supply resistors
- TVS protection



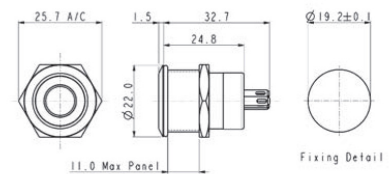
Flying lead colours: LED: red + and black -. Switch contacts: white.

## Rear Panel Sealed - Solder Tags



MPI001/RP/xx/x

- Dot or ring illumination
- 22mm diameter
- Single pole push to make
- 50mA, 24Vdc contact rating
- Red, Green, Amber, Blue & White illumination
- Bright daylight LEDs
- Independent LED terminals
- Front and rear panel seal to IP66
- Solder tag termination
- TVS protection



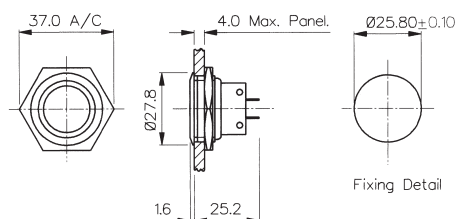
LED terminals marked + and -. Switch terminals unmarked.

| Specifications                 | MPI001/Termination/Colour/Voltage                                                                               |         |        |         |        | MPI002/Termination/Colour/Voltage                                                                               |         |        |         |        |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------|---------|--------|---------|--------|-----------------------------------------------------------------------------------------------------------------|---------|--------|---------|--------|
| Illumination style:            | Dot                                                                                                             |         |        |         |        | Ring                                                                                                            |         |        |         |        |
| Terminations:                  | /FL (Flying leads)<br>/RP (Solder tags)                                                                         |         |        |         |        | /FL (Flying leads)<br>/RP (Solder tags)                                                                         |         |        |         |        |
| Switching:                     | Single pole, push to make, tactile (momentary action)                                                           |         |        |         |        | Single pole, push to make, tactile (momentary action)                                                           |         |        |         |        |
| Max. Switch Rating:            | 50mA, 24Vdc                                                                                                     |         |        |         |        | 50mA, 24Vdc                                                                                                     |         |        |         |        |
| LEDs (ratings @ 20mA)          |                                                                                                                 |         |        |         |        |                                                                                                                 |         |        |         |        |
| Part No.                       | /RD                                                                                                             | /GN     | /AM    | /BL     | /WH    | /RD                                                                                                             | /GN     | /AM    | /BL     | /WH    |
| Colours                        | Red                                                                                                             | Green   | Amber  | Blue    | White  | Red                                                                                                             | Green   | Amber  | Blue    | White  |
| Luminous Intensity             | 900mcd                                                                                                          | 2500mcd | 900mcd | 1500mcd | 900mcd | 900mcd                                                                                                          | 2500mcd | 900mcd | 1500mcd | 900mcd |
| Forward Voltage                | 1.85V                                                                                                           | 3.5V    | 2.3V   | 3.5V    | 3.6V   | 1.85V                                                                                                           | 3.5V    | 2.3V   | 3.5V    | 3.6V   |
| Forward Current                | 20mA                                                                                                            | 20mA    | 20mA   | 20mA    | 20mA   | 20mA                                                                                                            | 20mA    | 20mA   | 20mA    | 20mA   |
| Moulding Colour                | Red                                                                                                             | Green   | Amber  | Blue    | White  | Red                                                                                                             | Green   | Amber  | Blue    | White  |
| Illumination Voltage:          | /no suffix No resistor fitted. An appropriate resistor must be series connected by the user. Voltages as above. |         |        |         |        | /no suffix No resistor fitted. An appropriate resistor must be series connected by the user. Voltages as above. |         |        |         |        |
|                                | /6                                                                                                              | 6Vdc    |        |         |        | /6                                                                                                              | 6Vdc    |        |         |        |
|                                | /12                                                                                                             | 12Vdc   |        |         |        | /12                                                                                                             | 12Vdc   |        |         |        |
|                                | /24                                                                                                             | 24Vdc   |        |         |        | /24                                                                                                             | 24Vdc   |        |         |        |
| Contact Resistance:            | <100mΩ                                                                                                          |         |        |         |        | <100mΩ                                                                                                          |         |        |         |        |
| Insulation Resistance:         | >10 <sup>9</sup> MΩ                                                                                             |         |        |         |        | >10 <sup>9</sup> MΩ                                                                                             |         |        |         |        |
| Dielectric Strength:           | Contact to Panel >2.0kV<br>Contact to Contact 1500                                                              |         |        |         |        | Contact to Panel >2.0kV<br>Contact to Contact 1500                                                              |         |        |         |        |
| Operating Temp. Range:         | -30°C to +70°C                                                                                                  |         |        |         |        | -30°C to +70°C                                                                                                  |         |        |         |        |
| Sealing (Front of panel only): | Protection Classification: IP66 EN60529-1:1992 + A2:2013.<br>(Micro switch not sealed)                          |         |        |         |        | Protection Classification: IP66 EN60529-1:1992 + A2:2013.<br>(Micro switch not sealed)                          |         |        |         |        |
| Operations                     |                                                                                                                 |         |        |         |        |                                                                                                                 |         |        |         |        |
| Mechanical:                    | 750,000 (min)                                                                                                   |         |        |         |        | 750,000 (min)                                                                                                   |         |        |         |        |
| Electrical:                    | 35,000 (min)                                                                                                    |         |        |         |        | 35,000 (min)                                                                                                    |         |        |         |        |
| Operating Pressure:            | 12N                                                                                                             |         |        |         |        | 12N                                                                                                             |         |        |         |        |
| Rear Nut Fixing Torque:        | 0.57Nm                                                                                                          |         |        |         |        | 0.57Nm                                                                                                          |         |        |         |        |
| Materials                      |                                                                                                                 |         |        |         |        |                                                                                                                 |         |        |         |        |
| Switch assembly:               | UL94V-0 rated Polyamide (Nylon)                                                                                 |         |        |         |        | UL94V-0 rated Polyamide (Nylon)                                                                                 |         |        |         |        |
| Tags:                          | Copper Alloy                                                                                                    |         |        |         |        | Copper Alloy                                                                                                    |         |        |         |        |
| Terminals:                     | Copper Alloy                                                                                                    |         |        |         |        | Copper Alloy                                                                                                    |         |        |         |        |
| Switch Body & Button:          | Stainless Steel                                                                                                 |         |        |         |        | Stainless Steel                                                                                                 |         |        |         |        |
| Lens and Lens Body:            | Polycarbonate                                                                                                   |         |        |         |        | Polycarbonate                                                                                                   |         |        |         |        |
| O ring:                        | Nitrile                                                                                                         |         |        |         |        | Nitrile                                                                                                         |         |        |         |        |
| Internal seal:                 | Silicone                                                                                                        |         |        |         |        | Silicone                                                                                                        |         |        |         |        |
| Contact Plate:                 | Gold Plated                                                                                                     |         |        |         |        | Gold Plated                                                                                                     |         |        |         |        |
| Thread size:                   | 18.97mm x 26TPI                                                                                                 |         |        |         |        | 18.97mm x 26TPI                                                                                                 |         |        |         |        |
|                                | ESD Handling precautions must be taken                                                                          |         |        |         |        | ESD Handling precautions must be taken                                                                          |         |        |         |        |
|                                | Compliant                                                                                                       |         |        |         |        | Compliant                                                                                                       |         |        |         |        |

## Front Panel Mounting


**MPB038**  
 Sealed to IP66

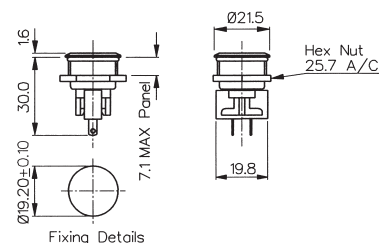
- Front Panel Sealed to IP66
- 28mm diameter
- S.P.C.O. Microswitch
- 5A, 250Vac



## Front Panel Mounting


**MPB031**  
 Sealed to IP66

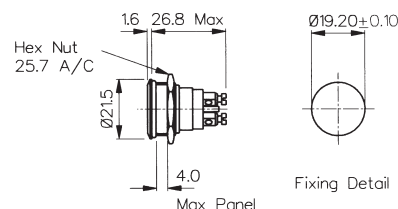
- Front Panel Sealed to IP66
- 21mm diameter
- S.P.C.O. Microswitch
- 5A, 250Vac



## Front Panel Mounting


**MPB037**  
 Sealed to IP68

- Front Panel Sealed to IP68
- 21.5mm diameter
- S.P. Push to Make
- 1A, 50Vac/dc



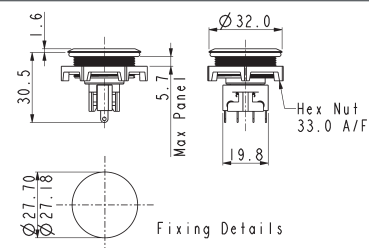
| Specifications                    | MPB038                                                                                    | MPB031                                                                                    | MPB037                                                                                                      |
|-----------------------------------|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| Terminations:                     | Solder Tags                                                                               | Solder Tags                                                                               | Screw Terminals                                                                                             |
| Switching:                        | S.P.C.O. Momentary Action (Microswitch)                                                   | S.P.C.O. Momentary Action (Microswitch)                                                   | S.P. Push to make Momentary action                                                                          |
| Max. Rating:                      | 5A, 250Vac.<br>2A, 28Vdc                                                                  | 5A, 250Vac.<br>2A, 28Vdc                                                                  | 1A, 50Vac/dc                                                                                                |
| Contact Resistance:               | <10mΩ                                                                                     | <10mΩ                                                                                     | <10mΩ                                                                                                       |
| Insulation Resistance:            | >10 <sup>3</sup> MΩ                                                                       | >10 <sup>3</sup> MΩ                                                                       | >10 <sup>5</sup> MΩ                                                                                         |
| Dielectric Strength:              | >2.0kVac                                                                                  | >2.0kVac                                                                                  | >1.0kVac                                                                                                    |
| Operating Temp. Range:            | -20°C to +70°C                                                                            | -20°C to +70°C                                                                            | -20°C to +70°C                                                                                              |
| Sealing<br>(Front of panel only): | Protection Classification:<br>IP66 EN60529-1:1992 + A2:2013.<br>(Micro switch not sealed) | Protection Classification:<br>IP66 EN60529-1:1992 + A2:2013.<br>(Micro switch not sealed) | Protection Classification:<br>IP68 EN60529-1:1992 + A2:2013.<br>(Micro switch not sealed) (10m for 2 weeks) |
| Operations                        |                                                                                           |                                                                                           |                                                                                                             |
| Mechanical:                       | 1,000,000 (min)                                                                           | 1,000,000 (min)                                                                           | 1,000,000 (min)                                                                                             |
| Electrical:                       | 35,000 (min)                                                                              | 35,000 (min)                                                                              | 30,000 (min)                                                                                                |
| Operating Pressure:               | 12.5N (typ)                                                                               | 4.7N (typ)                                                                                | 7.5N (typ)                                                                                                  |
| Rear Nut Fixing Torque:           | 1.13Nm                                                                                    | 0.57Nm                                                                                    | 0.57Nm                                                                                                      |
| Materials                         |                                                                                           |                                                                                           |                                                                                                             |
| Mouldings:                        | Glass Filled Nylon                                                                        | Glass Filled Nylon                                                                        | Glass Filled Nylon                                                                                          |
| Tags/Terminations:                | Brass, Tin Plated                                                                         | Brass, Tin Plated                                                                         | Brass, Tin Plated                                                                                           |
| Switch Body & Button:             | Brass                                                                                     | Brass                                                                                     | Brass                                                                                                       |
| Contacts:                         | Fine Silver                                                                               | Fine Silver                                                                               | Brass, Silver Plated, Silver                                                                                |
| Thread size:                      | 1.0" x 26TPI                                                                              | 0.747" x 26TPI                                                                            | 0.747" x 26TPI                                                                                              |
| <b>RoHS</b>                       | Compliant                                                                                 | Compliant                                                                                 | Compliant                                                                                                   |

## Front Panel Mounting - Low Profile



MP0050

- Front Panel Sealed to IP68
- Flush button
- 32.0mm diameter
- S.P.C.O. switching
- Momentary action
- 5A, 250Vac

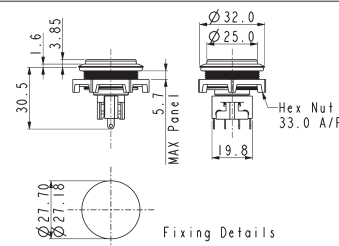


## Front Panel Mounting - Protruding Profile



MP0050/2

- Front Panel Sealed to IP68
- Protruding button
- 32.0mm diameter
- S.P.C.O. switching
- Momentary action
- 5A, 250Vac



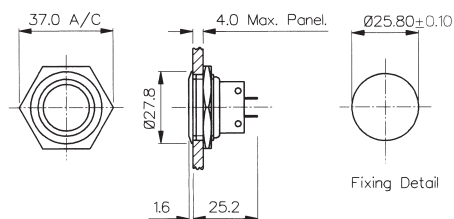
| Specifications                    | MP0050                                                                                    | MP0050/2                                                                                  |
|-----------------------------------|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| Terminations:                     | Solder Tags                                                                               | Solder Tags                                                                               |
| Switching:                        | S.P.C.O. Momentary Action (Microswitch)                                                   | S.P.C.O. Momentary Action (Microswitch)                                                   |
| Max. Rating:                      | 5A, 250Vac.<br>2A, 28Vdc                                                                  | 5A, 250Vac.<br>2A, 28Vdc                                                                  |
| Contact Resistance:               | <10mΩ                                                                                     | <10mΩ                                                                                     |
| Insulation Resistance:            | >10 <sup>3</sup> MΩ                                                                       | >10 <sup>3</sup> MΩ                                                                       |
| Dielectric Strength:              | >2.0kVac                                                                                  | >2.0kVac                                                                                  |
| Operating Temp. Range:            | -20°C to +70°C                                                                            | -20°C to +70°C                                                                            |
| Sealing<br>(Front of panel only): | Protection Classification:<br>IP66 EN60529-1:1992 + A2:2013.<br>(Micro switch not sealed) | Protection Classification:<br>IP66 EN60529-1:1992 + A2:2013.<br>(Micro switch not sealed) |
| Operations                        |                                                                                           |                                                                                           |
| Mechanical:                       | 1,000,000 (min)                                                                           | 1,000,000 (min)                                                                           |
| Electrical:                       | 35,000 (min)                                                                              | 35,000 (min)                                                                              |
| Operating Pressure:               | 4.7Nm                                                                                     | 4.7N (typ)                                                                                |
| Rear Nut Fixing Torque:           | 0.57Nm                                                                                    | 0.57Nm                                                                                    |
| Materials                         |                                                                                           |                                                                                           |
| Mouldings:                        | Glass Filled Nylon                                                                        | Glass Filled Nylon                                                                        |
| Tags/Terminations:                | Brass, Tin Plated                                                                         | Brass, Tin Plated                                                                         |
| Switch Body & Button:             | Stainless Steel                                                                           | Stainless Steel                                                                           |
| Contacts:                         | Fine Silver                                                                               | Fine Silver                                                                               |
| Thread size:                      | M27 x 1.0-6H                                                                              | M27 x 1.0-6H                                                                              |
| RoHS                              | Compliant                                                                                 | Compliant                                                                                 |

## Front Panel Mounting



MP0027/3

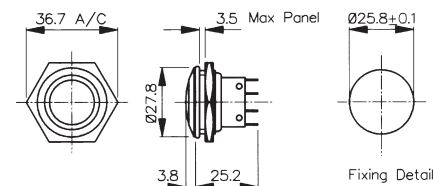
- 28mm diameter
- Domed Profile
- S.P.C.O. Microswitch
- 5A, 250Vac



## Front Panel Mounting

MP0038/3  
Sealed to IP66

- Front Panel Sealed to IP66
- 28mm diameter
- Domed Profile
- S.P.C.O. Microswitch
- 5A, 250Vac

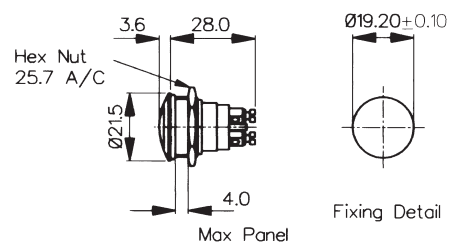


| Specifications                    | MP0027/3                                | MP0038/3                                                                                  |
|-----------------------------------|-----------------------------------------|-------------------------------------------------------------------------------------------|
| Terminations:                     | Solder Tags                             | Solder Tags                                                                               |
| Switching:                        | S.P.C.O. Momentary Action (Microswitch) | S.P.C.O. Momentary Action (Microswitch)                                                   |
| Max. Rating:                      | 5A, 250Vac.<br>2A, 28Vdc                | 5A, 250Vac.<br>2A, 28Vdc                                                                  |
| Contact Resistance:               | <10mΩ                                   | <10mΩ                                                                                     |
| Insulation Resistance:            | >10 <sup>3</sup> MΩ                     | >10 <sup>3</sup> MΩ                                                                       |
| Dielectric Strength:              | >2.0kVac                                | >2.0kVac                                                                                  |
| Operating Temp. Range:            | -20°C to +70°C                          | -20°C to +70°C                                                                            |
| Sealing<br>(Front of panel only): |                                         | Protection Classification:<br>IP66 EN60529-1:1992 + A2:2013.<br>(Micro switch not sealed) |
| Operations                        |                                         |                                                                                           |
| Mechanical:                       | 1,000,000 (min)                         | 1,000,000 (min)                                                                           |
| Electrical:                       | 35,000 (min)                            | 35,000 (min)                                                                              |
| Operating Pressure:               | 7.5N (typ)                              | 12.5N (typ)                                                                               |
| Rear Nut Fixing Torque:           | 2.5Nm                                   | 1.13Nm                                                                                    |
| Materials                         |                                         |                                                                                           |
| Mouldings:                        | Glass Filled Nylon                      | Glass Filled Nylon                                                                        |
| Tags/Terminations:                | Brass, Tin Plated                       | Brass, Tin Plated                                                                         |
| Switch Body & Button:             | Stainless Steel                         | Stainless Steel                                                                           |
| Contacts:                         | Fine Silver                             | Fine Silver                                                                               |
| Thread size:                      | 1.0" x 26TPI                            | 0.747" x 26TPI                                                                            |
| <b>RoHS</b>                       | Compliant                               | Compliant                                                                                 |

## Front Panel Mounting

MP0037/3  
Sealed to IP68

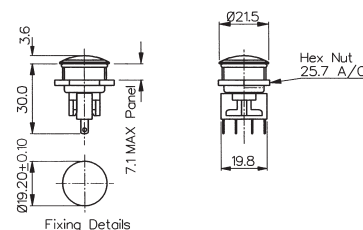
- Front Panel Sealed to IP68
- 21.5mm diameter
- Domed Profile
- S.P. Push to Make
- 1A, 50Vac/dc



## Front Panel Mounting

MP0031/3  
Sealed to IP66

- Front Panel Sealed to IP66
- 21.5mm diameter
- Domed Profile
- S.P.C.O. Microswitch
- 5A, 250Vac



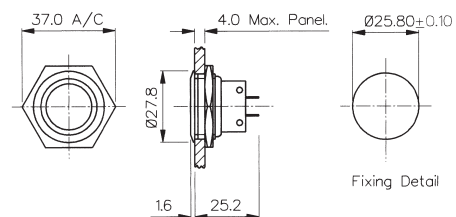
| Specifications                    | MP0037/3                                                                                                    | MP0031/3                                                                                  |
|-----------------------------------|-------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| Terminations:                     | Screw Terminals                                                                                             | Solder Tags                                                                               |
| Switching:                        | S.P. Push to make<br>Momentary action                                                                       | S.P.C.O. Momentary Action<br>(Microswitch)                                                |
| Max. Rating:                      | 1A, 50Vac/dc                                                                                                | 5A, 250Vac.<br>2A, 28Vdc                                                                  |
| Contact Resistance:               | <10mΩ                                                                                                       | <10mΩ                                                                                     |
| Insulation Resistance:            | >10 <sup>5</sup> MΩ                                                                                         | >10 <sup>3</sup> MΩ                                                                       |
| Dielectric Strength:              | >1.0kVac                                                                                                    | >2.0kVac                                                                                  |
| Operating Temp. Range:            | -20°C to +70°C                                                                                              | -20°C to +70°C                                                                            |
| Sealing<br>(Front of panel only): | Protection Classification:<br>IP68 EN60529-1:1992 + A2:2013.<br>(Micro switch not sealed) (10m for 2 weeks) | Protection Classification:<br>IP66 EN60529-1:1992 + A2:2013.<br>(Micro switch not sealed) |
| Operations                        |                                                                                                             |                                                                                           |
| Mechanical:                       | 1,000,000 (min)                                                                                             | 1,000,000 (min)                                                                           |
| Electrical:                       | 35,000 (min)                                                                                                | 35,000 (min)                                                                              |
| Operating Pressure:               | 7.5N (typ)                                                                                                  | 4.7N (typ)                                                                                |
| Rear Nut Fixing Torque:           | 2.5Nm                                                                                                       | 0.57Nm                                                                                    |
| Materials                         |                                                                                                             |                                                                                           |
| Mouldings:                        | Glass Filled Nylon                                                                                          | Glass Filled Nylon                                                                        |
| Tags/Terminations:                | Brass, Tin Plated                                                                                           | Brass, Tin Plated                                                                         |
| Switch Body & Button:             | Stainless Steel                                                                                             | Stainless Steel                                                                           |
| Contacts:                         | Brass, Silver Plated, Silver                                                                                | Fine Silver                                                                               |
| Thread size:                      | 0.747" x 26TPI                                                                                              | 0.747" x 26TPI                                                                            |
| RoHS                              | Compliant                                                                                                   | Compliant                                                                                 |

## Front Panel Mounting



MP0027/2

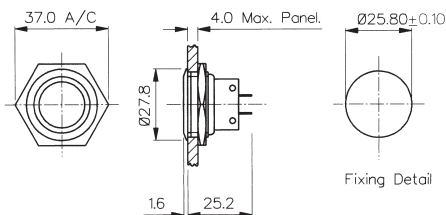
- 28mm diameter
- Prominent Button
- S.P.C.O. Microswitch
- 5A, 250Vac



## Front Panel Mounting

MP0038/2  
Sealed to IP66

- Front Panel Sealed to IP66
- 28mm diameter
- Prominent Button
- S.P.C.O. Microswitch
- 5A, 250Vac



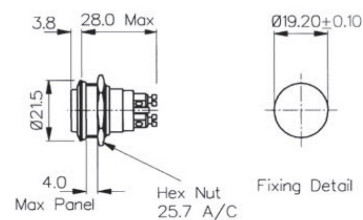
| Specifications                    | MP0027/2                                | MP0038/2                                                                                  |
|-----------------------------------|-----------------------------------------|-------------------------------------------------------------------------------------------|
| Terminations:                     | Solder Tags                             | Solder Tags                                                                               |
| Switching:                        | S.P.C.O. Momentary Action (Microswitch) | S.P.C.O. Momentary Action (Microswitch)                                                   |
| Max. Rating:                      | 5A, 250Vac<br>2A, 28Vdc                 | 5A, 250Vac.<br>2A, 28Vdc                                                                  |
| Contact Resistance:               | <10mΩ                                   | <10mΩ                                                                                     |
| Insulation Resistance:            | >10 <sup>3</sup> MΩ                     | >10 <sup>3</sup> MΩ                                                                       |
| Dielectric Strength:              | >2.0kVac                                | >2.0kVac                                                                                  |
| Operating Temp. Range:            | -20°C to +70°C                          | -20°C to +70°C                                                                            |
| Sealing<br>(Front of panel only): |                                         | Protection Classification:<br>IP66 EN60529-1:1992 + A2:2013.<br>(Micro switch not sealed) |
| Operations                        |                                         |                                                                                           |
| Mechanical:                       | 1,000,000 (min)                         | 1,000,000 (min)                                                                           |
| Electrical:                       | 35,000 (min)                            | 35,000 (min)                                                                              |
| Operating Pressure:               | 7.5N (typ)                              | 12.5N (typ)                                                                               |
| Rear Nut Fixing Torque:           | 2.5Nm                                   | 1.13Nm                                                                                    |
| Materials                         |                                         |                                                                                           |
| Mouldings:                        | Glass Filled Nylon                      | Glass Filled Nylon                                                                        |
| Tags/Terminations:                | Brass, Tin Plated                       | Brass, Tin Plated                                                                         |
| Switch Body & Button:             | Stainless Steel                         | Stainless Steel                                                                           |
| Contacts:                         | Fine Silver                             | Fine Silver                                                                               |
| Thread size:                      | 1.0" x 26TPI                            | 1.0" x 26TPI                                                                              |
| RoHS                              | Compliant                               | Compliant                                                                                 |



## Front Panel Mounting


 MP0037/2  
 Sealed to IP68

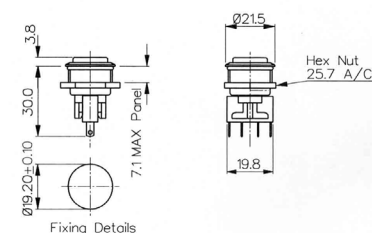
- Front Panel Sealed to IP68
- 21.5mm diameter
- Prominent Button
- S.P. Push to Make
- 1A, 50Vac/dc



## Front Panel Mounting


 MP0031/2  
 Sealed to IP66

- Front Panel Sealed to IP66
- 21.5mm diameter
- Prominent Button
- S.P.C.O. Microswitch
- 5A, 250Vac



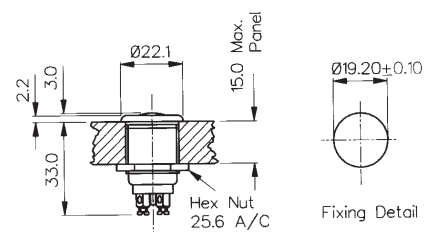
| Specifications                    | MP0037/2                                                                                                    | MP0031/2                                                                                  |
|-----------------------------------|-------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| Terminations:                     | Screw Terminals                                                                                             | Solder Tags                                                                               |
| Switching:                        | S.P. Push to make<br>Slow momentary action                                                                  | S.P.C.O. Momentary Action<br>(Microswitch)                                                |
| Max. Rating:                      | 1A, 50Vac/dc                                                                                                | 5A, 250Vac.<br>2A, 28Vdc                                                                  |
| Contact Resistance:               | <10mΩ                                                                                                       | <10mΩ                                                                                     |
| Insulation Resistance:            | >10 <sup>5</sup> MΩ                                                                                         | >10 <sup>3</sup> MΩ                                                                       |
| Dielectric Strength:              | >1.0kVac                                                                                                    | >2.0kVac                                                                                  |
| Operating Temp. Range:            | -20°C to +70°C                                                                                              | -20°C to +70°C                                                                            |
| Sealing<br>(Front of panel only): | Protection Classification:<br>IP68 EN60529-1:1992 + A2:2013.<br>(Micro switch not sealed) (10m for 2 weeks) | Protection Classification:<br>IP66 EN60529-1:1992 + A2:2013.<br>(Micro switch not sealed) |
| Operations                        |                                                                                                             |                                                                                           |
| Mechanical:                       | 1,000,000 (min)                                                                                             | 1,000,000 (min)                                                                           |
| Electrical:                       | 35,000 (min)                                                                                                | 35,000 (min)                                                                              |
| Operating Pressure:               | 7.5N (typ)                                                                                                  | 4.7N (typ)                                                                                |
| Rear Nut Fixing Torque:           | 0.57Nm                                                                                                      | 0.57Nm                                                                                    |
| Materials                         |                                                                                                             |                                                                                           |
| Mouldings:                        | Glass Filled Nylon                                                                                          | Glass Filled Nylon                                                                        |
| Tags/Terminations:                | Brass, Tin Plated                                                                                           | Brass, Tin Plated                                                                         |
| Switch Body & Button:             | Stainless Steel                                                                                             | Stainless Steel                                                                           |
| Contacts:                         | Brass, Silver Plated, Silver                                                                                | Fine Silver                                                                               |
| Thread size:                      | 0.747" x 26TPI                                                                                              | 0.747" x 26TPI                                                                            |
| RoHS                              | Compliant                                                                                                   | Compliant                                                                                 |

Front Panel Mounting



MP0013  
MP0033

- Proud Fitting
- 22mm diameter
- S.P. Push to Make
- 1A, 50V
- Brass, Chrome Plated Body, Stainless Steel Button
- MP0033 Internally Sealed

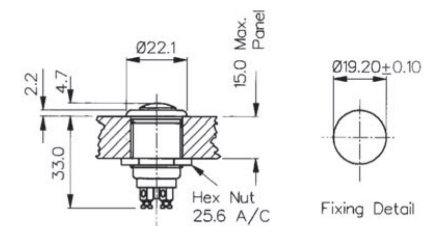


Front Panel Mounting



MP0013/2  
MP0033/2

- Prominent Button
- 22mm diameter
- S.P. Push to Make
- 1A, 50V
- Brass, Chrome Plated Body, Stainless Steel Button
- MP0033/2 Internally Sealed



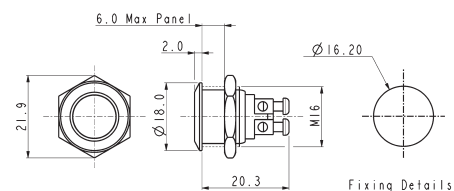
| Specifications                    | MP0013, MP0033                                                       | MP0013/2, MP0033/2                                                     |
|-----------------------------------|----------------------------------------------------------------------|------------------------------------------------------------------------|
| Terminations:                     | Screw Terminals                                                      | Screw Terminals                                                        |
| Switching:                        | S.P. Push to make<br>Slow momentary action                           | S.P. Push to make<br>Slow momentary action                             |
| Max. Rating:                      | 1A, 50Vac/dc                                                         | 1A, 50Vac/dc                                                           |
| Contact Resistance:               | <15mΩ                                                                | <15mΩ                                                                  |
| Insulation Resistance:            | >10 <sup>4</sup> MΩ                                                  | >10 <sup>4</sup> MΩ                                                    |
| Dielectric Strength:              | >2.5kVac                                                             | >2.5kVac                                                               |
| Operating Temp. Range:            | -20°C to +85°C                                                       | -20°C to +85°C                                                         |
| Sealing<br>(Front of panel only): | MP0033 only - internally sealed<br>against ingress of water and dust | MP0033/2 only - internally sealed<br>against ingress of water and dust |
| Materials                         |                                                                      |                                                                        |
| Mouldings:                        | Glass Filled Nylon                                                   | Glass Filled Nylon                                                     |
| Tags/Terminations:                | Brass, Silver Plated                                                 | Brass, Silver Plated                                                   |
| Switch Body & Button:             | Body: Brass, Chrome Plated<br>Button: Stainless Steel                | Body: Brass, Chrome Plated<br>Button: Stainless Steel                  |
| Contacts:                         | Copper, Silver Plated                                                | Copper, Silver Plated                                                  |
| Thread Size:                      | 0.747" x 26TPI                                                       | 0.747" x 26TPI                                                         |
| RoHS                              | Compliant                                                            | Compliant                                                              |

#### Flush Profile



MP0042/1

- 18mm bezel diameter
- 16mm panel hole
- S.P. Push to make
- Polished finish
- 2A, 48Vdc

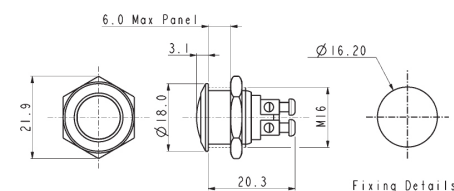


#### Domed Profile



MP0042/2

- 18mm bezel diameter
- 16mm panel hole
- S.P. Push to make
- Polished finish
- 2A, 48Vdc

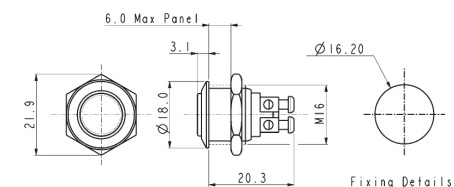


#### Prominent Button



MP0042/3

- 18mm bezel diameter
- 16mm panel hole
- S.P. Push to make
- Polished finish
- 2A, 48Vdc



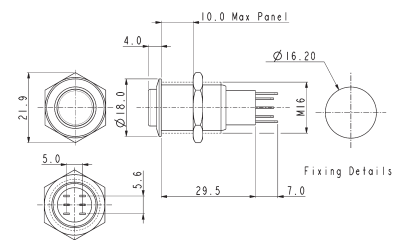
| Specifications          | MP0042/1                            | MP0042/2                            | MP0042/3                            |
|-------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Terminations:           | Screw Terminals                     | Screw Terminals                     | Screw Terminals                     |
| Switching:              | S.P. Push to make                   | S.P. Push to make                   | S.P. Push to make                   |
| Max. Rating:            | 2A, 48Vdc                           | 2A, 48Vdc                           | 2A, 48Vdc                           |
| Contact Resistance:     | 50mΩ at 1A, 2V                      | 50mΩ at 1A, 2V                      | 50mΩ at 1A, 2V                      |
| Insulation Resistance:  | >10 <sup>3</sup> MΩ @ 500Vdc        | >10 <sup>3</sup> MΩ @ 500Vdc        | >10 <sup>3</sup> MΩ @ 500Vdc        |
| Dielectric Strength:    | >2.0kVac                            | >2.0kVac                            | >2.0kVac                            |
| Operating Temp. Range:  | -20°C to +55°C                      | -20°C to +55°C                      | -20°C to +55°C                      |
| Operations              |                                     |                                     |                                     |
| Mechanical:             | 1,000,000 (min)                     | 1,000,000 (min)                     | 1,000,000 (min)                     |
| Electrical:             | 100,000 (min)                       | 100,000 (min)                       | 100,000 (min)                       |
| Rear Nut Fixing Torque: | 12Nm                                | 12Nm                                | 12Nm                                |
| Materials               |                                     |                                     |                                     |
| Mouldings:              | Nylon                               | Nylon                               | Nylon                               |
| Tags/Terminations:      | Brass, Silver Plated                | Brass, Silver Plated                | Brass, Silver Plated                |
| Switch Body & Button:   | Stainless Steel (Polished)          | Stainless Steel (Polished)          | Stainless Steel (Polished)          |
| Contacts:               | Silver                              | Silver                              | Silver                              |
| Thread size:            | Gold Plated Brass version available | Gold Plated Brass version available | Gold Plated Brass version available |
| Sealing:                | IP65                                | IP65                                | IP65                                |
| Impact Rating:          | IK08                                | IK08                                | IK08                                |
| RoHS                    | Compliant                           | Compliant                           | Compliant                           |

Low Profile



MP0045/1D

- 18mm bezel diameter
- 16mm fixing hole diameter
- D.P.C.O
- 250V ac

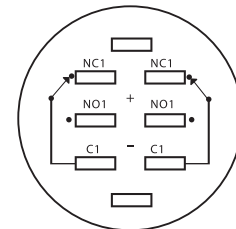
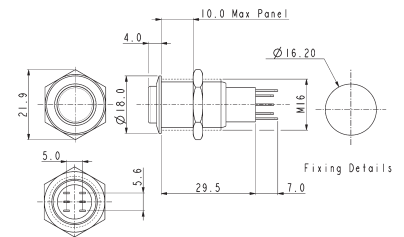


Prominent Button



MP0045/3D

- 18mm bezel diameter
- 16mm fixing hole diameter
- D.P.C.O
- 250V ac



Contact Layout

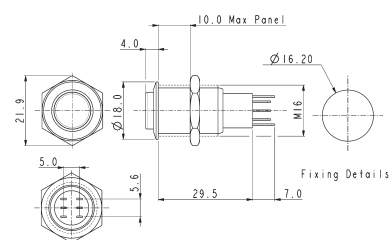
| Specifications          | MP0045/1D0NN000                                             | MP0045/3D0NN000                                             |
|-------------------------|-------------------------------------------------------------|-------------------------------------------------------------|
| Terminations:           | Solder tags                                                 | Solder tags                                                 |
| Switching:              | D.P.C.O Momentary Action                                    | D.P.C.O Momentary Action                                    |
| Max. Rating:            | 250V ac                                                     | 250V ac                                                     |
| Contact Resistance:     | 50mΩ max. @ 1A, 2V                                          | 50mΩ max. @ 1A, 2V                                          |
| Insulation Resistance:  | >10 <sup>3</sup> MΩ @ 500Vdc                                | >10 <sup>3</sup> MΩ @ 500Vdc                                |
| Dielectric Strength:    | > 2.0kVac                                                   | > 2.0kVac                                                   |
| Operating Temp. Range:  | -20°C to +55°C                                              | -20°C to +55°C                                              |
| Operations              |                                                             |                                                             |
| Mechanical:             | 200,000 (min)                                               | 200,000 (min)                                               |
| Electrical:             | 30,000 (min)                                                | 30,000 (min)                                                |
| Rear Nut Fixing Torque: | 12Nm                                                        | 12Nm                                                        |
| Materials               |                                                             |                                                             |
| Mouldings:              | Nylon                                                       | Nylon                                                       |
| Tags/Terminations:      | Brass, Silver Plated                                        | Brass, Silver Plated                                        |
| Switch Body & Button:   | Stainless Steel                                             | Stainless Steel                                             |
| Contacts:               | Silver                                                      | Silver                                                      |
| Variants:               | Nickel Plated Brass version available<br>Details on request | Nickel Plated Brass version available<br>Details on request |
| RoHS                    | Compliant                                                   | Compliant                                                   |

#### Low Profile



MP0045/1E

- 18mm bezel diameter
- 16mm fixing hole diameter
- D.P.C.O.
- 250V ac

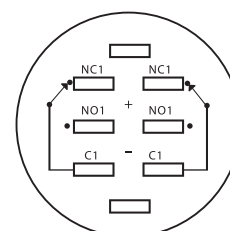
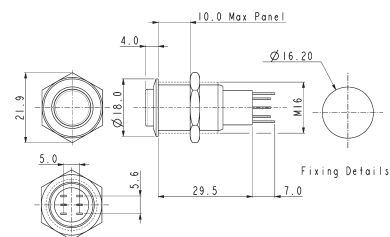


#### Prominent Button



MP0045/3E

- 18mm bezel diameter
- 16mm fixing hole diameter
- D.P.C.O.
- 250V ac



Contact Layout

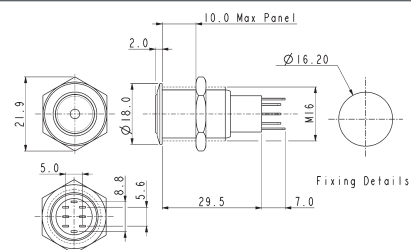
| Specifications          | MP0045/1E0NN000                                   | MP0045/3E0NN000                                   |
|-------------------------|---------------------------------------------------|---------------------------------------------------|
| Terminations:           | Solder Tags                                       | Solder Tags                                       |
| Switching:              | D.P.C.O. - Latching Action                        | D.P.C.O. - Latching Action                        |
| Max. Rating:            | 250V ac                                           | 250V ac                                           |
| Contact Resistance:     | 50mΩ max. @ 1A, 2V                                | 50mΩ max. @ 1A, 2V                                |
| Insulation Resistance:  | >10 <sup>3</sup> MΩ @ 500Vdc                      | >10 <sup>3</sup> MΩ @ 500Vdc                      |
| Dielectric Strength:    | >2.0kVac                                          | >2.0kVac                                          |
| Operating Temp. Range:  | -20°C to +55°C                                    | -20°C to +55°C                                    |
| Operations              |                                                   |                                                   |
| Mechanical:             | 200,000 (min)                                     | 200,000 (min)                                     |
| Electrical:             | 30,000 (min)                                      | 30,000 (min)                                      |
| Rear Nut Fixing Torque: | 12Nm                                              | 12Nm                                              |
| Materials               |                                                   |                                                   |
| Mouldings:              | Nylon                                             | Nylon                                             |
| Tags/Terminations:      | Brass, Tin Plated                                 | Brass, Tin Plated                                 |
| Switch Body & Button:   | Stainless Steel (Polished)                        | Stainless Steel (Polished)                        |
| Contacts:               | Silver                                            | Silver                                            |
| Thread size:            | Nickel Plated Brass version<br>Details on request | Nickel Plated Brass version<br>Details on request |
| RoHS                    | Compliant                                         | Compliant                                         |

## Front Panel Mounting



MP0045/1D1

- ⬡ Dot Illuminated
- ⬡ 18mm bezel diameter
- ⬡ D.P.C.O.
- ⬡ 3A, 250V ac
- ⬡ Red, Green, Amber or Blue Illumination
- ⬡ Separate LED Terminals

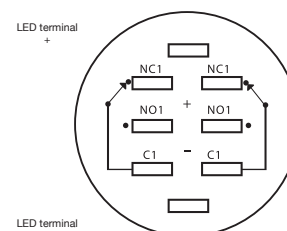
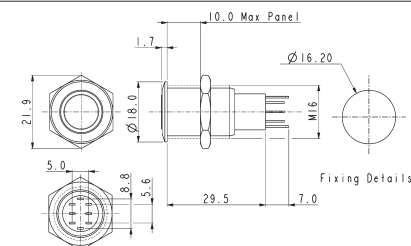


## Front Panel Mounting



MP0045/1D2

- ⬡ Ring Illuminated
- ⬡ 18mm bezel diameter
- ⬡ D.P.C.O.
- ⬡ 3A, 250V ac
- ⬡ Red, Green, Amber or Blue Illumination
- ⬡ Separate LED Terminals



Contact Layout

| Specifications          | MP0045/1D1/Colour/Voltage            |        |       |      | MP0045/1D2/Colour/Voltage            |        |       |      |
|-------------------------|--------------------------------------|--------|-------|------|--------------------------------------|--------|-------|------|
| Terminations:           | Solder Tags                          |        |       |      | Solder Tags                          |        |       |      |
| Illumination:           | Dot                                  |        |       |      | Ring                                 |        |       |      |
| Switching:              | D.P.C.O. Momentary Action            |        |       |      | D.P.C.O. Momentary Action            |        |       |      |
| Max. Switch Rating:     | 3A, 250Vac                           |        |       |      | 3A, 250Vac                           |        |       |      |
| LEDs                    |                                      |        |       |      |                                      |        |       |      |
| Colours                 | Red                                  | Green  | Amber | Blue | Red                                  | Green  | Amber | Blue |
| Part No.                | /RD                                  | /GN    | /AM   | /BL  | /RD                                  | /GN    | /AM   | /BL  |
| Voltage                 | 12Vdc                                | 220Vdc |       |      | 12Vdc                                | 220Vdc |       |      |
| Part No.                | /012                                 | /220   |       |      | /012                                 | /220   |       |      |
| Contact Resistance:     | 50mΩ max. @ 1A, 2Vdc                 |        |       |      | 50mΩ max. @ 1A, 2Vdc                 |        |       |      |
| Insulation Resistance:  | >10³ MΩ @ 500Vac                     |        |       |      | >10³ MΩ @ 500Vac                     |        |       |      |
| Dielectric Strength:    | >2.0kVac                             |        |       |      | >2.0kVac                             |        |       |      |
| Operating Temp. Range:  | −20°C to +55°C                       |        |       |      | −20°C to +55°C                       |        |       |      |
| Operations              |                                      |        |       |      |                                      |        |       |      |
| Mechanical:             | 200,000 (min)                        |        |       |      | 200,000 (min)                        |        |       |      |
| Electrical:             | 30,000 (min)                         |        |       |      | 30,000 (min)                         |        |       |      |
| Rear Nut Fixing Torque: | 12Nm                                 |        |       |      | 12Nm                                 |        |       |      |
| Materials               |                                      |        |       |      |                                      |        |       |      |
| Mouldings:              | Nylon                                |        |       |      | Nylon                                |        |       |      |
| Tags:                   | Brass, Silver Plated                 |        |       |      | Brass, Silver Plated                 |        |       |      |
| Switch Body & Button:   | Stainless Steel (Polished)           |        |       |      | Stainless Steel (Polished)           |        |       |      |
| Variants                | Prominent Button, details on request |        |       |      | Prominent Button, details on request |        |       |      |
| RoHS                    | Compliant                            |        |       |      | Compliant                            |        |       |      |

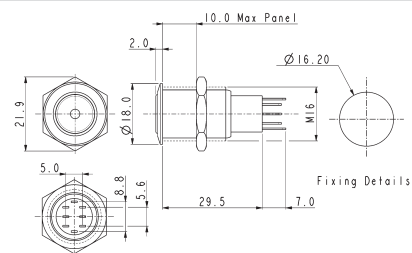


## Front Panel Mounting



MP0045/1E1

- Dot Illuminated
- 18mm bezel diameter
- D.P.C.O.
- 3A, 250V ac
- Red, Green, Amber or Blue Illumination
- Separate LED Terminals

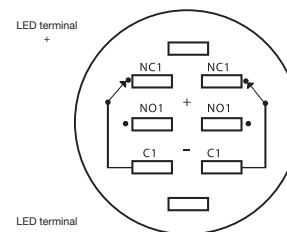
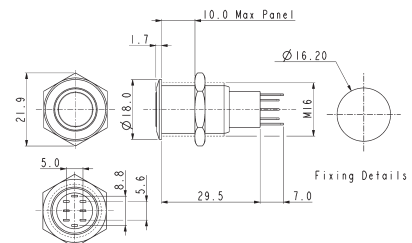


## Front Panel Mounting



MP0045/1E2

- Ring Illuminated
- 18mm bezel diameter
- D.P.C.O.
- 3A, 250V ac
- Red, Green, Amber or Blue Illumination
- Separate LED Terminals



Contact Layout

| Specifications          | MP0045/1E1/Colour/Voltage            |        |       |      | MP0045/1E2/Colour/Voltage            |        |       |      |
|-------------------------|--------------------------------------|--------|-------|------|--------------------------------------|--------|-------|------|
| Terminations:           | Solder Tags                          |        |       |      | Solder Tags                          |        |       |      |
| Illumination:           | Ring                                 |        |       |      | Ring                                 |        |       |      |
| Switching:              | D.P.C.O. Momentary Action            |        |       |      | D.P.C.O. Momentary Action            |        |       |      |
| Max. Switch Rating:     | 3A, 250Vac                           |        |       |      | 3A, 250Vac                           |        |       |      |
| LEDs                    |                                      |        |       |      |                                      |        |       |      |
| Colours                 | Red                                  | Green  | Amber | Blue | Red                                  | Green  | Amber | Blue |
| Part No.                | /RD                                  | /GN    | /AM   | /BL  | /RD                                  | /GN    | /AM   | /BL  |
| Voltage                 | 12Vdc                                | 220Vdc |       |      | 12Vdc                                | 220Vdc |       |      |
| Part No.                | /012                                 | /220   |       |      | /012                                 | /220   |       |      |
| Contact Resistance:     | 50mΩ max. @ 1A, 2Vdc                 |        |       |      | 50mΩ max. @ 1A, 2Vdc                 |        |       |      |
| Insulation Resistance:  | >10³ MΩ @ 500Vac                     |        |       |      | >10³ MΩ @ 500Vac                     |        |       |      |
| Dielectric Strength:    | >2.0kVac                             |        |       |      | >2.0kVac                             |        |       |      |
| Operating Temp. Range:  | -20°C to +55°C                       |        |       |      | -20°C to +55°C                       |        |       |      |
| Operations              |                                      |        |       |      |                                      |        |       |      |
| Mechanical:             | 200,000 (min)                        |        |       |      | 200,000 (min)                        |        |       |      |
| Electrical:             | 30,000 (min)                         |        |       |      | 30,000 (min)                         |        |       |      |
| Rear Nut Fixing Torque: | 12Nm                                 |        |       |      | 12Nm                                 |        |       |      |
| Materials               |                                      |        |       |      |                                      |        |       |      |
| Mouldings:              | Nylon                                |        |       |      | Nylon                                |        |       |      |
| Tags:                   | Brass, Silver Plated                 |        |       |      | Brass, Silver Plated                 |        |       |      |
| Switch Body & Button:   | Stainless Steel (Polished)           |        |       |      | Stainless Steel (Polished)           |        |       |      |
| Variants                | Prominent Button, details on request |        |       |      | Prominent Button, details on request |        |       |      |
| RoHS                    | Compliant                            |        |       |      | Compliant                            |        |       |      |



H8300RP - - -

### Key Features

- Momentary or latching action
- Ratings up to 12(12) @ 250Vac
- Single and double pole
- Stainless steel button & bezel
- Vandal resistant construction
- Choice of body styles
- 19.2mm or 22.5mm mounting holes
- Front panel sealed to IP66
- Raised, flat or domed actuator options

### Approvals and specifications

CE 16(4)A 250Vac T85, 1E4 (10,000 Operations)  
 12(12)A 250Vac T105, 1E4 (10,000 Operations)  
 8(8)A 250Vac T105, 5E4 (50,000 Operations)  
 6(6)A 250Vac T125, 5E4 (50,000 Operations)

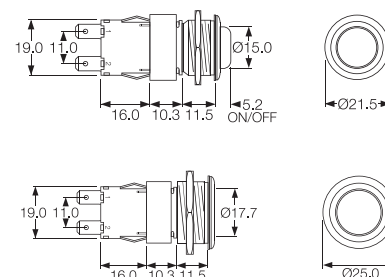
UL 12A 250Vac DP, 13A 250Vac SP  
 250Vac 1hp, 125Vac 1/2hp  
 UL 85°C, file E45221, CSA file LR10990

In house test:  
 10(10)A 250Vac—Indicative rating only

3mm contact gap.  
 Technical data on pages 4 & 5 (switches),  
 6 (indicators).

### Dimensions

8300RP (H terminals shown)



| Terminal                     | Function                                                     | Actuator                                                          | Body Code                                                                    |
|------------------------------|--------------------------------------------------------------|-------------------------------------------------------------------|------------------------------------------------------------------------------|
| <b>C</b><br><br><b>H</b><br> | <b>8300</b><br>(alternate)<br>Single pole<br>ON - OFF<br>    | <b>R</b><br>(for P body only)<br>Raised top (stainless steel)<br> |                                                                              |
| <b>K</b><br><br><b>T</b><br> | <b>8301</b><br>(momentary ON)<br>Single pole<br>ON - OFF<br> | <b>V</b><br>Flat top (stainless steel)<br>                        | <b>P</b><br>(for R actuator only)<br>Stainless steel, Soft profile bezel<br> |
| <b>V</b><br><br><b>X</b><br> | <b>8301</b><br>(momentary ON)<br>Single pole<br>ON - OFF<br> | <b>P</b><br>Domed top (stainless steel)<br>                       | <b>M</b><br>Stainless steel<br>                                              |



C0911VA - - -

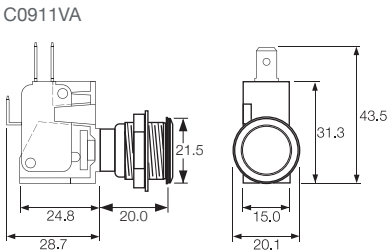
**Key Features**

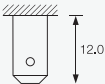
- Snap action switches
- Ratings up to 16A, 250Vac
- Round and rectangular buttons
- Single Pole C/O Switch

**Approvals and specifications**

- 16(4)A 250Vac 5E4 T85
- 16A 125/250Vac 3/4hp T85 50E3  
125V 1/2 HP, 250V 3/4 HP, 0.4A 125Vdc, 0.2A 250Vdc
- Approvals apply to switch mechanism only.  
μ contact gap.

**Dimensions**



| Terminal                                                                            | Function                                                                                                                  | Actuator                                                                                                                    | Body Code                                                                                                                                                                                     |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <b>0911</b><br>(momentary)<br>ON - ON  | <b>V</b> Flat top (stainless steel)<br> | <b>A</b><br>Stainless steel<br>Chamfer profile bezel<br><br>Panel cut-out<br>Panel thickness up to 8.0mm |

Bulgin's broad line of pushbutton switches are available in various sizes and configurations. This includes a variety of illumination and terminal options as well as several with high inductive power ratings suitable for motor driven applications. These switches can be found in many markets including home appliances, commercial, medical, audio and security.

- ⬡ Miniature, round and rectangular push button switches available
- ⬡ Ratings up to 16A, 250V ac  
12(12)A 250V ac rating also available
- ⬡ Latching and momentary actions
- ⬡ Choice of actuators  
(custom option also available)
- ⬡ Square and Round Mounting Styles

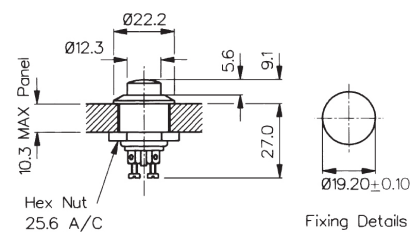


Front Panel Mounting



MP0012/Col

- 22mm diameter
- Prominent Button
- S.P. Push to Make
- Screw Terminals
- Brass, Chrome Plated Body, Glass Filled Nylon Button

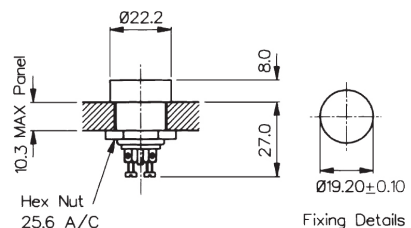


Front Panel Mounting



MP0012/1/Col

- 22mm diameter
- Recessed Button
- S.P. Push to Make
- Screw Terminals
- Brass, Chrome Plated Body, Glass Filled Nylon Button

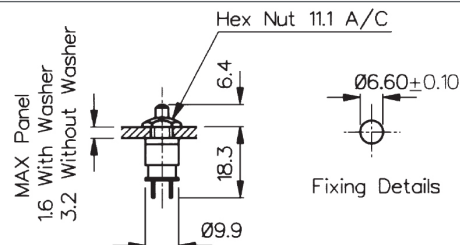


Rear Panel Mounting



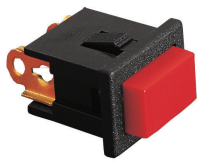
MP0016

- S.P. Push to Make
- Solder Tags
- 1A, 28Vac/dc
- Brass Nickel Plated Body, Glass Filled Nylon Button



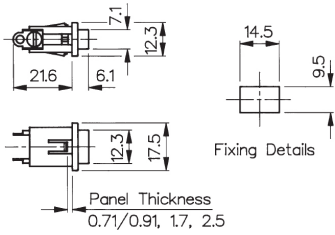
| Specifications            | MP0012/Colour                                 | MP0012/1/Colour                               | MP0016/Colour                                 |
|---------------------------|-----------------------------------------------|-----------------------------------------------|-----------------------------------------------|
| Terminations:             | Screw Terminals                               | Screw Terminals                               | Solder Tags                                   |
| Switching:                | S.P. Push to Make<br>Slow Momentary Action    | S.P. Push to Make<br>Slow Momentary Action    | S.P. Push to Make<br>Slow Momentary Action    |
| Max. Rating:              | 0.25A. 250Vac, 1A. 110Vac,<br>2A. 12Vac/dc    | 0.25A. 250Vac, 1A. 110Vac,<br>2A. 12Vac/dc    | 1A 28Vac/dc (non-inductive)                   |
| Contact Resistance:       | <15mΩ                                         | <15mΩ                                         | <15mΩ                                         |
| Insulation Resistance:    | >10 <sup>4</sup> MΩ                           | >10 <sup>4</sup> MΩ                           | >10 <sup>4</sup> MΩ                           |
| Dielectric Strength:      | >2.5kVac                                      | >2.5kVac                                      | >2.0kVac                                      |
| Operating Temp. Range:    | -20°C to +85°C                                | -20°C to +85°C                                | -20°C to +85°C                                |
| Operation Pressure (typ): | 9.18 newtons                                  | 9.18 newtons                                  | 6.22 newtons                                  |
| Materials                 |                                               |                                               |                                               |
| Moulding:                 | Glass Filled Nylon Brass,                     | Glass Filled Nylon Brass,                     | Glass Filled Nylon Brass,                     |
| Body:                     | Brass, Chrome Plated                          | Brass, Chrome Plated                          | Brass, Chrome Plated                          |
| Contacts/Terms:           | Brass, Silver Plated                          | Brass, Silver Plated                          | Brass, Silver Plated                          |
| Variant                   | Button Colour: Standard - Black,<br>/RD (Red) | Button Colour: Standard - Black,<br>/RD (Red) | Button Colour: Standard - Black,<br>/RD (Red) |
| RoHS                      | Compliant                                     | Compliant                                     | Compliant                                     |

Front Panel Mounting



MP0022/Col

- S.P. Push to Make
- Solder Tags
- Nylon Body & Button



Switch Contact Operation



S.P. Push to Make S.P.M.B



S.P.C.O.



D.P.C.O.



D.P.M.B.

| Specifications         | MP0022/Colour                                                                                |
|------------------------|----------------------------------------------------------------------------------------------|
| Terminations:          | Solder Tags                                                                                  |
| Switching:             | S.P. Push to Make<br>Slow Momentary Action                                                   |
| Max. Rating:           | 0.25A. 250Vac, 0.5A. 110Vac,<br>1A. 0.1 to 28Vac/dc                                          |
| Contact Resistance:    | <15mΩ                                                                                        |
| Insulation Resistance: | >10 <sup>4</sup> MΩ                                                                          |
| Dielectric Strength:   | >2.5kVac                                                                                     |
| Operating Temp. Range: | -20°C to +70°C                                                                               |
| Sealing:               |                                                                                              |
| Materials              |                                                                                              |
| Moulding:              | Nylon                                                                                        |
| Tags:                  | Brass, Silver Plated                                                                         |
| Body:                  | Nylon                                                                                        |
| Contacts/Terms:        | Brass, Silver Plated                                                                         |
| Variant                | Button Colours: Standard - Black,<br>/WH (White) and /RD (Red).<br>/TERM - (Screw terminals) |
| RoHS                   | Compliant                                                                                    |



# 8300 Series Push Button

8(8)A 250Vac & 12(12)A 250Vac



## Key Features

- Miniature push button
- 8A Inductive current rating
- Ratings up to 12(12)A, 250V ac (H suffix)
- Illuminated and nonilluminated
- Single and double pole
- Latching and momentary
- Slotted actuator for custom buttons
- Industry standard panel cutout
- BioCote antimicrobial option
- Panel cut out: 19.3 x 12.9

## Approvals and specifications

16(4)A 250Vac T85, 1E4 (10,000 Operations)  
12(12)A 250Vac T105, 1E4 (10,000 Operations)  
8(8)A 250Vac T105, 5E4 (50,000 Operations)  
6(6)A 250Vac T125, 5E4 (50,000 Operations)

8350, 8351, 8353, 8354  
12A 250Vac DP, 250Vac 1hp, 125Vac 1/2hp

8300, 8301, 8303, 8304  
13A 250Vac SP, 250Vac 1hp, 125Vac 1/2hp

UL 85°C, file E45221, CSA file LR10990

In house test:  
10(10)A 250Vac—Indicative rating only

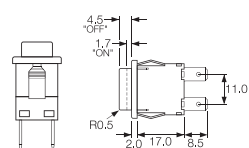
BioCote antimicrobial additive. Independently verified to ISO22196:2007.

3mm contact gap.

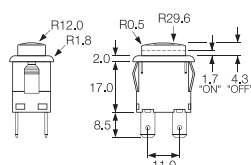
| Terminal                                                                              | Function                                                                                             | Actuator                                | Body Code                                                                                                                                                                                                                                        | Body Colour       |             |           |           |           |           |           |           |  |
|---------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------|-----------|-----------|-----------|-----------|-----------|-----------|--|
| <b>C</b><br><br>6.3 x 0.8<br>10.1                                                     | <br>Approvals & ratings vary with function<br>Single pole switches use terminals 1 & 2 (& 3)         |                                         | Panel cut-out **    Bezel                                                                                                                                                                                                                        |                   |             |           |           |           |           |           |           |  |
| <b>H</b><br><br>4.8 x 0.8<br>8.5                                                      | <b>8300</b><br>Single Pole<br>ON - OFF<br>                                                           | <b>A</b><br>Standard actuator<br>       | <b>B</b><br>Standard body<br>                                                                                                                                                                                                                    | <b>B</b><br>Black |             |           |           |           |           |           |           |  |
| <b>A</b><br><br>7.6<br>7.6<br>As "H" but right angle 4.8 x 0.8                        | <b>8301</b><br>Single Pole<br>ON - OFF (momentary ON)<br>                                            | <b>H</b><br>Slotted for custom caps<br> | <b>E</b><br>Softline style body with radiused bezel<br>                                                                                                                                                                                          | <b>W</b><br>White |             |           |           |           |           |           |           |  |
| <b>K</b><br><br>2.8 x 0.8<br>8.5<br>2.6<br>1.5                                        | <b>8303</b><br>Single Pole<br>ON - OFF With Light<br>                                                | <b>C</b><br>Square actuator<br>         | Cut-outs must be punched in the direction of insertion                                                                                                                                                                                           |                   |             |           |           |           |           |           |           |  |
| <b>T</b><br><br>2.8 x 0.8<br>7.0<br>2.6<br>1.5<br>Solder                              | <b>8304</b><br>Single Pole<br>ON - OFF (momentary ON) with light<br>                                 | <b>E</b><br>Radiused actuator<br>       | <b>Dimensions for snap-in fixing</b> <table><tr><th>Panel thickness</th><th>Dimension X</th></tr><tr><td>0.75-1.24</td><td>19.1/19.2</td></tr><tr><td>1.25-1.99</td><td>19.3/19.4</td></tr><tr><td>2.00-3.00</td><td>19.7/19.8</td></tr></table> | Panel thickness   | Dimension X | 0.75-1.24 | 19.1/19.2 | 1.25-1.99 | 19.3/19.4 | 2.00-3.00 | 19.7/19.8 |  |
| Panel thickness                                                                       | Dimension X                                                                                          |                                         |                                                                                                                                                                                                                                                  |                   |             |           |           |           |           |           |           |  |
| 0.75-1.24                                                                             | 19.1/19.2                                                                                            |                                         |                                                                                                                                                                                                                                                  |                   |             |           |           |           |           |           |           |  |
| 1.25-1.99                                                                             | 19.3/19.4                                                                                            |                                         |                                                                                                                                                                                                                                                  |                   |             |           |           |           |           |           |           |  |
| 2.00-3.00                                                                             | 19.7/19.8                                                                                            |                                         |                                                                                                                                                                                                                                                  |                   |             |           |           |           |           |           |           |  |
| <b>X</b><br><br>4.5<br>7.0<br>3.7 Ctrs<br>PCB 0.8 Sq                                  | <b>8350</b><br>Double pole<br>ON - OFF<br>                                                           | <b>F</b><br>Small round actuator<br>    | X and V PCB terminals.<br>Additional dummy terminals may be supplied for extra support.                                                                                                                                                          |                   |             |           |           |           |           |           |           |  |
| <b>V</b><br><br>4.3<br>7.0<br>3.7 Ctrs<br>Dual pin PCB (Call sales for mounting dims) | <b>8351</b><br>Double pole<br>ON - OFF (momentary ON) with light<br>                                 | <b>J</b><br>Smooth curved actuator<br>  |                                                                                                                                                                                                                                                  |                   |             |           |           |           |           |           |           |  |
|                                                                                       | <b>8353</b><br>Double pole<br>ON - OFF With light<br>                                                | <b>M</b><br>                            |                                                                                                                                                                                                                                                  |                   |             |           |           |           |           |           |           |  |
|                                                                                       | <b>8354</b><br>Double pole<br>ON - OFF (momentary ON) with light<br>                                 | <b>D</b><br>Large round actuator<br>    |                                                                                                                                                                                                                                                  |                   |             |           |           |           |           |           |           |  |
|                                                                                       | <b>8355</b><br>Single pole<br>ON - OFF<br>Isolated light - switched<br>C, E & M actuators only<br>   |                                         |                                                                                                                                                                                                                                                  |                   |             |           |           |           |           |           |           |  |
|                                                                                       | <b>8356</b><br>Single pole<br>ON - OFF<br>Isolated light - unswitched<br>C, E & M actuators only<br> |                                         |                                                                                                                                                                                                                                                  |                   |             |           |           |           |           |           |           |  |
|                                                                                       |                                                                                                      | All actuators except H available lit    |                                                                                                                                                                                                                                                  |                   |             |           |           |           |           |           |           |  |

## Dimensions

Actuator A  
Body B



Actuator J  
Body E



## Examples



H8350AB ---  
T8350AB ---



H8353JE ---  
T8353JE ---



H8353EB ---  
T8353EB ---

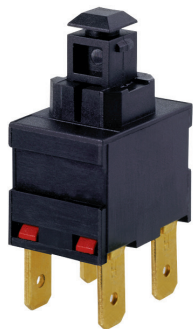


H8353CB ---  
T8353CB ---

| Actuator Colour   | Lamp Voltage                | Legend | Legend Colour | Options                                                                                                                                                                                                                        | Biocote             |
|-------------------|-----------------------------|--------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| LIT               |                             |        |               |                                                                                                                                                                                                                                |                     |
| <b>A</b><br>Amber | —<br>None                   |        |               | <b>H</b><br>12(12)A 250Vac switch rating                                                                                                                                                                                       | <b>B</b><br>Biocote |
| <b>C</b><br>Clear | <b>2</b><br>125V Neon       |        |               | <b>Finish</b><br>Matt finish standard except on J and D actuators which are gloss                                                                                                                                              |                     |
| <b>G</b><br>Green | <b>3</b><br>250V Neon       |        |               | <b>Colour</b><br>Call sales for custom colours<br>A full range is available for large orders                                                                                                                                   |                     |
| <b>R</b><br>Red   | <b>7</b><br>12V<br>Filament |        |               | <b>Legend printing</b><br>Select from the examples or call sales for custom legends.                                                                                                                                           |                     |
| UNLIT             | <b>8</b><br>24V<br>Filament |        |               | <b>Special buttons</b><br>Some of the many options are shown<br>Call sales for the full range                                                                                                                                  |                     |
| <b>B</b><br>Black |                             |        |               | <b>L167 Protective cover</b><br><br>Snaps on to switch bodies fitted with "A" or "J" style actuators, this reduces panel thickness by 0.8mm |                     |
| <b>R</b><br>Red   |                             |        |               | <b>BioCote Antimicrobial Additive</b><br>Moulded components have antimicrobial properties using BioCote silver ion technology.                                                                                                 |                     |
| <b>W</b><br>White |                             |        |               |                                                                                                                                                                                                                                |                     |

# 8200 Series Push Button

8(8)A 250Vac & 12(12)A 250Vac



## Key Features

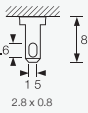
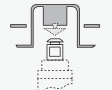
- Miniature push button
- 8A Inductive current rating
- Ratings up to 12(12)A, 250V ac (H suffix)
- Without button
- Sub panel mount
- Push on, solder or PCB terminals
- Latching and momentary

## Approvals and specifications

16(4)A 250Vac T85, 1E4 (10,000 Operations)  
12(12)A 250Vac T105, 1E4 (10,000 Operations)  
8(8)A 250Vac T105, 5E4 (50,000 Operations)  
6(6)A 250Vac T125, 5E4 (50,000 Operations)

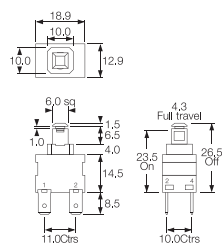
12A 250Vac  
250Vac 1hp, 125Vac 1/2hp  
UL 85°C, file E45221, CSA file LR10990

3mm contact gap.

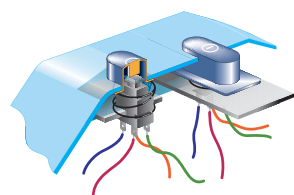
| Terminal                                                                                                                                                                                                                                                                                                                                                                         | Function                                                                                                                                                                                                                                        | Actuator                                                                                                                                                                                                                                                                              | Body Code                                                                                                                                                                                                                        |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>C</b></p>                                                                                                                                                                                                                                                                                | <p>Approvals &amp; ratings vary with function<br/>Single pole switches use terminals 1 &amp; 2 (&amp; 3)</p> <p><b>8200</b><br/>Single Pole<br/>ON - OFF</p>  | <p><b>A</b></p> <p>Standard actuator for snap-on custom adaptors</p>                                                                                                                                | <p><b>A</b></p> <p>Standard body</p>                                                                                                         |
| <p><b>H</b></p>  <p><b>A</b></p>  <p>As "H" but right angle 4.8 x 0.8</p>                                                                                                                                  | <p><b>8201</b><br/>Single Pole<br/>ON - OFF<br/>(momentary ON)</p>                                                                                           | <p><b>B</b></p> <p>Flat top actuator</p>  <p><b>C</b></p> <p>Curved top actuator</p>                          | <p>See dimensioned drawings for details</p> <p><b>C</b></p> <p>As standard body but with side support peg for use with M PCB terminals</p>  |
| <p><b>K</b></p>  <p><b>T</b></p>  <p>Solder</p> <p><b>V</b></p>  <p>Dual pin PCB<br/>(Call sales for mounting dims)</p> | <p><b>8250</b><br/>Double Pole<br/>ON - OFF</p>                                                                                                              | <p>Examples of possible actuation methods</p> <p>Using a Snap on adaptor</p>  <p>Using a Hinged Actuator</p>  | <p>X and V PCB terminals.<br/>Additional dummy terminals may be supplied for extra support.</p>                                             |
| <p><b>X</b></p>  <p>PCB 0.8 Sq</p>                                                                                                                                                                                                                                                            | <p><b>8251</b><br/>Double Pole<br/>ON - OFF<br/>(momentary ON)</p>                                                                                           |                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                  |

## Dimensions

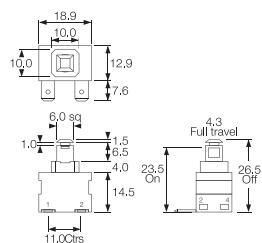
'A' body with 'H' 4.8 terminals



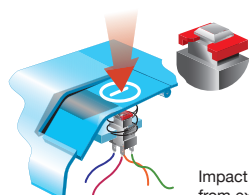
Example of possible mounting styles



'A' body with 'A' right angle 4.8 terminals

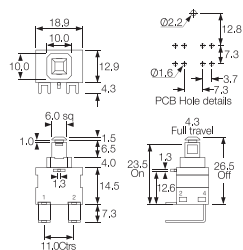


Alternative Actuator



Impact washer resists damage from excessive operator force

'C' body with 'M' right angle PCB terminals



## Examples



C8250AA ---  
with impact  
washer M1226



X8201AA ---



K8200AA ---



A8200AA ---



M8200AC ---



Example of M8200AC

# 7000 Series Push Button

16A 250Vac



## Key Features

- Round and rectangular push button switches
- Ratings up to 16A, 250V ac
- Latching and momentary
- Illuminated & non-illuminated
- Matching indicators
- Low profile version
- Panel cut outs: 25.0 dia 27.2 x 22.3

## Approvals and specifications

16(4)A 250Vac T125  
8(8)A 250Vac T85

UL CSA 16A Non Ind, 250Vac 1hp, 125Vac 1/2hp  
UL 65°C, file no. E45221, CSA file no. LR10990

3mm contact gap.

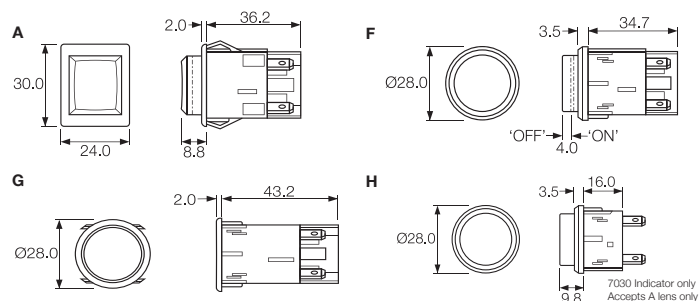
| Terminal                         | Function                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Actuator                                                                                                                                                                                                                                                                                                                                 | Body Code                                                                                   |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| <p><b>C</b></p> <p>6.3 x 0.8</p> | <p>Approvals &amp; ratings vary with function<br/>Single pole switches use terminals 1 &amp; 2 (&amp; 3)</p> <p><b>7000</b><br/>Single Pole<br/>ON - OFF</p> <p><b>7001</b><br/>Single Pole<br/>(momentary)<br/>ON - OFF</p> <p><b>7003</b><br/>Single Pole<br/>(with light)<br/>ON - OFF</p> <p><b>7004</b><br/>Single Pole<br/>(momentary)<br/>with light<br/>ON - OFF</p> <p><b>7050</b><br/>Double Pole<br/>ON - OFF</p> <p><b>7051</b><br/>Double Pole<br/>with light<br/>ON - OFF</p> <p><b>7053</b><br/>Double pole<br/>with light<br/>ON - OFF</p> <p><b>7054</b><br/>Double pole<br/>(momentary ON)<br/>with light<br/>ON - OFF</p> <p><b>7030</b><br/>Indicator<br/>UL E63363<br/>CSA LR29381</p> | <p><b>A</b> Round actuator shown in F body</p> <p><b>A</b> Round actuator shown in G body</p> <p><b>B</b> Round actuator - medium shown in F body</p> <p><b>C</b> Round actuator - long shown in F body</p> <p><b>D</b> Round actuator - sub panel mount</p> <p><b>S</b> Rectangular actuator<br/>Shown in "A" body<br/>N/A for 7030</p> | <p>Panel cut-outs</p> <p><b>F H G</b><br/>Body types fit either cut-out</p> <p><b>A</b></p> |

## Dimensions

Panel thickness:

A - 0.8 - 2.5mm

F, G, H - 0.8 - 5.0mm



## Examples



C7000AF ---



C7003AF ---



C7050SA ---



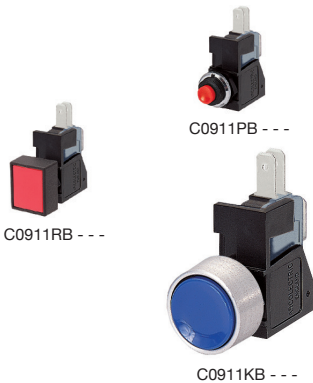
C7053AG ---

| Body Colour       | Actuator Colour          | Lamp Voltage                | Legend | Legend Colour | Options                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------|--------------------------|-----------------------------|--------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>B</b><br>Black | LIT<br><b>A</b><br>Amber | —<br>None                   |        |               | <p><b>Finish</b><br/>Matt finish is standard on bodies.<br/>Gloss finish is standard on actuators.</p> <p><b>Colour</b><br/>Call sales for custom colours.<br/>A full range is available for large orders.</p> <p><b>Legend printing</b><br/>A wide range is available or call sales for custom legends.</p> <p><b>Lamp voltage</b><br/>Call sales for details of available voltages.</p> <p><b>Weatherproof housing (E)</b><br/>Additional housing which fits round body switches with an oversize housing with a clear silicone cover designed to IP65.<br/>Mounting hole dia: 38.0mm</p> |
| <b>W</b><br>White | <b>C</b><br>Clear        | <b>2</b><br>125V Neon       |        |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                   | <b>G</b><br>Green        | <b>3</b><br>250V Neon       |        |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                   | <b>R</b><br>Red          | <b>7</b><br>12V<br>Filament |        |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                   |                          | <b>8</b><br>24V<br>Filament |        |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                   | UNLIT                    |                             |        |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                   | <b>B</b><br>Black        |                             |        |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                   | <b>R</b><br>Red          |                             |        |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                   | <b>W</b><br>White        |                             |        |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                   |                          |                             |        |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |



# 0911 Push Button Switches

0.5A 250Vac



## Key Features

- Snap action switches
- Ratings up to 16A, 250Vac
- Round and rectangular buttons

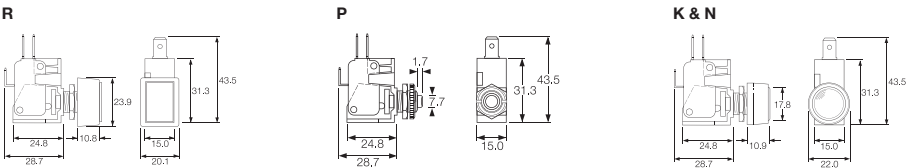
## Approvals and specifications

16(4)A 250Vac 5E4 T85

16A 125/250Vac 3/4hp T85 50E3  
125V 1/2 HP, 250V 3/4 HP, 0.4A 125Vdc, 0.2A 250Vdc

Approvals apply to switch mechanism only.  
μ contact gap.

## Dimensions



| Terminal | Function                              | Actuator                                                                                                                      | Body Code                                                                   | Options                         |
|----------|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|---------------------------------|
|          | <b>0911</b><br>(momentary)<br>ON - ON | <b>R</b> Rectangular bezel<br><br><b>P</b> Short<br><br><b>K</b> with satin chrome bezel<br><br><b>N</b> with nylon bezel<br> | <br>Panel Cut-out<br>Panel thickness<br>Both nuts 2.5mm<br>No backnut 4.0mm | Call factory for custom colours |

# 0916 - 0920 Push Button Switches

0.5A 250Vac

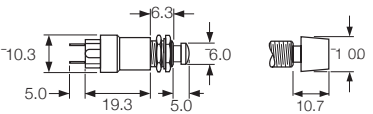


### Key Features

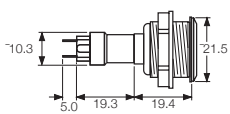
- Self wiping contacts
- Slow make & break
- Momentary action
- Choice of switch circuits
- Choice of actuators

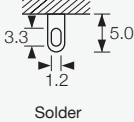
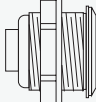
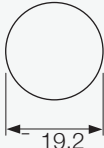
### Dimensions

Dimensions (mm) Nylon S and L actuators



Stainless steel V actuator (IP66)



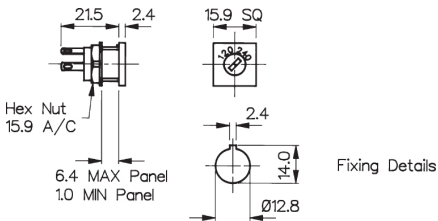
| Terminal                                                                                                  | Function                                                                                                                                                    | Actuator                                                                                                                                             | Body Code                                                                                     | Options                                                                              |
|-----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| <b>T</b><br><br>Solder | <b>0916</b><br><br>Black base<br>SP ON - OFF (momentary)                 | <b>S</b><br>Small Actuator<br>                                    | <br>7.1  | Finish<br>Gloss finish for L and S actuators.                                        |
|                                                                                                           | <b>0917</b> 50V only<br><br>Brown base<br>SP ON - OFF (momentary 1 side) | <b>L</b><br>Large Actuator<br>                                    | Panel Cut-out (L & S Actuators)<br>Panel thickness Both nuts - 2.5mm<br>No Backnut - 4.0      | Colour<br>Call sales for custom colours. A full range is available for large orders. |
|                                                                                                           | <b>0918</b><br><br>White base<br>SP ON - OFF (momentary OFF)             | <b>V</b><br>Vandal Resistant IP66<br>Flattop Stainless Steel<br> | <br>19.2 |                                                                                      |
|                                                                                                           | <b>0919</b><br><br>Black base<br>DP ON - OFF (momentary 1 side)          |                                                                                                                                                      | Panel Cut-out (Stainless Steel V Actuator)<br>Panel thickness - 8.0mm                         |                                                                                      |
|                                                                                                           | <b>0920</b><br><br>White base<br>DP ON - OFF (momentary ON)              |                                                                                                                                                      |                                                                                               |                                                                                      |

120/140V Voltage Selector



VS0001

- 2.8 series tabs/solder tags
- Square Front Bezel
- 6.3A
- CSA & VDE approvals

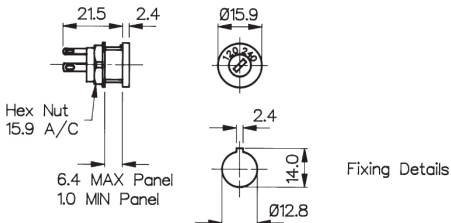


120/140V Voltage Selector

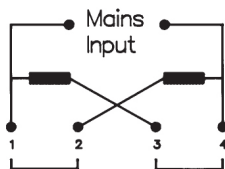


VS0002

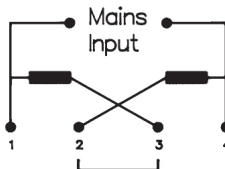
- 2.8 series tabs/Solder tags
- Round Front Bezel
- 6.3A
- CSA & VDE approvals



Connection Parallel 120V



Connection Series 240V



| Specifications         | VS0001                                                                              | VS0002                                                                              |
|------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Max. Rating:           | 6.3A, 120 / 240                                                                     | 6.3A, 120 / 240                                                                     |
| Insulation Resistance: | >106 MΩ                                                                             | >106 MΩ                                                                             |
| Termination:           | 2.8 series tabs/solder tags                                                         | 2.8 series tabs/solder tags                                                         |
| Temperature Range:     | -20°C to +85°C                                                                      | -20°C to +85°C                                                                      |
| Materials:             |                                                                                     |                                                                                     |
| Mouldings:             | Glass Filled Nylon UL94V-1                                                          | Glass Filled Nylon UL94V-1                                                          |
| Tags:                  | Brass, Silver Plated                                                                | Brass, Silver Plated                                                                |
| Contacts:              | Copper Silver Alloy                                                                 | Copper Silver Alloy                                                                 |
| Approvals:             |  |  |
| Variants:              | Other markings, details on request                                                  | Other markings, details on request                                                  |
|                        | <b>RoHS</b>                                                                         | Compliant                                                                           |

Unlike traditional switches **Piezo** switches have **no moving mechanical parts** making them **extremely durable**, withstanding millions of actuations and requiring little to no maintenance.



Piezo Switches

# 16mm Stainless Steel

Non Illuminated

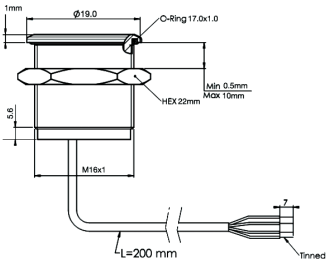


16MM Stainless Steel Non Illuminated



MPZ016

- Non Illuminated
- 20 cm lead
- Flathead or Guided profile

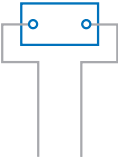


| Specification                    | MPZ016                                      |
|----------------------------------|---------------------------------------------|
| Type                             | Momentary                                   |
| Material                         | Stainless Steel<br>(Aluminium upon request) |
| Maximum Voltage                  | 24V AC/DC                                   |
| Switch Resistance “ON“           | <1Ω                                         |
| Switch Resistance “OFF“          | 5MΩ                                         |
| Capacitance                      | 100pF                                       |
| Switching current (momentary)    | 1A Max                                      |
| Switching current (prolonged)    | 300 mA                                      |
| Switching pulse time (momentary) | up to 0.3 sec                               |
| Actuating force, typically       | 3-5 N                                       |
| Life cycle                       | >10 Million                                 |

| Environmental Specification |                |
|-----------------------------|----------------|
| Sealing                     | IP68; IP69K    |
| Operating temperature       | -40°C to +85C° |
| Vibration resistance        | 5-500Hz/9.4m   |
| Shock resistance            | 75g (g-force)  |
| RoHS                        | Compliant      |

Circuit Specification

16MM Stainless Steel Non Illuminated



|                |           |
|----------------|-----------|
| Switch voltage | 24V AC/DC |
| Switch Current | 1A Max    |
| Power Supply   | 24V AC/DC |

# Piezo Switches

## 19mm Stainless Steel

Illuminated and Non Illuminated

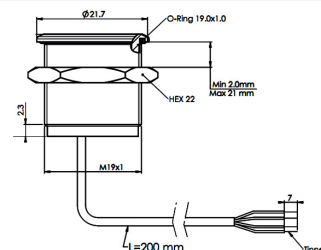


### 19MM Stainless Steel Illuminated

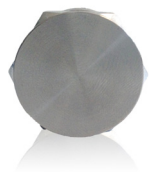


MPZI019

- ⬡ Blue Illumination
- ⬡ 20 cm lead
- ⬡ Flathead

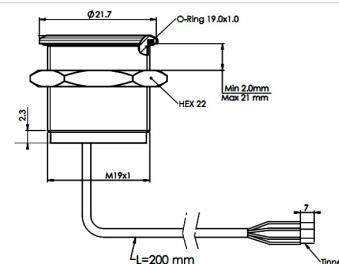


### 19MM Stainless Steel Non Illuminated



MPZ019

- ⬡ Non Illumination
- ⬡ 20 cm lead
- ⬡ Flathead



### Specification

#### MPZ019, MPZI019

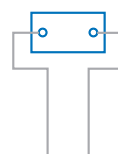
|                                     |                                             |
|-------------------------------------|---------------------------------------------|
| Type                                | Momentary                                   |
| Material                            | Stainless Steel<br>(Aluminium upon request) |
| Maximum Voltage                     | 24V AC/DC                                   |
| Switch Resistance "ON"              | <1Ω                                         |
| Switch Resistance "OFF"             | 5MΩ                                         |
| Capacitance                         | 100pF                                       |
| Switching current<br>(momentary)    | 1A Max                                      |
| Switching current<br>(prolonged)    | 300 mA                                      |
| Switching pulse time<br>(momentary) | up to 0.3 sec                               |
| LED Illumination                    | 24V AC/DC                                   |
| Actuating force, typically          | 3-5 N                                       |
| Life cycle                          | >10 Million                                 |

### Environmental Specification

|                       |                |
|-----------------------|----------------|
| Sealing               | IP68; IP69K    |
| Operating temperature | -40°C to +85°C |
| Vibration Resistances | 5-500Hz/9.4m   |
| Shock resistance      | 75g (g-force)  |
| RoHS                  | Compliant      |

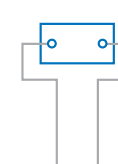
### Circuit Specification

#### 19MM Stainless Steel Non Illuminated



|                |           |
|----------------|-----------|
| Switch voltage | 24V AC/DC |
| Switch Current | 1A Max    |
| Power Supply   | 24V AC/DC |

#### 19MM Stainless Steel Illuminated

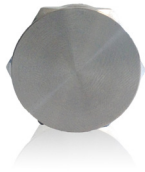


|                     |            |
|---------------------|------------|
| Switch voltage      | 24 V AC/DC |
| Switch Current      | 1A Max     |
| Colour* Illuminated | 24V AC/DC  |
| Power Supply        | 24V AC/DC  |

Piezo Switches  
**22mm Stainless Steel**  
 Illuminated and Non Illuminated

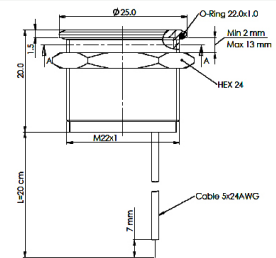


22MM Stainless Steel Non Illuminated



MPZ022

- Non Illumination
- 20 cm lead
- Flathead

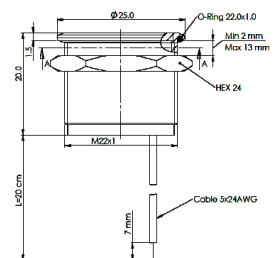


22MM Stainless Steel Illuminated



○ ○  
 MPZI022

- Red or Green Illumination
- 1 colour
- 20 cm lead
- Flathead

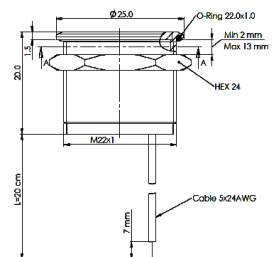


22MM Stainless Steel Illuminated



○ ○  
 MPZI022

- Red and Green Illumination
- (2 colour)
- 20 cm lead
- Flathead



**Specification**

**MPZ022, MPZI022**

|                                  |                                             |
|----------------------------------|---------------------------------------------|
| Type                             | Momentary                                   |
| Material                         | Stainless Steel<br>(Aluminium upon request) |
| Maximum Voltage                  | 24V AC/DC                                   |
| Switch Resistance "ON"           | <1Ω                                         |
| Switch Resistance "OFF"          | 5MΩ                                         |
| Capacitance                      | 100pF                                       |
| Switching current (momentary)    | 1A Max                                      |
| Switching current (prolonged)    | 300 mA                                      |
| Switching pulse time (momentary) | up to 0.3 sec                               |
| LED Illumination                 | 24V AC/DC                                   |
| Actuating force, typically       | 3-5 N                                       |
| Life cycle                       | >10 Million                                 |

**Environmental Specification**

|                       |                 |
|-----------------------|-----------------|
| Sealing               | IP68; IP69K     |
| Operating temperature | -40°C to +85°C° |
| Vibration Resistances | 5-500Hz/9.4m    |
| Shock resistance      | 75g (g-force)   |
| RoHS                  | Compliant       |

**Circuit Specification**

22MM Stainless Steel Non Illuminated



|                |           |
|----------------|-----------|
| Switch Voltage | 24 AC/DC  |
| Switch Current | 1A Max    |
| Power Supply   | 24V AC/DC |

22MM Stainless Steel Illuminated 1 colour



|                    |           |
|--------------------|-----------|
| Switch Voltage     | 24V AC/DC |
| Switch Current     | 1A Max    |
| Color* Illuminated | 24V AC/DC |
| Power Supply       | 24 AC/DC  |

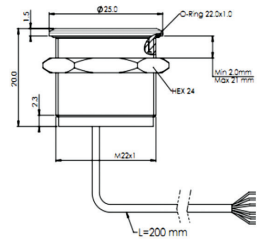
22MM Stainless Steel Illuminated 2 colour



|                    |           |
|--------------------|-----------|
| Switch Voltage     | 24V AC/DC |
| Switch Current     | 1A Max    |
| Color* Illuminated | 24V AC/DC |
| Power Supply       | 24 AC/DC  |



- Blue Illumination
- 1 colour
- 20 cm lead

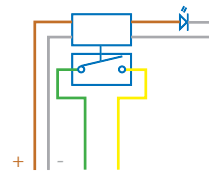


## MPZI022/L

|                            |                                             |
|----------------------------|---------------------------------------------|
| Type                       | Latching Toggle                             |
| Material                   | Stainless Steel<br>(Aluminium upon request) |
| Power Supply               | 24V AC/DC                                   |
| Switching voltage          | 48V AC peak/DC                              |
| Switch Resistance “ON“     | <0.7Ω                                       |
| Switch Resistance “OFF“    | >1000MΩ                                     |
| Capacitance                | <90pF                                       |
| Switching current          | 1A Max                                      |
| LED Illumination           | 24V AC/DC                                   |
| Actuating force, typically | 3-5 N                                       |
| Life cycle                 | >10 Million                                 |

|                       |                |
|-----------------------|----------------|
| Sealing               | IP68; IP69K    |
| Operating temperature | -40°C to +85°C |
| Vibration Resistances | 5-500Hz/9.4m   |
| Shock resistance      | 75g (g-force)  |
| RoHS                  | Compliant      |

## 22MM Stainless Steel Latching Toggle Illuminated



|                     |                 |
|---------------------|-----------------|
| Power Supply        | 24V AC/DC       |
| Switch Voltage      | 48V AC peak/ DC |
| Switch Current Max  | 1A Max          |
| Colour* Illuminated | 24V AC/DC       |

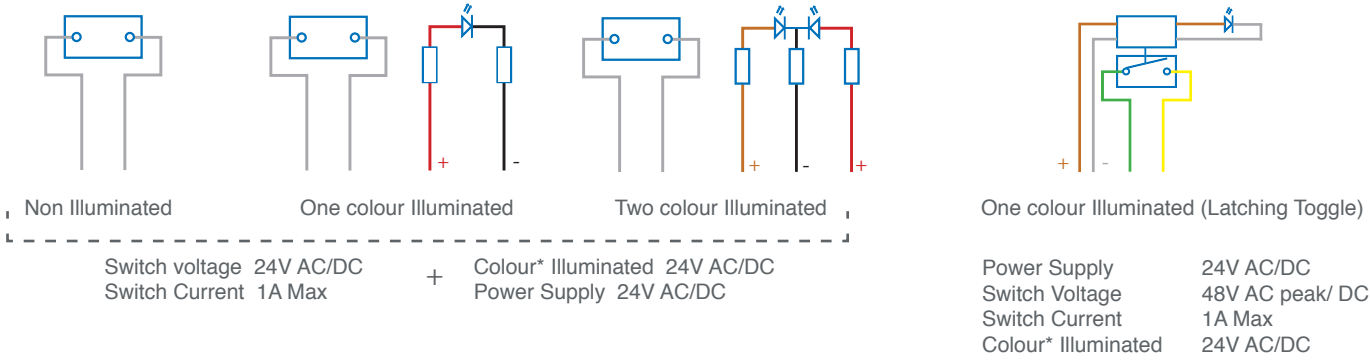
Part No System

|                                             |   |                                        |   |                                     |   |                                                           |   |             |   |                                               |
|---------------------------------------------|---|----------------------------------------|---|-------------------------------------|---|-----------------------------------------------------------|---|-------------|---|-----------------------------------------------|
| MPZ                                         | / | 016                                    | / | X                                   | / | XX                                                        | / | X           | / | X                                             |
| Series                                      |   | Body Diameter                          |   | Profile                             |   | Colour                                                    |   | Led Voltage |   | Type                                          |
| MPZ - Non Illuminated<br>MPZI - Illuminated |   | 016 = 16mm<br>019 = 19mm<br>022 = 22mm |   | F = Flat Head<br>G = Guided Profile |   | BL = Blue<br>RD = Red<br>GN = Green<br>D1 = Red and green |   | 24v         |   | L = Latching Toggle<br>(No Suffix= Momentary) |

Examples:

MPZ022/F = Non Illuminated Piezo, 22mm, Flathead  
MPZI022/F/RD/24 = Illuminated Piezo, 22mm, Flathead, Red Illumination, 24 volt  
MPZI022/G/BL/24/L = Illuminated Piezo, 22mm, Guided Profile, Blue Illumination, 24 volt, Latching Toggle

Circuit Specifications



Other switches are available upon request\*

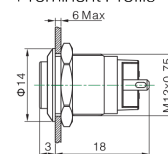
MAV0120



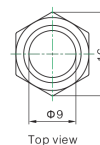
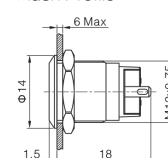
MAV0120

- Prominent and Flush Profile
- 12mm Diameter
- 2A, 36 dc
- IP67 (Front of Panel Only)

Prominent Profile



Flush Profile

**Specification****MAV0120/3****MAV0120/1**

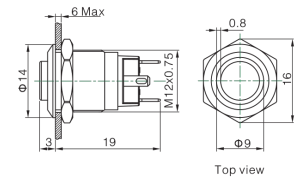
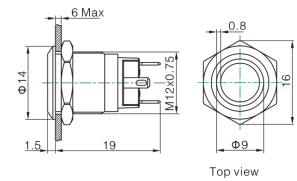
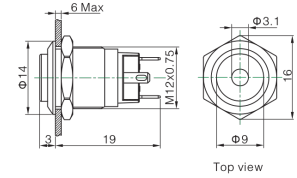
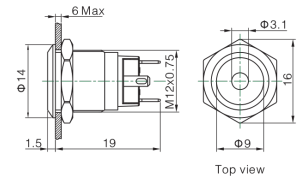
|                               |                        |                        |
|-------------------------------|------------------------|------------------------|
| Terminations:                 | P - Solder Tabs        | P - Solder Tabs        |
| Switching:                    | S.P. Push to make      | S.P. Push to make      |
| Max Rating:                   | 2A, 36Vdc              | 2A, 36Vdc              |
| Contact Resistance:           | ≥50MΩ                  | ≥50MΩ                  |
| Insulation Resistance:        | ≥1000MΩ                | ≥1000MΩ                |
| Dielectric Strength:          | 1500V, AC 50Hz, 5 Secs | 1500V, AC 50Hz, 5 Secs |
| Operating Temp Range:         | *-25°C ~ +55°C         | *-25°C ~ +55°C         |
| Operations                    |                        |                        |
| Mechanical:                   | 500,000 (min)          | 500,000 (min)          |
| Electrical:                   | 200,000 (min)          | 200,000 (min)          |
| Sealing (Front of Panel Only) | IP67                   | IP67                   |
| Shock Resistance              | IK08                   | IK08                   |
| Rear Nut Fixing Torque:       | 0.6Nm                  | 0.6Nm                  |
| Materials                     |                        |                        |
| Mouldings:                    | PA                     | PA                     |
| Tags/Terminations:            | Copper, Gold Plated    | Copper, Gold Plated    |
| Switch Body & Button:         | Stainless Steel        | Stainless Steel        |
| Contacts:                     | Silver Alloy           | Silver Alloy           |
| Thread size:                  | M12x0.75               | M12x0.75               |
| RoHS                          | Compliant              | Compliant              |

MAV0120



MAV0120

- Dot and Ring Illumination
- Prominent and Flush Profile
- 12mm Diameter
- 2A, 36 dc
- Bright daylight LEDs
- IP67 (Front of Panel Only)

**Specification****MAV0120**

|                               |                                                                                                                  |       |      |        |        |
|-------------------------------|------------------------------------------------------------------------------------------------------------------|-------|------|--------|--------|
| Terminations:                 | P - Solder Tabs                                                                                                  |       |      |        |        |
| Switching:                    | S.P. Push to make                                                                                                |       |      |        |        |
| Max Rating:                   | 2A, 36Vdc                                                                                                        |       |      |        |        |
| Profile:                      | Prominent /3<br>Flush /1                                                                                         |       |      |        |        |
| Illumination Type             | /1                                                                                                               | Dot   |      |        |        |
|                               | /2                                                                                                               | Ring  |      |        |        |
| LED Ratings                   |                                                                                                                  |       |      |        |        |
| Part No.                      |                                                                                                                  |       |      |        |        |
| Colours                       | /RD                                                                                                              | /GN   | /BL  | /OR    | /AM    |
| Luminous Intensity            | Red                                                                                                              | Green | Blue | Orange | Yellow |
| Forward Voltage               | 1.8V                                                                                                             | 2.8V  | 2.8V | 1.8V   | 1.8V   |
| Forward Current               |                                                                                                                  |       |      |        |        |
| Moulding Current              | 15mA                                                                                                             | 15mA  | 15mA | 15mA   | 15mA   |
| Illumination Voltage          | /no suffix - No resistor fitted. An Appropriate resistor must be series connected by the user. Voltages as above |       |      |        |        |
|                               | /12                                                                                                              | 12V   |      |        |        |
|                               | /24                                                                                                              | 24V   |      |        |        |
| Contact Resistance:           | ≥50MΩ                                                                                                            |       |      |        |        |
| Insulation Resistance:        | ≥1000MΩ                                                                                                          |       |      |        |        |
| Dielectric Strength:          | 1500V, AC 50Hz, 5 Secs                                                                                           |       |      |        |        |
| Operating Temp. Range:        | *-25°C ~ +55°C                                                                                                   |       |      |        |        |
| Operations                    |                                                                                                                  |       |      |        |        |
| Mechanical:                   | 500,000 (min)                                                                                                    |       |      |        |        |
| Electrical:                   | 200,000 (min)                                                                                                    |       |      |        |        |
| Sealing (Front of Panel Only) | IP67                                                                                                             |       |      |        |        |
| Shock Resistance              | IK08                                                                                                             |       |      |        |        |
| Rear Nut Fixing Torque:       | 0.6Nm                                                                                                            |       |      |        |        |
| Materials                     |                                                                                                                  |       |      |        |        |
| Mouldings:                    | PA                                                                                                               |       |      |        |        |
| Tags/Terminations:            | Copper, Gold Plated                                                                                              |       |      |        |        |
| Switch Body & Button:         | Stainless Steel                                                                                                  |       |      |        |        |
| Contacts:                     | Silver Alloy                                                                                                     |       |      |        |        |
| Thread size:                  | M12x0.75                                                                                                         |       |      |        |        |
| RoHS                          | Compliant                                                                                                        |       |      |        |        |

# 12mm Switches

## Miniature Domed Metal Vandal Resistant

None Illuminated - Metal Dome

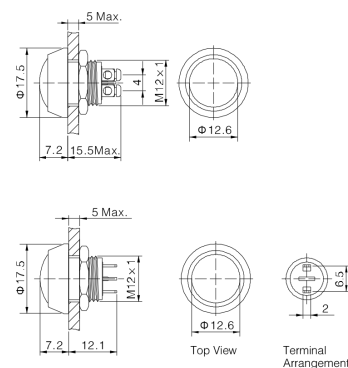


MMP0120



MMP0120

- ⬡ Raised Domed Profile
- ⬡ 12mm Diameter
- ⬡ 2A, 36Vac
- ⬡ IP65 or IP67 (Front of Panel Only)



| Specification                 | MMP0120/S                             | MMP0120/N                             |
|-------------------------------|---------------------------------------|---------------------------------------|
| Terminations:                 | P - Solder Tabs<br>S - Screw Terminal | P - Solder Tabs<br>S - Screw Terminal |
| Switching:                    | S.P. Push to make                     | S.P. Push to make                     |
| Max Rating:                   | 2A, 36Vdc                             | 2A, 36Vdc                             |
| Contact Resistance:           | ≥50MΩ                                 | ≥50MΩ                                 |
| Insulation Resistance:        | ≥1000MΩ                               | ≥1000MΩ                               |
| Dielectric Strength:          | 1500V, AC 50Hz, 5 Secs                | 1500V, AC 50Hz, 5 Secs                |
| Operating Temp Range:         | *-25°C ~ +55°C                        | *-25°C ~ +55°C                        |
| Operations                    |                                       |                                       |
| Mechanical:                   | 500,000 (min)                         | 500,000 (min)                         |
| Electrical:                   | 200,000 (min)                         | 200,000 (min)                         |
| Sealing (Front of Panel Only) | IP65 or IP67                          | IP65 or IP67                          |
| Shock Resistance              | IK08                                  | IK08                                  |
| Rear Nut Fixing Torque:       | 0.3Nm                                 | 0.3Nm                                 |
| Materials                     |                                       |                                       |
| Mouldings:                    | PBT                                   | PBT                                   |
| Tags/Terminations:            | Brass, Silver Plated                  | Brass, Silver Plated                  |
| Switch Body & Button:         | /SS Stainless Steel                   | /N - Nickel Plated Brass              |
| Contacts:                     | Silver Alloy                          | Silver Alloy                          |
| Thread size:                  | M12x1                                 | M12x1                                 |
| RoHS                          | Compliant                             | Compliant                             |

# 12mm Switches

## Miniature Domed PBT Pushbutton

Non Illuminated - PBT

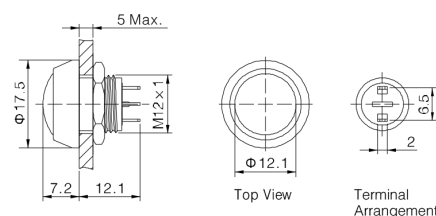
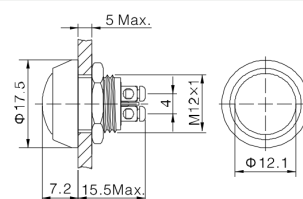


MMP0120/A



MMP0120/A

- Raised Domed Profile
- PBT Material
- 12mm Diameter
- 2A, 36Vac
- IP65 or IP67 (Front of Panel Only)



### Specification

### MMP0120/A

|                        |                           |
|------------------------|---------------------------|
| Terminations:          | P - Solder Tabs           |
| Switching:             | S.P. Push to make         |
| Max Rating:            | 2A, 36Vdc                 |
| Contact Resistance:    | $\geq 50\text{M}\Omega$   |
| Insulation Resistance: | $\geq 1000\text{M}\Omega$ |
| Dielectric Strength:   | 1500V, AC 50Hz, 5 Secs    |
| Operating Temp Range:  | *-25°C ~ +55°C            |

### Operations

|             |                 |
|-------------|-----------------|
| Mechanical: | 1,000,000 (min) |
| Electrical: | 200,000 (min)   |

|                               |              |
|-------------------------------|--------------|
| Sealing (Front of Panel Only) | IP65 or IP67 |
|-------------------------------|--------------|

|                  |      |
|------------------|------|
| Shock Resistance | IK08 |
|------------------|------|

|                         |       |
|-------------------------|-------|
| Rear Nut Fixing Torque: | 0.3Nm |
|-------------------------|-------|

### Materials

|                    |                                                                                          |
|--------------------|------------------------------------------------------------------------------------------|
| Mouldings:         | PBT                                                                                      |
| Tags/Terminations: | Brass, Silver Plated                                                                     |
| Switch Body        | /A Black Anodised                                                                        |
| Switch Button:     | /NB Nickel Plated Brass<br>/RD RED PBT<br>/GN GREEN PBT<br>/BL BLUE PBT<br>/BK BLACK PBT |

|           |              |
|-----------|--------------|
| Contacts: | Silver Alloy |
|-----------|--------------|

|              |       |
|--------------|-------|
| Thread size: | M12x1 |
|--------------|-------|

|      |           |
|------|-----------|
| RoHS | Compliant |
|------|-----------|

12mm Switches  
**Miniature Domed Illuminated Pushbutton**  
 Stainless Steel and PBT

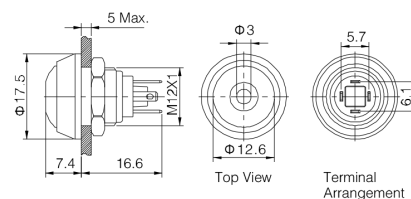


MMPI0120



MMPI0120

- Raised Domed Profile
- Dot Illumination
- Bright daylight LEDs
- 12mm Diameter
- 2A, 36Vac
- IP65 (Front of Panel Only)



## Specification

## MMPI0120

|                               |                                                                                                                     |                 |                     |                                       |                                       |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------|-----------------|---------------------|---------------------------------------|---------------------------------------|
| Terminations:                 | P - Solder Tabs                                                                                                     |                 |                     |                                       |                                       |
| Switching:                    | S.P. Push to make                                                                                                   |                 |                     |                                       |                                       |
| Max Rating:                   | 2A, 36Vdc                                                                                                           |                 |                     |                                       |                                       |
| LED Ratings                   |                                                                                                                     |                 |                     |                                       |                                       |
| Part No.                      | SS-RD                                                                                                               | SS-GN           | NN-RD               | ABK-RD                                | AG-RD                                 |
| Colours                       | Red                                                                                                                 | Green           | Red                 | Red                                   | Red                                   |
| Luminous Intensity            |                                                                                                                     |                 |                     |                                       |                                       |
| Forward Voltage               | 1.8V                                                                                                                | 2.8V            | 1.8V                | 1.8V                                  | 1.8V                                  |
| Forward Current               |                                                                                                                     |                 |                     |                                       |                                       |
| Moulding Current              | 15mA                                                                                                                | 15mA            | 15mA                | 15mA                                  | 15mA                                  |
| Illumination Voltage          | /no suffix - No resistor fitted. An Appropriate resistor must be series connected by the user.<br>Voltages as above |                 |                     |                                       |                                       |
|                               | /12                                                                                                                 |                 |                     |                                       |                                       |
| Contact Resistance:           | ≥50MΩ                                                                                                               |                 |                     |                                       |                                       |
| Insulation Resistance:        | ≥1000MΩ                                                                                                             |                 |                     |                                       |                                       |
| Dielectric Strength:          | 1500V, AC 50Hz, 5 Secs                                                                                              |                 |                     |                                       |                                       |
| Operating Temp. Range:        | *-25°C ~ +55°C                                                                                                      |                 |                     |                                       |                                       |
| Operations                    |                                                                                                                     |                 |                     |                                       |                                       |
| Mechanical:                   | 1,000,000 (min)                                                                                                     |                 |                     |                                       |                                       |
| Electrical:                   | 200,000 (min)                                                                                                       |                 |                     |                                       |                                       |
| Sealing (Front of Panel Only) | IP65                                                                                                                |                 |                     |                                       |                                       |
| Shock Resistance              | IK08                                                                                                                |                 |                     |                                       |                                       |
| Rear Nut Fixing Torque:       | 0.3Nm                                                                                                               |                 |                     |                                       |                                       |
| Materials                     |                                                                                                                     |                 |                     |                                       |                                       |
| Mouldings:                    | PBT                                                                                                                 |                 |                     |                                       |                                       |
| Tags/Terminations:            | Brass, Silver Plated                                                                                                |                 |                     |                                       |                                       |
| Switch Body & Button:         | Stainless Steel                                                                                                     | Stainless Steel | Nickel Plated Brass | Black Anodized Body, Black PBT Button | Black Anodized Body, Green PBT Button |
| Contacts:                     | Silver Alloy                                                                                                        |                 |                     |                                       |                                       |
| Thread size:                  | M12x1                                                                                                               |                 |                     |                                       |                                       |
| RoHS                          | Compliant                                                                                                           |                 |                     |                                       |                                       |



#### 12mm Miniature Vandal Resistant Stainless Steel Switch

| MAV0120 / X / X / X / X / X |                            |                |                                     |                                                                                         |                                        |  |
|-----------------------------|----------------------------|----------------|-------------------------------------|-----------------------------------------------------------------------------------------|----------------------------------------|--|
| Series                      | Button                     | Switching Type | Type of Illumination                | Illumination Colour                                                                     | Lamp Voltage                           |  |
| MAV0120                     | 1 = Flush<br>3 = Prominent | D = Momentary  | Blank = None<br>1 = Dot<br>2 = Ring | Blank = None<br>RD = RED<br>GN = GREEN<br>BL = BLUE<br>AM = AMBER/YELLOW<br>OR = ORANGE | Blank = None<br>012 = 12V<br>024 = 24V |  |

#### Examples:

MAV0120/3D = 12mm Prominent Actuator, Momentary, Non Illuminated  
 MAV0120/3D1BL024 = 12mm Prominent Actuator, Momentary, Blue Dot Illuminated, 24V  
 MAV0120/3D2GN012 = 12mm Prominent Actuator, Momentary, Green Ring Illuminated, 12V

#### 12mm Miniature Metal/Plastic Domed Pushbutton Switch

| MMPXXX / X / X / X / X / X / X                                |                                                                      |                                                                                               |                                                             |                                                                                         |                                                                                       |                                                               |
|---------------------------------------------------------------|----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------|
| Series                                                        | Body Material                                                        | Button Material & Colour                                                                      | Sealing                                                     | Illumination Colour                                                                     | Lamp Voltage                                                                          | Termination                                                   |
| MMP0120 =<br>Non Illuminated<br><br>MMP10120 =<br>Illuminated | S = Stainless Steel<br>N = Nickel Plated Brass<br>A = Black Anodized | SS = Nickel Plated Brass<br>RD = RED PBT<br>GN = GREEN PBT<br>BL = BLUE PBT<br>BK = BLACK PBT | Blank = IP65<br>67 = IP67<br>IP67<br>(non-illuminated only) | Blank = None<br>RD = RED<br>GN = GREEN<br>BL = BLUE<br>AM = AMBER/YELLOW<br>OR = ORANGE | Blank = None<br>012 = 12V<br>024 = 24V<br>Other voltages require<br>external resistor | S = Screw Terminals<br>P= Solder Terminals<br>(2.0mm x 0.5mm) |

#### Examples:

MMP0120/SSSS = 12mm, Non Illuminated, All Stainless Steel, IP65, Screw Terminals  
 MMP0120/ARD67/S = 12mm, Non Illuminated, Black anodized body, Red PBT button, IP67, screw terminals  
 MMP10120/NNBRD012P = 12mm, Illuminated, All Nickel Plated Brass with 12V Red Dot illumination, IP65, Pin Terminals

This range of panel mounting indicators consists of **many different LED and Neon types**, bezel styles and colours. The range has developed to meet the many different needs of panel design including **IP66 environmentally sealed versions** for use where a front panel seal is needed.

- Available types: Ultra-thin, Miniature, Twin unit, Miniature round and Standard
- Rating from 10A, 250V ac up to 20A, 277V ac
- Single & double pole variants available
- Push-on, solder & PCB terminals
- Illuminated and non-illuminated options
- High in-rush (ON-OFF types)
- Matching Indicators
- Splash resistant options
- Choice of bezel styles and sizes, panel cut-outs and actuators
- Choice of switching circuits including 3 position



# 8800 Thinline Rocker Switches

10A 250Vac

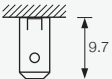
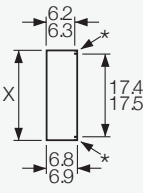
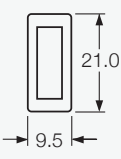
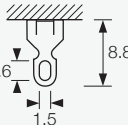
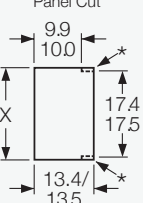
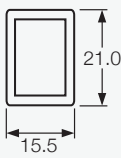
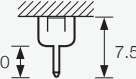
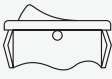


### Key Features

- Ultra thin rocker switch
- Ratings up to 15A, 250Vac
- Single and twin gang
- Panel cut out:  
Single 19.3 x 6.8  
Twin 19.3 x 13.4

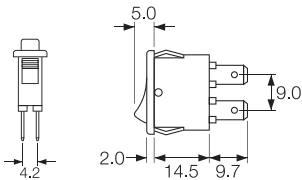
### Approvals and specifications

- 10(6)A 250Vac T100 1E4 (10,000 Operations)  
6(2)A 250Vac T100 5E4 (50,000 Operations)  
Inrush rating 10/50A 1E4 (10,000 Operations)
- UL CSA 15A 250Vac (Twin unit is 10A 250Vac)  
UL CSA 125Vac 1/2hp  
UL 100°C, file E45221, CSA file LR10990
- 3mm contact gap.

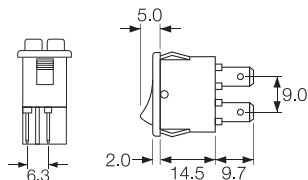
| Terminal                                                                                        | Function                                                                                                                          | Rocker                                                                              | Body                                                                                                                                                                                                                                                                          | Body Colour       | Rocker Colour     |
|-------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------|
| <b>H</b><br>  | <br>Switches are ON when pressed over terminal 1 |                                                                                     | <b>A. Single pole</b><br><br>Panel Cut<br><br>Bezel<br><br><br>*Optional profile for orientation         | <b>B</b><br>Black | <b>B</b><br>Black |
| <b>T</b><br> | <b>8800</b><br><br>ON - OFF<br>Single pole     |                                                                                     | <b>B. Single pole - Twin</b><br><br>Panel Cut<br><br>Bezel<br><br><br>*Optional profile for orientation | <b>R</b><br>Red   | <b>R</b><br>Red   |
| <b>X</b><br> | <b>8800</b><br><br>ON - OFF<br>Twin pole       |  | <br><br>Panel thickness<br>0.75-1.2<br>1.25-1.99<br>2.00-3.00<br><br>Dim X<br>19.1/19.2<br>19.3/19.4<br>19.7/19.8<br><br>Cut-outs must be punched in the direction of insertion                                                                                               | <b>W</b><br>White | <b>W</b><br>White |

Dimensions

8800VA (H terminals shown)



8800V/8800VA (H terminals shown)



| Legend                                                | Legend Colour                                                                                      | Options                                                                                                                                                                                                                                                            |
|-------------------------------------------------------|----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div><div></div><div>Blank</div></div> <div>132</div> | <div><div></div><div>Blank</div></div> <div>B</div> <div>Black</div> <div>W</div> <div>White</div> | <div>Finish</div> <div>Matt finish only.</div> <div>Colour</div> <div>Call sales for custom colours.</div> <div>A full range is available for large orders.</div> <div>Legend printing</div> <div>Select from the examples or call sales for custom legends.</div> |

Examples



▮ X8800VA



▮ X8800VA  
▮ T8800VA - - -



▮ X8800VA  
▮ T8800VA - - -



▮ H8800V/H8800VA  
▮ T8800V/T8800VA



▮ H8800V/H8800VA  
▮ T8800V/T8800VA

# 8500 Rocker Switches - Miniature

10A 250Vac Single & Double Pole



## Key Features

- Miniature rocker switch
- Ratings up to 15A, 250Vac
- Single & double pole in same body size
- Illuminated & non-illuminated
- Matching indicators
- Industry standard panel cut-out
- Rotary and push button actuator options
- BioCote antimicrobial option
- Panel cut out: 19.3 x 12.9

## Approvals and specifications

10(6)A 250Vac T125 IE4 (non lit types)  
6(4)A 250Vac T125 5E4 (50,000 Operations)  
10(6)A 250Vac T100 (lit types)

UL CSA 15A Non Ind 250Vac, 14A Ind 250Vac, 10A 277Vac  
UL CSA 250Vac 1/2hp, 125Vac 1/4hp  
UL 105°C, (non lit) file E45221, CSA file LR10990

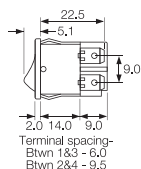
BioCote antimicrobial additive. Independently verified to ISO22196:2007.

3mm contact gap.

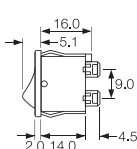
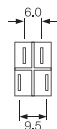
| Terminal                                                                 | Function                                                                     | Rocker                               | Body                                                                                                                                                              | Body Colour       | Rocker Colour     |
|--------------------------------------------------------------------------|------------------------------------------------------------------------------|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------|
| <b>H</b><br>                                                             | <br>ON OFF Switches are ON when pressed over terminal 1                      | <b>H</b> Slotted for custom caps<br> | <b>B</b> Standard body with terminal barrier<br>                                                                                                                  | <b>B</b><br>Black | <b>B</b><br>Black |
| <b>K</b><br>                                                             | <b>8500</b><br>ON - OFF<br>Single pole<br>(Uses terminals 1a & 2a)           | <b>R</b> Semi-rotary (not lit)<br>   | <b>BC</b> Body without terminal barrier<br>                                                                                                                       | <b>R</b><br>Red   | <b>R</b><br>Red   |
| <b>L</b><br>                                                             | <b>8503</b><br>ON (lit) - OFF<br>Single pole                                 | <b>D</b> Paddle lever (not lit)<br>  | Dimensions for snap-in fixing<br>Panel thickness      Dim X<br>0.75-1.25            19.1/19.2<br>1.25-2.00            19.3/19.4<br>2.00-3.00            19.7/19.8 | <b>W</b><br>White | <b>W</b><br>White |
| <b>L</b><br>Right angle version of K terminal available on 8500 only<br> | <b>8550</b><br>ON - OFF<br>Double pole                                       | <b>V</b> Curved (not lit)<br>        | Cut-outs must be punched in the direction of insertion                                                                                                            |                   |                   |
| <b>R</b><br>                                                             | <b>8553</b><br>ON (lit) - OFF<br>Double pole                                 | <b>X</b> Two colour (not lit)<br>    |                                                                                                                                                                   |                   |                   |
| <b>T</b><br>                                                             | <b>8580</b><br>Available with H terminals only<br>Indicator<br>UL/CSA E83363 | <b>A</b> Softline lens<br>           |                                                                                                                                                                   |                   |                   |
| <b>T</b><br>Solder                                                       | <b>P</b> Push button operation (8500 only)<br>See drawing opposite           |                                      |                                                                                                                                                                   |                   |                   |

## Dimensions

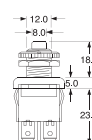
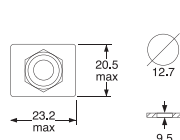
“B” body with barrier for H, T and K terminals



“BC” body w/o barrier primarily for L or R terminals (can be used for all terminals)



‘PO’ Actuator and body - push button function (8500 only)



| Insert Colour                      | Lamp Voltage             | Legend     | Legend Colour     | Options                                                                                                                         | Biocote             |
|------------------------------------|--------------------------|------------|-------------------|---------------------------------------------------------------------------------------------------------------------------------|---------------------|
| <b>X</b><br>Rocker Only            | Blank                    | Blank      | Blank             | <b>Finish</b><br>Matt finish only.                                                                                              | <b>B</b><br>Biocote |
| <b>R</b><br>Red                    | <b>2</b><br>125V Neon    | <b>076</b> | <b>B</b><br>Black | <b>Colour</b><br>Call sales for custom colours. A full range is available for large orders.                                     |                     |
| <b>W</b><br>White                  | <b>3</b><br>250V Neon    |            | <b>W</b><br>White | <b>Legend printing</b><br>Select from the examples or call sales for custom legends.                                            |                     |
| Leave blank for other Rocker types | <b>7</b><br>12V Filament |            |                   | <b>Lamp voltage</b><br>Call sales for details of available voltages.                                                            |                     |
|                                    | <b>8</b><br>24V Filament |            |                   | <b>Protective cover L167</b><br>Snaps on to bodies with V or X style rockers and A lens. This reduces panel thickness by 0.8mm. |                     |
|                                    |                          |            |                   |                                            |                     |
|                                    |                          |            |                   | <b>BioCote Antimicrobial Additive</b><br>Moulded components have antimicrobial properties using BioCote silver ion technology.  |                     |

## Examples



H8500VB ---  
T8500VB ---



H8550VB ---  
T8550VB ---



H8550HB ---  
T8550HB ---



H8550XB ---  
T8550XB ---



H8550RB Semi-rotary  
A splash proofing option



H8500PO ---  
Pushbutton option



H8553VB ---  
T8553VB ---



H8580AB ---

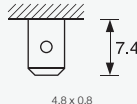
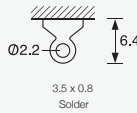
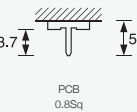
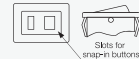
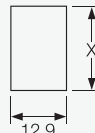
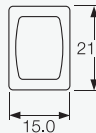


## Key Features

- |                                                |                                                               |
|------------------------------------------------|---------------------------------------------------------------|
| ⬡ Miniature rocker switch                      | ⬡ Illuminated and non illuminated                             |
| ⬡ Ratings up to 16A, 250Vac                    | ⬡ Matching indicators                                         |
| ⬡ Single & double pole                         | ⬡ Panel cut out<br>single: 19.3 x 12.9<br>double: 19.3 x 21.9 |
| ⬡ ON/OFF, C/O, biased and centre off switching |                                                               |
| ⬡ Push on, solder and PCB terminals            |                                                               |

## Approvals and specifications

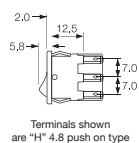
- 10(4)A 250Vac T90 (unless noted below)
- UL CSA See ratings below  
UL 65°C, file E45221, CSA file LR10990
- 3mm contact gap except where marked μ.

| Terminal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Function                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Rockers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Body                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Body Colour                                                                                                                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| <div><div>H</div><div><div>4.8 x 0.8</div><div>7.4</div></div></div> <div><div>T</div><div><div>6.4</div><div>3.5 x 0.8</div><div>0.2.2</div><div>Solder</div></div></div> <div><div>X</div><div><div>5.3</div><div>3.7</div><div>0.8</div><div>PCB</div><div>0.8Sq</div></div></div> <div><div>Double Pole switches with "X" terminals are supplied without terminal barriers</div></div> | <div><div>Approvals &amp; ratings vary with function</div><div></div><div><div>ON OFF Switches are ON when pressed over terminal 3</div><div></div></div><div><div><div>8600</div><div>10(4)A</div><div>16A 250V, 10A 277V</div><div>1/2HP 277V, 1/4HP 125V</div><div>ON - OFF</div></div><div></div></div><div><div><div>8601</div><div>6(1)A</div><div>16A 250V, 6A 277V</div><div>ON - OFF (momentary ON)</div></div><div></div></div><div><div><div>8602</div><div>10A</div><div>6A 277V</div><div>ON - OFF (momentary OFF)</div></div><div></div></div><div><div>N/A</div><div>ON - OFF</div><div>Lit</div></div><div><div><div>8610</div><div>6(1)A</div><div>10A 277V</div><div>1/2HP 277V, 1/4HP 125V</div><div>ON - ON</div></div><div></div></div><div><div><div>8611</div><div>6A 277V</div><div>ON - ON (momentary 1 side)</div></div><div></div></div><div><div><div>8620 μ</div><div>ON - OFF - ON</div></div><div></div></div><div><div><div>8630</div><div>6(1)A</div><div>UL E63363</div><div>CSA LR29381</div><div>KEMA-KUER</div><div>Indicators</div></div><div></div></div></div> | <div><div><div>V</div><div>Curved</div><div></div></div><div><div><div>V</div><div>Curved (lit)</div><div></div></div></div><div><div><div>H</div><div>Slotted for actuator (8600 and 8610 only)</div><div></div><div>Slots for snap-in buttons</div></div></div><div><div><div>F</div><div>Flat Indicator only (Single pole)</div><div></div></div></div></div> | <div><div><div>B</div><div>Single pole</div><div><div>Panel cut out</div><div></div><div>12.9</div><div>X</div><div>Bezel</div><div></div><div>15.0</div><div>21.0</div></div><div>Single Pole dimensions for snap-in fixing</div><div><div>Panel thickness</div><div>0.75-1.25</div><div>1.25-1.99</div><div>2.00-3.00</div></div><div><div>Dim X</div><div>19.1/19.2</div><div>19.3/19.4</div><div>19.7/19.8</div></div></div><div><div><div>B</div><div>(Double Pole) with terminal barrier</div><div><div>Panel cut out</div><div></div><div>21.9</div><div>X</div><div>Bezel</div><div></div><div>24.0</div><div>21.0</div></div><div>Double Pole dimensions for snap-in fixing</div><div><div>Panel thickness</div><div>0.75-1.24</div><div>1.25-1.99</div><div>2.00-3.00</div></div><div><div>Dim X</div><div>19.1/19.2</div><div>19.3/19.4</div><div>19.7/19.8</div></div></div><div><div>Cut-outs must be punched in the direction of insertion</div></div></div></div> | <div><div><div>B</div><div>Black</div></div><div><div>R</div><div>Red</div></div><div><div>W</div><div>White</div></div></div> |

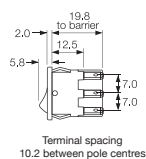


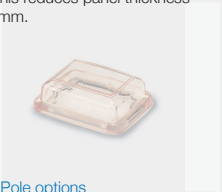
## Dimensions

Single pole



Double pole



| Rocker Colour     | Lamp Voltage             | Legend     | Legend Colour     | Options                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------|--------------------------|------------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lit (DP)          |                          |            |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>A</b><br>Amber | Blank                    | Blank      | Blank             | <p><b>Finish</b><br/>Matt finish only.</p> <p><b>Colour</b><br/>Call sales for custom colours.<br/>A full range is available for large orders.</p> <p><b>Legend printing</b><br/>Select from the examples or call sales for custom legend.</p> <p><b>Lamp voltage</b><br/>Call sales for details of available voltages.</p> <p><b>Blanking plate A8634FB</b><br/>Dummy unit to fill unused panel holes.<br/>Single pole size only.</p> <p><b>Protective covers</b><br/>L167 for SP<br/>L180 for DP<br/>Snap on to bodies with V rocker or F lens. This reduces panel thickness by 2.2mm.</p>  <p><b>Single Pole options</b><br/>Most switches shown can have single pole switching in double pole bodies.</p> |
| <b>C</b><br>Clear | <b>2</b><br>125V Neon    | <b>076</b> | <b>B</b><br>Black |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>G</b><br>Green | <b>3</b><br>250V Neon    |            | <b>W</b><br>White |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>R</b><br>Red   | <b>7</b><br>12V Filament |            |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                   | <b>8</b><br>24V Filament |            |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Lit (DP)          |                          |            |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>B</b><br>Black |                          |            |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>R</b><br>Red   |                          |            |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>W</b><br>White |                          |            |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

## Examples



H8600VB ---  
T8600VB ---



H8600VB ---  
T8600VB ---



H8630FB ---  
T8630FB ---



H8650VB ---  
T8650VB ---



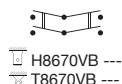
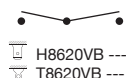
H8660VB ---  
T8660VB ---



H8653VB ---  
T8653VB ---

# 8620 & 8670 Rocker Switches

3 Positions - 10A 250Vac



## Key Features

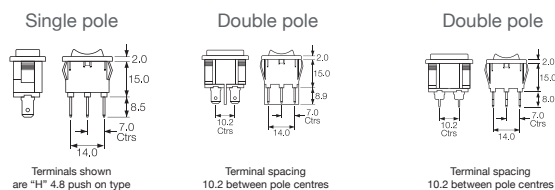
- 3 position miniature rocker switch
- Panel cut out: single: 19.3 x 12.9 double: 19.3 x 21.9
- Ratings up to 15A, 250Vac
- Single & double pole
- Centre off switching
- Push on, solder and PCB terminals
- Matching indicators

## Approvals and specifications

- 10(4)A 250Vac T90
- UL CSA 15A 277Vac (Single pole)
- UL CSA 250Vac 1/2hp (Single pole)
- UL CSA 125Vac 1/4hp (Single pole)
- UL CSA 10A 277Vac (Double pole)
- UL CSA 277Vac 1/2hp (Single & Double pole)
- UL 90°C, file E45221, CSA file LR10990
- μ contact gap.

| Terminal     | Function                                                                                  | Rocker                                              | Body                                                                                                                                      | Body Colour                              | Rocker Colour                                                                            |
|--------------|-------------------------------------------------------------------------------------------|-----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|------------------------------------------------------------------------------------------|
| <b>H</b><br> | <br><b>8620</b><br><br>ON - OFF - ON<br>Single pole                                       | <b>V</b><br><br>Curved                              | <b>B</b> Single pole<br><br>Panel thickness<br>0.75-1.24<br>1.25-1.99<br>2.00-3.00<br>Dim X<br>19.1/19.2<br>19.3/19.4<br>19.7/19.8        | <b>B</b><br>Black                        | Lit (DP)<br><b>A</b><br>Amber                                                            |
| <b>T</b><br> | <br><b>8670</b><br><br>ON - OFF - ON<br>Double pole                                       | <b>H</b><br><br>Slotted for actuator<br>(8620 only) | <b>B</b> Single pole - Twin<br><br>Panel thickness<br>0.75-1.24<br>1.25-1.99<br>2.00-3.00<br>Dim X<br>19.1/19.2<br>19.3/19.4<br>19.7/19.8 | <b>R</b><br>Red<br><br><b>W</b><br>White | <b>C</b><br>Clear<br><br><b>G</b><br>Green                                               |
| <b>X</b><br> | PCB 0.8sq<br>Double pole switches with X terminals are supplied without terminal barriers |                                                     | Cut-outs must be punched in the direction of insertion                                                                                    |                                          | <b>R</b><br>Red<br><br><b>B</b><br>Black<br><br><b>R</b><br>Red<br><br><b>W</b><br>White |

## Dimensions



| Lamp Voltage                     | Legend            | Legend Colour             | Options                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|----------------------------------|-------------------|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Blank                            | Blank             | Blank                     | <p><b>Finish</b><br/>Matt finish only.</p> <p><b>Colour</b><br/>Call sales for custom colours.<br/>A full range is available for large orders.</p> <p><b>Legend printing</b><br/>Select from the examples or call sales for custom legend.</p> <p><b>Lamp voltage</b><br/>Call sales for details of available voltages.</p> <p><b>Blanking plate A8634FB</b><br/>Dummy unit to fill unused panel holes.<br/>Single pole size only.</p> <p><b>Protective covers</b><br/>L167 for SP<br/>L180 for DP<br/>Snap on to bodies with V rocker or F lens. This reduces panel thickness by 2.2mm.</p>  <p><b>Single Pole options</b><br/>Most switches shown can have single pole switching in double pole bodies.</p> |
| <p><b>2</b><br/>125V Neon</p>    | <p><b>076</b></p> | <p><b>B</b><br/>Black</p> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <p><b>3</b><br/>250V Neon</p>    |                   | <p><b>W</b><br/>White</p> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <p><b>7</b><br/>12V Filament</p> |                   |                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <p><b>8</b><br/>24V Filament</p> |                   |                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

# 1250 Rocker Switches

10A 250Vac



C1250AP ---



C1250AN ---



### Key Features

- Standard rocker switch
- Double pole in single pole body
- Snap in or sub panel mount
- Integral terminal barrier
- Push on or PCB terminals
- Panel cut out: 27.2 x 12.4 (snap in) 26.3 x 12.4 (sub panel mount)

| Terminal                                | Function                                                                                                                          | Rocker                                 | Body                                                                                                                                                               | Body Colour                                | Rocker Colour                              |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|--------------------------------------------|
| <b>C</b><br><br>6.3 x 0.8               | <br>On when pressed over terminal 1<br><b>1250</b><br>2a 2<br>1a 1<br>ON - OFF<br>Double pole<br>Poles are 9.0mm between centres. | <b>A</b> Curved<br><br>Shown in N body | <b>N</b><br>Panel cut-out<br>Sub-panel<br>Facia<br>Bezel<br>Panel thickness<br>0.75-1.24<br>1.25-1.99<br>2.00-3.00<br>Dim X<br>26.1/26.2<br>26.3/26.4<br>26.7/26.8 | <b>B</b><br>Black<br><br><b>W</b><br>White | <b>B</b><br>Black<br><br><b>W</b><br>White |
| <b>X</b><br><br>PCB 0.8sq (N body only) | <br>On when pressed over terminal 1<br><b>1250SP</b><br>1a 1<br>ON - OFF<br>Single pole                                           | <br>Shown in P body                    | <b>P</b><br>Panel cut out<br>Bezel<br>Panel thickness<br>0.75-3.00<br><small>Cut-outs must be punched in the direction of insertion</small>                        |                                            | <b>G</b><br>Grey                           |

## Approvals and specifications



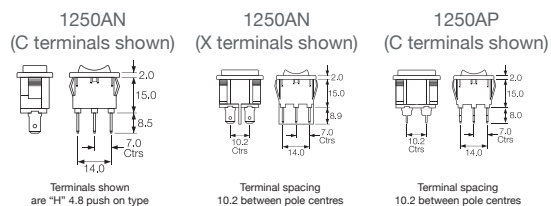
10(6)A 250Vac T100  
6A 400Vac T100  
1A 30Vdc



UL CSA 10A 250Vac  
UL CSA 16A 250Vac Resistive  
UL CSA 125Vac 1/2hp  
UL CSA 1A 30Vdc  
UL 100°C, file E45221, CSA file LR10990

3mm contact gap

## Dimensions



| Legend     | Legend Colour     | Options                                                                                                                                                                                                                                        |
|------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Blank      | Blank             | <p><b>Finish</b><br/>Matt finish only.</p> <p><b>Colour</b><br/>Call sales for custom colours.<br/>A full range is available for large orders.</p> <p><b>Legend printing</b><br/>Select from the examples or call sales for custom legend.</p> |
| <b>085</b> | <b>B</b><br>Black |                                                                                                                                                                                                                                                |
|            | <b>W</b><br>White |                                                                                                                                                                                                                                                |

# 6000 SP Splash Resistant Rocker Switches

16A 250Vac



## Key Features

- Ratings up to 20A, 277Vac
- Positive switch action
- Distinctive styling
- Illuminated & nonilluminated
- Single pole
- Panel cut out: 30.1 x 11.1mm

## Approvals and specifications

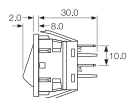
European 16(4)A 250Vac T125, 10A 400Vac T125

UL = 20A 277Vac, 1 1/2HP 250Vac 1HP 125Vac  
CSA = 20A 277Vac, 1HP 125Vac, 1/2HP 125Vac

3mm contact gap with Positive Break switching.  
Call factory for IP details.

| Terminal                                                                    | Function                                                                                                                                                                                                               | Rocker                          | Body                                                                                                                                               | Body Colour                                    | Rocker Colour                                                                                                                                                                                       | Lamp Voltage                                                                                                                                                                                                                              |
|-----------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>C</b><br><br>6.3 x 0.8                                                   | <b>6000</b><br><br>ON - OFF<br><br><b>6001</b><br><br>ON - OFF (momentary ON)                                                                                                                                          | <b>A</b><br>Softline Matt<br>   | <b>L</b><br>Panel cut-out ** Bezel<br><br>30.0/30.1<br>11.0/11.1<br>31.5<br>14.0<br>R2.0<br>Cut-outs must be punched in the direction of insertion | <b>B</b><br>Black<br><br><br><b>W</b><br>White | Lit (DP)<br><br><b>A</b><br>Amber<br><br><b>C</b><br>Clear<br><br><b>G</b><br>Green<br><br><b>R</b><br>Red<br><br>Lit (DP)<br><br><b>B</b><br>Black<br><br><b>R</b><br>Red<br><br><b>W</b><br>White | Blank<br><br><br><b>2</b><br>125V Neon<br><br><br><b>3</b><br>250V Neon<br><br><br><b>5</b><br>12Vdc LED (P Rocker)<br><br><br><b>6</b><br>24Vdc LED (P Rocker)<br><br><br><b>7</b><br>12V Filament<br><br><br><b>8</b><br>24Vdc Filament |
| <b>H</b><br><br>4.8 x 0.8                                                   | <b>6002</b><br><br>ON - OFF (momentary OFF)<br><br><b>6003</b><br><br>ON - OFF Lit                                                                                                                                     | <b>A</b><br>Softline Matt<br>   |                                                                                                                                                    |                                                |                                                                                                                                                                                                     |                                                                                                                                                                                                                                           |
| <b>S</b><br><br>9.7<br>Screw & Clamp<br>N/A for assemblies with 3 terminals | <b>6008</b><br><br>ON - OFF Lit (Unswitched neutral)<br><br><b>6009</b><br><br>ON - OFF (momentary ON) Lit (Unswitched neutral)<br><br><b>6010</b><br><br>ON - ON<br><br><b>6011</b><br><br>ON - ON (momentary 1 side) | <b>P</b><br>Lit window Matt<br> |                                                                                                                                                    |                                                |                                                                                                                                                                                                     |                                                                                                                                                                                                                                           |

## Dimensions



Panel thickness  
L 0.75 to 2.5mm  
\*\* For cut-out details  
on momentary switches  
call sales

## Integral Splash Resistance



Current carrying parts are protected from moisture. Droplets which may enter the switch are channelled out through ports in the switch body.  
For IP65 see options below

| Legend      | Legend Colour     | Options                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Blank       | Blank             | <b>G74</b><br>Protective Cover                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>1223</b> | <b>B</b><br>Black | <p><b>Finish</b><br/>Matt is standard.</p> <p><b>Colour</b><br/>Call sales for custom colours. A full range is available for large orders.</p> <p><b>Legend printing</b><br/>Select from the examples or call sales for custom legends.</p> <p><b>Lamp voltage</b><br/>Call sales for details.</p> <p><b>Protective cover</b><br/>A snap on cover is available (add G after body code), this reduces panel thickness by 2mm.</p>  <p>Panel sealing washer W46 is available, this reduces panel thickness by 1.2mm.</p> <p>Covers are not suitable for momentary types. For all options call the factory</p> |
|             | <b>W</b><br>White |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

## Examples



☐ C6000AL - - -



☐ C6000AL - - -



☐ C6010AL - - -



☐ C6003AL - - -



☐ C6003PL - - -



☐ C6030AL - - -



# 6050 DP Splash Resistant Switches

& Twin Switches - 16A 250Vac



## Key Features

- ⬡ Ratings up to 20A, 277V ac
- ⬡ BioCote antimicrobial option (Double pole only)
- ⬡ Positive switch action
- ⬡ DC LED Illumination Available
- ⬡ Distinctive styling
- ⬡ Panel cut out: 30.1 x 22.2mm
- ⬡ Illuminated & non-illuminated
- ⬡ Double pole

## Approvals and specifications

European 16(4)A 250Vac T125, 10A 400Vac T125

UL CSA (except 6054 & 6055 Switches)  
20A 277Vac, 250Vac 11/2hp, 125Vac 1hp

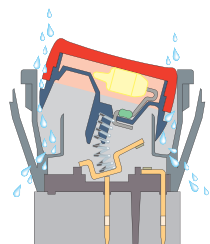
UL 100°C, file E45221, CSA file LR10990

BioCote antimicrobial additive.  
Independently verified to ISO22196:2007.

3mm contact gap with Positive Break switching.

| Terminal                                                                             | Function                                       | Rocker                          | Body                                                  | Body Colour        |
|--------------------------------------------------------------------------------------|------------------------------------------------|---------------------------------|-------------------------------------------------------|--------------------|
| <b>C</b><br><br>6.3 x 0.8                                                            | <b>6050</b><br><br>ON - OFF (momentary ON)     | <b>A</b><br><br>Softline Matt   | <b>L</b><br><br>Double Pole<br>Panel cut-out ** Bezel | Lit (DP)           |
| <b>H</b><br><br>4.8 x 0.8                                                            | <b>6051</b><br><br>ON - OFF (momentary ON)     | <b>A</b><br><br>Softline Matt   | <b>L</b><br><br>Double Pole<br>Panel cut-out ** Bezel | <b>A</b><br>Amber  |
| <b>S</b><br><br>6.3 x 0.8<br>Screw & Clamp<br>N/A for assemblies<br>with 3 terminals | <b>6052</b><br><br>ON - OFF (momentary OFF)    | <b>A</b><br><br>Softline Matt   | <b>L</b><br><br>Double Pole<br>Panel cut-out ** Bezel | <b>C</b><br>Clear  |
|                                                                                      | <b>6053</b><br><br>ON - OFF Lit                | <b>P</b><br><br>Lit window Matt | <b>L</b><br><br>Double Pole<br>Panel cut-out ** Bezel | <b>G</b><br>Green  |
|                                                                                      | <b>6054</b><br><br>ON - OFF (momentary ON) Lit | <b>P</b><br><br>Lit window Matt | <b>L</b><br><br>Double Pole<br>Panel cut-out ** Bezel | <b>R</b><br>Red    |
|                                                                                      | <b>6055</b><br><br>ON - OFF (momentary ON) Lit | <b>P</b><br><br>Lit window Matt | <b>L</b><br><br>Double Pole<br>Panel cut-out ** Bezel | <b>Un-Lit (DP)</b> |
|                                                                                      | <b>6056</b><br><br>ON - OFF (momentary ON) Lit | <b>P</b><br><br>Lit window Matt | <b>L</b><br><br>Double Pole<br>Panel cut-out ** Bezel | <b>B</b><br>Black  |
|                                                                                      | <b>6057</b><br><br>ON - OFF (momentary ON) Lit | <b>P</b><br><br>Lit window Matt | <b>L</b><br><br>Double Pole<br>Panel cut-out ** Bezel | <b>R</b><br>Red    |
|                                                                                      | <b>6058</b><br><br>ON - OFF (momentary ON) Lit | <b>P</b><br><br>Lit window Matt | <b>L</b><br><br>Double Pole<br>Panel cut-out ** Bezel | <b>W</b><br>White  |

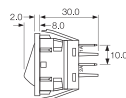
## Integral Splash Resistance



Current carrying parts are protected from moisture. Droplets which may enter the switch are channelled out through ports in the switch body.

For IP65 see options below

## Dimensions

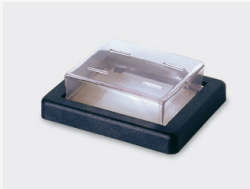


Panel thickness

L 0.75 to 2.5mm

\*\* For cut-out details on momentary switches call sales

Terminal spacing - Poles 10.5 between centres

| Rocker Colour     | Lamp Voltage                     | Legend      | Legend Colour     | Options                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | BioCote             |
|-------------------|----------------------------------|-------------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| <b>B</b><br>Black | Blank                            | Blank       | Blank             | <b>G74</b><br>Protective Cover<br><br><a href="#">Finish</a><br>Matt is standard.<br><br><a href="#">Colour</a><br>Call sales for custom colours. A full range is available for large orders.<br><br><a href="#">Legend printing</a><br>Select from the examples or call sales for custom legends.<br><br><a href="#">Protective cover</a><br>The 6050 series is a water through design. For a higher level of sealing, a snap on cover is available (add G after body code). This reduces panel thickness by 1mm.<br><br><br><br>Panel sealing washer W42 is available. This reduces panel thickness by 1.00mm. Covers are not suitable for momentary types.<br><br><a href="#">IP Ratings</a><br>Call the sales for details.<br><br><a href="#">Terminal Link P1067</a><br>connects the poles of a double pole switch or twin unit.<br><br># Mounting orientation may affect IP rating.<br><br><a href="#">BioCote Antimicrobial Additive</a> <br><br>Moulded components have antimicrobial properties using BioCote silver ion technology. For all options call sales. | <b>B</b><br>BioCote |
| <b>R</b><br>Red   | <b>2</b><br>125V Neon            | <b>1223</b> | <b>B</b><br>Black |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                     |
| <b>W</b><br>White | <b>3</b><br>250V Neon            |             | <b>W</b><br>White |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                     |
|                   | <b>5</b><br>12Vdc LED (P Rocker) |             |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                     |
|                   | <b>6</b><br>24Vdc LED (P Rocker) |             |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                     |
|                   | <b>7</b><br>12V Filament         |             |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                     |
|                   | <b>8</b><br>24Vdc Filament       |             |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                     |

## Examples



C6050AL - - -



C6053AL - - -



C6053PL - - -



C6000A/C6000AL



C6003P/C6003PL



C6003P/C6030AL

# 1500 Standard & 1300 High Inrush Switches

150A to EN61058-1 and 16A 250Vac



## Key Features

- Standard rocker switch
- Non-illuminated
- 150A inrush
- Choice of switching circuits including 3 position
- Choice of bezel styles
- Choice of panel cut outs
- Matching indicator
- Single pole
- Splash resistant option
- BioCote antimicrobial option
- DC LED Illumination Available for "P" Rocker
- Panel cut out 'A' style: 27.3 x 12.3mm

## Approvals and specifications

1500 Series 16(4)A 250Vac T125

UL CSA 16A Non Ind 250Vac, (2 posn) 250Vac 1hp, 125Vac 1/2hp, (3 posn) 250Vac 1/2hp, 125Vac 1/4hp  
1330 36Vdc 14A  
1350 72 Vdc 7A  
1500 & 1510 14 Vdc 10A  
UL 85°C, file E45221, CSA file LR10990

### In house test:

10A 24Vdc—Indicative rating only

1300 series 16(6)A 250Vac T125 5E4 (50,000 Ops.)  
150A Inrush to EN61058-1

| Terminal     | Function                                                                                             | Rocker       | Body                                                                        | Finish                        | Body Colour       | Rocker Colour     |
|--------------|------------------------------------------------------------------------------------------------------|--------------|-----------------------------------------------------------------------------|-------------------------------|-------------------|-------------------|
| <b>C</b><br> | <b>Standard 1500</b><br>ON - OFF                                                                     | <b>A</b><br> | Panel cut-out<br>Cut-outs must be punched in the direction of insertion<br> | <b>M</b><br>Matt              | <b>B</b><br>Black | Un-Lit            |
| <b>H</b><br> | <b>1501</b><br>HP rating N/A<br>ON - OFF (momentary ON)                                              | <b>B</b><br> |                                                                             | <b>G</b><br>Gloss             | <b>R</b><br>Red   | <b>B</b><br>Black |
| <b>K</b><br> | <b>1502</b><br>HP rating N/A<br>ON - OFF (momentary OFF)                                             | <b>H</b><br> |                                                                             | Applies to both Rocker & Body | <b>W</b><br>White | <b>R</b><br>Red   |
| <b>T</b><br> | <b>1510 µ</b><br>HP rating N/A<br>ON - ON                                                            | <b>V</b><br> |                                                                             |                               |                   | <b>W</b><br>White |
| <b>U</b><br> | <b>1511 µ</b><br>HP rating N/A<br>ON - ON (momentary 1 side)                                         | <b>W</b><br> |                                                                             |                               |                   | Lit               |
| <b>X</b><br> | <b>1520 µ</b><br>125V & 250V 1/2 HP<br>H terminal rated<br>T100 only<br>ON - OFF - ON                | <b>X</b><br> |                                                                             |                               |                   | <b>A</b><br>Amber |
| <b>U</b><br> | <b>1521 µ</b><br>HP rating N/A<br>H terminal rated<br>T100 only<br>ON - OFF - ON (momentary 1 side)  | <b>F</b><br> |                                                                             |                               |                   | <b>C</b><br>Clear |
| <b>U</b><br> | <b>1522 µ</b><br>HP rating N/A<br>H terminal rated<br>T100 only<br>ON - OFF - ON (momentary 2 sides) | <b>A</b><br> |                                                                             |                               |                   | <b>G</b><br>Green |
| <b>X</b><br> | <b>0430</b><br>HP rating N/A<br>H terminal rated<br>T100 only<br><b>High Inrush 1300</b><br>ON - OFF |              |                                                                             |                               |                   | <b>R</b><br>Red   |

## Dimensions

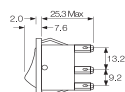
UL CSA 20A 250Vac 1hp, 125Vac 1/2hp  
UL 85°C, file E45221, CSA file LR10990

### In house test:

20A 24Vdc — Indicative rating only

BioCote antimicrobial additive. Independently verified to ISO22196:2007.

3mm contact gap except if marked  $\mu$ .



### Panel thickness

A,Q 0.75 to 3.3mm  
L,B,T 0.75 to 2.5mm  
R 0.75 to 3.0mm

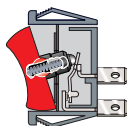
\* For cut-out details on momentary switches call sales

## Splash Resistance

### 1500 W and B splash resistant options

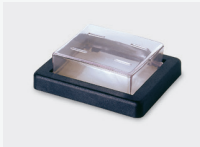
Feather edge seals and a close fitting collar protect current carrying parts from moisture.

B option has Hytrel collar/seals for enhanced protection.



### 1300 High inrush, positive break switching

The 1300 series mechanism ensures contact welds formed at switch-on are positively separated by the plunger tube acting directly on the step in the moving contact.

| Lamp Voltage               | Insert Colour     | Legend      | Legend Colour     | Options                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Biocote             |
|----------------------------|-------------------|-------------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| Blank                      | Blank             | Blank       | Blank             | <p><b>Finish</b><br/>Matt is standard.</p> <p><b>Colour</b><br/>Call sales for custom colours. A full range is available for large orders.</p> <p><b>Legend printing</b><br/>Select from the examples or call sales for custom legends.</p> <p><b>Lamp voltage</b><br/>Call sales for details.</p> <p><b>Blanking plates A0434 - -</b><br/>Dummy units to fill unused panel holes.</p> <p><b>Protective cover</b><br/>Snaps on to A, L, Q or T bodies (add G after body code in cat no.), this reduces panel thickness by 1mm.</p>  <p>Panel sealing washer W46 is available for the same body sizes, this reduces panel thickness by a further 0.8mm. Covers are not suitable for momentary types.</p> <p><b>BioCote Antimicrobial Additive</b><br/>Moulded components have antimicrobial properties using BioCote silver ion technology.</p> <p>For all options call sales.</p> | <b>B</b><br>BioCote |
| <b>2</b><br>125V Neon      | <b>R</b><br>Red   | <b>602A</b> | <b>B</b><br>Black |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                     |
| <b>3</b><br>250V Neon      | <b>W</b><br>White |             | <b>W</b><br>White |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                     |
| <b>7</b><br>12V Filament   |                   |             |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                     |
| <b>8</b><br>24Vdc Filament |                   |             |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                     |

## Examples



C1500AR ---  
T1500AR ---



C1500AL ---  
T1500AL ---



C1500XL ---  
T1500XL ---



C1510AL ---  
T1510AL ---



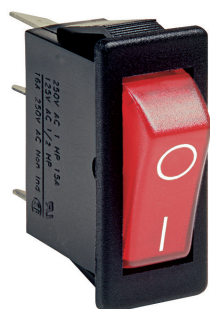
C1520AL ---  
T1520AL ---



C0430AL ---  
T0430AL ---

# 5500 Lit Rocker Series

10A 250Vac



## Key Features

- Standard rocker switch
- Illuminated
- Choice of switching circuits
- Choice of bezel styles
- Choice of panel cut outs
- Matching indicator
- Single pole
- Splash resistant option
- Panel cut out 'A' style:

## Approvals and specifications

16(4)A 250Vac T85  
10(3)A 250Vac T100, (12A 250Vac T125 for P rocker only)

UL CSA 15A 250Vac, CSA 16A Non Ind 250Vac  
UL CSA 250Vac 1hp, 125Vac 1/2hp  
UL 85°C, file E45221, CSA file LR10990

μ contact gap.

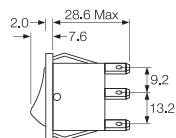
For Twin units repeat the order details for both the left and right sides.

| Terminal                       | Function                                                                                                                   | Rocker                                 | Body                                         | Body Colour       | Rocker Colour                                                                                         |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------|----------------------------------------|----------------------------------------------|-------------------|-------------------------------------------------------------------------------------------------------|
| <b>C</b><br><br>6.3 x 0.8      | Approvals & ratings vary with function<br>ON OFF Switches<br>- ON when pressed over terminal 3<br>                         | <b>A</b><br>Softline (Matt only)<br>   | <b>A</b> Panel Cut - outs<br><br>Bezel<br>   | <b>B</b><br>Black | Un-Lit<br><br><b>B</b><br>Black                                                                       |
| <b>H</b><br><br>4.8 x 0.8      | <b>5500 μ</b><br><br>ON - OFF<br>Single pole                                                                               | <b>P</b><br>Lit window (Matt only)<br> | <b>B</b><br><br><b>L</b><br>                 | <b>W</b><br>White | <b>R</b><br>Red<br><br><b>W</b><br>White                                                              |
| <b>T</b><br><br>Ø2.1<br>Solder | <b>5503 μ</b><br><br>ON - OFF<br>Lit<br>Switched neutral<br><br><b>5508 μ</b><br><br>ON - OFF<br>Lit<br>Unswitched neutral | <b>P</b><br>Lit window (Matt only)<br> | <b>Q</b><br><br><b>R</b><br><br><b>T</b><br> | <b>W</b><br>White | Lit<br><br><b>A</b><br>Amber<br><br><b>C</b><br>Clear<br><br><b>G</b><br>Green<br><br><b>R</b><br>Red |

## Dimensions

### Panel thickness

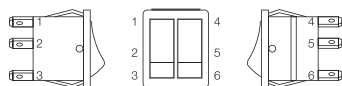
|              |               |
|--------------|---------------|
| <b>A,Q</b>   | 0.75 to 3.3mm |
| <b>L,B,T</b> | 0.75 to 2.5mm |
| <b>R</b>     | 0.75 to 3.0mm |



### Twin units

Two single switches or a switch and an indicator light can be assembled side by side in one double pole body.

For 5500 range panel cut-out details (L, B and T) call sales.



Terminal spacing -  
Poles 10.8 between centres (twin units)

For twin units the first set of order format details refer to the left hand unit, when looking at the front of the assembly.  
(This has terminal numbers 1, 2 & 3)

| Lamp Voltage                     | Legend      | Legend Colour     | Options                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------------------|-------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Blank                            | Blank       | Blank             | <p><b>Finish</b><br/>Matt is standard.</p> <p><b>Colour</b><br/>Call factory for custom colours.<br/>A full range is available for large orders.</p> <p><b>Legend printing</b><br/>Select from the examples or call factory for custom legends.</p> <p><b>Lamp voltage</b><br/>Call factory for details.</p> <p><b>Blanking plate A0434 - - (SP) A0494 - - (DP)</b><br/>Dummy units to fill unused panel holes.</p> <p><b>Protective cover</b><br/>Snaps on to A, L, Q or T bodies (add G after body in cat no.), this reduces panel thickness by 1.00mm.</p>  <p>Panel sealing washers W46 (Single Pole) and W42 (Double Pole) are available for these body types, this reduces panel thickness by 2mm.</p> <p>For all options call the factory.</p> |
| <b>2</b><br>125V Neon            | <b>602A</b> | <b>B</b><br>Black |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>3</b><br>250V Neon            |             | <b>W</b><br>White |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>5</b><br>12Vdc LED (P Rocker) |             |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>6</b><br>24Vdc LED (P Rocker) |             |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>7</b><br>12V Filament         |             |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>8</b><br>24Vdc Filament       |             |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

## Examples



C5503AL - - -



C5500AL - - -



C5503PL - - -



C5503A/  
C5430AL



C5503A/C5503AL



C5503P/C5503PL

# 1500 Twin Units Switches and Indicators

16A 250Vac



## Key Features

- Twin unit rocker switch
- Choice of switching circuits including 3 position
- Push-on, solder and PCB terminals
- Choice of bezel styles
- Choice of panel cut outs
- Matching indicator
- Single pole switches
- Splash resistant option
- Panel cut out 'A' style: 27.2 x 22.3mm

## Approvals and Specifications

16(4)A 250Vac T125

UL CSA 16A 250Vac  
UL CSA (2 posn) 250Vac 1hp, 125Vac  
1/2hp, (3 posn) 250 Vac  
1/2hp, 125Vac 1/4hp  
UL 85°C, file E45221, CSA file LR10990

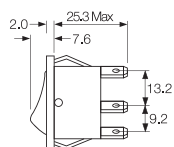
For versions with High Inrush or for 50,000 operations,  
3mm contact gap except where marked  $\mu$ .

| Terminal                          | Function                                                                                                                                | Rocker                                                                                                                                                                   | Body                                                                                                                                                                                                                                                                                                                                                                                            | Finish                                                                         | Body Colour                                | Rocker Colour                                                                                                                                                                                |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>C</b><br><br>6.3 x 0.8         | Approvals & ratings vary with function ON OFF Switches - ON when pressed over terminal 1 or 4<br>                                       | <b>A</b><br>Softline (Matt only)<br>                                                                                                                                     | Panel Cut - outs      Bezel<br><b>A</b><br><br>27.2<br>27.3<br>22.3/22.4<br>Gloss or Matt<br><b>B</b><br><br>30.0<br>30.1<br>22.1/22.2<br>Matt only<br><b>L</b><br><br>30.0<br>30.1<br>22.1/22.2<br>Matt only<br><b>Q</b><br><br>28.2<br>28.3<br>22.3/22.4<br>Gloss or matt<br><b>R</b><br><br>28.4<br>28.5<br>23.0/25.4<br>Matt only<br><b>T</b><br><br>28.2<br>28.3<br>22.3/22.4<br>Matt only | <b>M</b><br>Matt<br><br><b>G</b><br>Gloss<br><br>Applies to both Rocker & Body | <b>B</b><br>Black<br><br><b>W</b><br>White | Un-Lit<br><br><b>B</b><br>Black<br><br><b>R</b><br>Red<br><br><b>W</b><br>White<br><br>Lit<br><br><b>A</b><br>Amber<br><br><b>C</b><br>Clear<br><br><b>G</b><br>Green<br><br><b>R</b><br>Red |
| <b>H</b><br><br>4.8 x 0.8         | <b>1500</b><br><br>ON - OFF<br><br><b>1510 <math>\mu</math></b><br><br>ON - ON<br><br><b>1520 <math>\mu</math></b><br><br>ON - OFF - ON | <b>B</b><br>Softline (Matt only)<br><br><br><b>W</b><br>Softline (Matt only)<br><br><br><b>X</b><br>Softline (Matt only)<br><br><br><b>A</b><br>Softline (Matt only)<br> |                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                |                                            |                                                                                                                                                                                              |
| <b>T</b><br><br>02.1<br>Solder    |                                                                                                                                         |                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                |                                            |                                                                                                                                                                                              |
| <b>K</b><br><br>2.0<br>9.1<br>1.2 | <b>0430</b><br><br>Indicator                                                                                                            |                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                |                                            |                                                                                                                                                                                              |
| <b>X</b><br><br>4.0<br>9.1        |                                                                                                                                         |                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                |                                            |                                                                                                                                                                                              |



## Dimensions

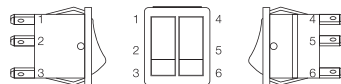
Panel thickness  
**A,Q** 0.75 to 3.3mm  
**L,B,T** 0.75 to 2.5mm  
**R** 0.75 to 3.0mm



Call sales for terminal spacing details

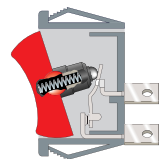
## Twin units

Two single switches or a switch and an indicator light can be assembled side by side in one double pole body.



For twin units the first set of order format details refer to the left hand unit, when looking at the front of the assembly.  
 (This has terminal numbers 1, 2 & 3)

## Splash Resistant



Feather edge seals and a close fitting collar protect current carrying parts from moisture.

B option has Hytrel collar/seals for enhanced protection.

| Insert Colour     | Lamp Voltage                     | Legend      | Legend Colour     | Options                                                                                   | Biocote             |
|-------------------|----------------------------------|-------------|-------------------|-------------------------------------------------------------------------------------------|---------------------|
| Blank             | Blank                            | Blank       | Blank             | Finish<br>Matt is standard.                                                               | <b>B</b><br>Biocote |
| <b>R</b><br>Red   | <b>2</b><br>125V Neon            | <b>602A</b> | <b>B</b><br>Black | Colour<br>Call factory for custom colours.<br>A full range is available for large orders. |                     |
| <b>W</b><br>White | <b>3</b><br>250V Neon            |             | <b>W</b><br>White | Legend printing<br>Select from the examples or call factory for custom legends.           |                     |
|                   | <b>5</b><br>12Vdc LED (P Rocker) |             |                   | Lamp voltage<br>Call factory for details.                                                 |                     |
|                   | <b>6</b><br>24Vdc LED (P Rocker) |             |                   |                                                                                           |                     |
|                   | <b>7</b><br>12V Filament         |             |                   |                                                                                           |                     |
|                   | <b>8</b><br>24Vdc Filament       |             |                   |                                                                                           |                     |

## Examples



C1500A/C1500AL



C1500A/C0430AL



C1500X/C1500XL



C1520A/C1510AL



C1500A/C1520AL



C0430A/C0430AL

# 1550 Standard and 1350 High Inrush

150A to EN61058-1 and 16A 250Vac



## Key Features

- Standard rocker switch
- 1350/53 high inrush
- Choice of switching circuits including 3 position
- Push-on, solder and PCB terminals
- Choice of bezel styles
- Choice of panel cut outs
- Matching indicator
- Double pole
- Splash resistant option
- BioCote antimicrobial option
- Panel cut out 'A' style: 27.2 x 22.3mm

## Approvals and specifications

1550 Series 16(4)A 250Vac T125

UL CSA 16A 250Vac, (2 posn) 250Vac 1hp, 125Vac 1/2hp, 1350 72 Vdc 7A  
(3 posn) 250 Vac 1/2hp, 125Vac 1/4hp.  
UL 85°C, file E45221, CSA file LR10990.

### In house test:

10A 24Vdc—Indicative rating only

1350 series 16(4)A 250Vac T85 1E4 (10,000 Ops.)  
1330 series 16(6)A 250Vac T125 5E4 (50,000 Ops.)  
150A Inrush to EN61058-1.

| Terminal                   | Function                                                                                             |                                                                 | Rocker                                                                      | Body                                                                                               |
|----------------------------|------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|-----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| <b>C</b><br><br>6.3 x 0.8  | <b>Standard 1550</b><br><br>ON - OFF                                                                 | <b>0480</b><br>X terminal N/A                                   | <b>A</b><br>Softline Matt<br>                                               | Panel cut-out Bezel<br>Cut-outs must be punched in the direction of insertion<br><br>Gloss or Matt |
| <b>H</b><br><br>4.8 x 0.8* | <b>1551</b><br>HP rating N/A<br><br>ON - OFF (momentary ON)                                          | <b>High Inrush 1350</b><br>Not W, X or B rocker<br><br>ON - OFF | <b>B</b><br>Splash resistant Softline<br>                                   | <br>Gloss or Matt                                                                                  |
| <b>K</b><br><br>2.8 x 0.8* | <b>1552</b><br>HP rating N/A<br><br>ON - OFF (momentary OFF)                                         | <b>1353</b><br>Not W, X or B rocker<br><br>ON - OFF Lit         | <b>V</b><br>Curved<br>Matt or Gloss<br><br>Gloss only Lit (not momentary)   | <b>B</b><br><br>Matt only                                                                          |
| <b>T</b><br><br>2.0 x 1.2  | <b>1553</b><br>Not W, X or B rocker<br><br>ON - OFF Lit                                              |                                                                 | <b>W</b><br>Splash resistant Curved<br>                                     | <br>Matt only                                                                                      |
| <b>U</b><br><br>3.2        | <b>1560 μ</b><br><br>ON - ON                                                                         |                                                                 | <b>P</b><br>Lit window Matt<br><br>Lit (not momentary)                      | <br>Matt only                                                                                      |
| <b>X</b><br><br>3.2        | <b>1561 μ</b><br>HP rating N/A<br><br>ON - ON (Momentary 1 Side)                                     |                                                                 | <b>X</b><br>Two colour Matt<br><br>(ON OFF only - not momentary)            | <b>Q</b><br><br>Gloss or matt                                                                      |
| <b>T</b><br><br>7.0        | <b>1562 μ</b><br>In house tests only<br><br>2 Circuit ON - ON                                        |                                                                 | <b>R</b><br>Round<br>                                                       | <b>R</b><br><br>Matt only                                                                          |
| <b>U</b><br><br>3.2        | <b>1570 μ</b><br>125V & 250V 1/2 HP<br>H terminal rated T100 only<br>H terminal rated T100 only      | <br>ON - OFF - ON                                               | <b>F</b><br>Flat Lens Gloss (0480)<br>                                      | <br>Matt only                                                                                      |
| <b>X</b><br><br>3.2        | <b>1571 μ</b><br>HP rating N/A<br>H terminal rated T100 only<br><br>ON - OFF - ON (momentary 1 side) | <br>ON - OFF - ON (momentary 2 sides)                           | <b>A</b><br>Softline lens Matt (0480 only) as F but with raised profile<br> | <br>Matt only                                                                                      |
| <b>X</b><br><br>3.2        | <b>1572 μ</b><br>HP rating N/A<br>H terminal rated T100 only                                         |                                                                 |                                                                             |                                                                                                    |

## Approvals and specifications (continued)

**UL** CSA 20A 250Vac 1hp, 125Vac 1/2hp.  
UL 72Vdc 7A, 36Vdc 14A.  
UL 85°C, file E45221, CSA file LR10990.

**In house test:**  
20A 24Vdc—Indicative rating only

BioCote antimicrobial additive. Independently verified to ISO22196:2007.

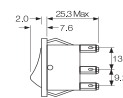
3mm contact gap except if marked  $\mu$ .

## Splash Resistance



**1300 High inrush, positive break switching**  
The 1300 series mechanism ensures contact welds formed at switch-on are positively separated by the plunger tube acting directly on the step in the moving contact.

## Dimensions



**Panel thickness**  
A,Q 0.75 to 3.3mm  
L,B,T 0.75 to 2.5mm  
R 0.75 to 3.0mm

\* For cut-out details on momentary switches call sales

| Finish                           | Body Colour       | Rocker Colour               | Insert Colour     | Lamp Voltage                     | Legend      | Legend Colour     | Options                                                                                                                |
|----------------------------------|-------------------|-----------------------------|-------------------|----------------------------------|-------------|-------------------|------------------------------------------------------------------------------------------------------------------------|
| <b>M</b><br>Matt                 | <b>B</b><br>Black | Un-Lit<br><b>B</b><br>Black | Blank             | Blank                            | Blank       | Blank             | Finish<br>Matt is standard.                                                                                            |
| <b>G</b><br>Gloss                | <b>W</b><br>White | <b>R</b><br>Red             | <b>R</b><br>Red   | <b>2</b><br>125V Neon            | <b>602A</b> | <b>B</b><br>Black | Colour<br>Call sales for custom colours.<br>A full range is available for large orders.                                |
| Applies to both<br>Rocker & Body |                   | <b>W</b><br>White           | <b>W</b><br>White | <b>3</b><br>250V Neon            |             | <b>W</b><br>White | Legend printing<br>Select from the examples or call sales for custom legends.                                          |
|                                  |                   | Lit<br><b>A</b><br>Amber    |                   | <b>5</b><br>12Vdc LED (P Rocker) |             |                   | Lamp voltage<br>Call sales for details.                                                                                |
|                                  |                   | <b>G</b><br>Green           |                   | <b>6</b><br>24Vdc LED (P Rocker) |             |                   | Blanking plates A0494<br>Dummy units to fill unused panel holes.                                                       |
|                                  |                   | <b>C</b><br>Clear           |                   | <b>7</b><br>12V Filament         |             |                   | Protective cover<br>Snaps on to A, L, Q or T bodies (add G after body in cat no). This reduces panel thickness by 1mm. |
|                                  |                   | <b>R</b><br>Red             |                   | <b>8</b><br>24Vdc Filament       |             |                   |                                                                                                                        |

## Examples



C1350AL ---



C1550XL ---



C1553PL ---



C1553RA ---  
Shown with M614  
bezel cover



Optional snap-in  
M441 barrier



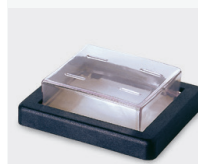
C1553AA with M616  
guard Cut-out  
22.0/22.1 x 29.4/29.5  
Guard accepts "A"  
body only



C0480RA ---  
Shown with  
M614 bezel  
cover



C0480AL ---



Panel sealing washer W42 is available for the above body sizes. This reduces panel thickness by a further 1.00mm.  
Covers are not suitable for momentary types.

**BioCote Antimicrobial Additive**

Moulded components have antimicrobial properties using BioCote silver ion technology.

For all options call sales.

# 1550 Standard & 1350 High Inrush Switches

150A to EN61058-1 and 16A 250Vac/250Vdc



## Key Features

- Standard rocker switch
- 1350/53 high inrush
- Choice of switching circuits including 3 position
- Push-on, solder and PCB terminals
- Choice of bezel styles
- Choice of panel cut outs
- Matching indicator
- Double pole
- Option with guard & cover
- DC LED Illumination Available for "P" Rocker
- Bezel size 'G' style 32.0 x 25.0

## Approvals and specifications

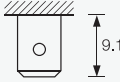
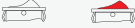
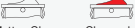
1550 Series 16(4)A 250Vac T125

UL CSA 16A 250Vac, (2 posn) 250Vac 1hp, 125Vac 1/2hp, (3 posn) 250 Vac 1/2hp, 125Vac 1/4hp. UL 85°C, file E45221, CSA file LR10990.

**In house test:**  
10A 24Vdc— Indicative rating only

1350 Series

UL CSA 20A 250Vac 1hp, 125Vac 1/2hp. UL 72Vdc 7A, 36Vdc 14A, UL 85°C, file E45221, CSA file LR10990.

| Terminal                                                                                                                       | Function                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Rocker                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Body                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Finish                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Body Colour                                                                                                 | Rocker Colour                                               |                                                                                                                                                                                                                                                |
|--------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div>C</div> <div></div> <div>6.3 x 0.8</div> | <div>Standard 1550</div> <div>1551</div> <div>HP rating N/A</div> <div>1552</div> <div>HP rating N/A</div> <div>1553</div> <div>Not W, X or B rocker</div> <div>1560 μ</div> <div>1561 μ</div> <div>HP rating N/A</div> <div>1562 μ</div> <div>In house tests only</div> <div>1570 μ</div> <div>125V &amp; 250V 1/2 HP<br/>H terminal rated T100 only<br/>terminal rated T100 only</div> <div>1571 μ</div> <div>HP rating N/A<br/>H terminal rated T100 only</div> <div>1572 μ</div> <div>HP rating N/A<br/>H terminal rated T100 only</div> <div>High Inrush 1350</div> <div>Not W, X or B rocker</div> <div>1353</div> <div>Not W, X or B rocker</div> <div>PCB 0.8Sq*</div> <div>*Contact sales for details on 1350 series</div> | <div></div> <div>ON - OFF</div> <div></div> <div>ON - OFF<br/>(momentary ON)</div> <div></div> <div>ON - OFF<br/>(momentary OFF)</div> <div></div> <div>ON - OFF<br/>Lit</div> <div></div> <div>ON - ON</div> <div></div> <div>ON - ON<br/>(Momentary 1 Side)</div> <div></div> <div>ON - ON<br/>2 Circuit</div> <div></div> <div>ON - OFF - ON</div> <div></div> <div>ON - OFF - ON<br/>(momentary 1 side)</div> <div></div> <div>ON - OFF - ON<br/>(momentary 2 sides)</div> <div></div> <div>ON - OFF</div> <div></div> <div>ON - OFF<br/>Lit</div> | <div>A</div> <div>Softline Matt</div> <div></div> <div>V</div> <div>Curved</div> <div></div> <div>Matt or Gloss</div> <div></div> <div>Gloss only<br/>Lit (not momentary)</div> <div>P</div> <div>Lit window Matt</div> <div></div> <div>Lit (not momentary)</div> | <div>Panel cut-out</div> <div>Bezel</div> <div>Cut-outs must be punched in the direction of insertion</div> <div>B</div> <div></div> <div>22.1/22.2</div> <div>30.0<br/>30.1</div> <div>Matt only</div> <div></div> <div>25.0</div> <div>32.0</div> <div>L</div> <div></div> <div>22.1/22.2</div> <div>28.2<br/>28.3</div> <div>Matt only</div> <div></div> <div>25.0</div> <div>32.0</div> | <div>M</div> <div>Matt</div> <div>G</div> <div>Gloss</div> <div>Applies to both<br/>Rocker &amp; Body</div> | <div>B</div> <div>Black</div> <div>W</div> <div>White</div> | <div>Un-Lit</div> <div>B</div> <div>Black</div> <div>R</div> <div>Red</div> <div>W</div> <div>White</div> <div>Lit</div> <div>A</div> <div>Amber</div> <div>G</div> <div>Green</div> <div>C</div> <div>Clear</div> <div>R</div> <div>Red</div> |

## Splash Resistance



### In house test:

20A 24Vdc—Indicative rating only

BioCote antimicrobial additive. Independently verified to ISO22196:2007.

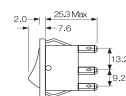
3mm contact gap except if marked  $\mu$ .



### 1350 High inrush, positive break switching

The 1350 series mechanism ensures contact welds formed at switch-on are positively separated by the plunger tube acting directly on the step in the moving contact.

## Dimensions



### Panel thickness

G, H 0.75 to 2.5mm

Terminal spacing - Poles 10.2 between centres

\* For cut-out details on momentary switches call sales

| Insert Colour     | Lamp Voltage                     | Legend      | Legend Colour     | Options                                                                                                              | Biocote             |
|-------------------|----------------------------------|-------------|-------------------|----------------------------------------------------------------------------------------------------------------------|---------------------|
| Blank             | Blank                            | Blank       | Blank             | Finish<br>Matt is standard.                                                                                          | <b>B</b><br>Biocote |
| <b>R</b><br>Red   | <b>2</b><br>125V Neon            | <b>602A</b> | <b>B</b><br>Black | Colour<br>Call sales for custom colours.<br>A full range is available for large orders.                              |                     |
| <b>W</b><br>White | <b>3</b><br>250V Neon            |             | <b>W</b><br>White | Legend printing<br>Select from the examples or call sales for custom legends.                                        |                     |
|                   | <b>5</b><br>12Vdc LED (P Rocker) |             |                   | Lamp voltage<br>Call sales for details.                                                                              |                     |
|                   | <b>6</b><br>24Vdc LED (P Rocker) |             |                   | BioCote Antimicrobial Additive  |                     |
|                   | <b>7</b><br>12V Filament         |             |                   | Moulded components have antimicrobial properties using BioCote silver ion technology.                                |                     |
|                   | <b>8</b><br>24Vdc Filament       |             |                   |                                                                                                                      |                     |

## Examples



C1553AH - - -



C1550AH - - -

# R13 Round Rocker Switches

10A 250Vac



## Key Features

- ⬢ Miniature round rocker switch
- ⬢ Ratings up to 10A, 250Vac
- ⬢ Single & double pole
- ⬢ Illuminated & nonilluminated, neon and LED
- ⬢ Choice of actuators
- ⬢ Matching indicator
- ⬢ Panel cut out: 20.2 dia.

## Approvals and specifications

⚡ SP 10(4)A 250Vac T85 1E4

⚡ DP 10(4)A 250Vac T85 1E4

UL CSA SP 16A 125Vac & 10A 250Vac  
UL CSA DP 16A 125Vac, 10A 250Vac, 10A 28Vdc  
UL 85°C, file E67774(S), CSA file LR45128

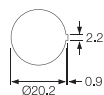
### RoHS compliant

Single pole has  $\mu$  contact gap.

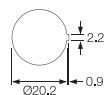
### Special products

Are made to order and can be supplied with a range of body and rocker / lens colours, print & lamp voltage.

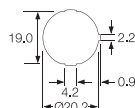
## Dimensions



Snap fixing into panel thickness up to 3.0

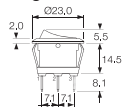


Snap fixing into 2.0 to 3.0mm panels

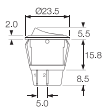


Snap fixing into 0.7 to 3.0mm panels

### Single Pole



### Double Pole



### Protective cover L188



Snap on to bodies (not R13 211 or R13 112LP), this reduces maximum acceptable panel thickness to 2.4mm.

## Examples



R13 112B NAA



R13 112A AAA



R13 112A2 ---

**R13 / 112 / A / B / B / 3 / 2 / 602A / W / L188**

Series

Type

Function

Body Colour

Rocker Colour

Insert Colour

Lamp Voltage

Legend

Legend Colour

Legend Colour

## Product details



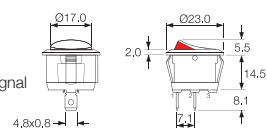
1 2  
SP ON - OFF  $\mu$   
**Cat no.**  
**R13 112A AAA**



1 2 3  
SP ON - OFF  $\mu$   
Lit 230V  
**Cat no.**  
**R13 112B NAC**



1 2  
SP ON - OFF  $\mu$   
Bright colour ON signal  
**Cat no.**  
**R13 112A2 - -**



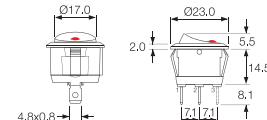
1 2  
SP ON - OFF  $\mu$   
**Cat no.**  
**R13 112A AAB**



1 2 3  
SP ON - ON  $\mu$   
**Cat no.**  
**R13 112C AAA**



1 2 3  
SP ON - OFF  $\mu$   
Lit Window  
**Cat no.**  
**R13 112B2 - -**



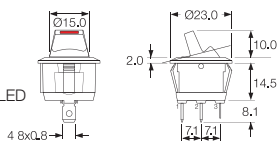
1 2 3  
SP ON - OFF  $\mu$   
Lit 230V  
**Cat no.**  
**R13 112B NAA**



1 2 3  
SP ON - OFF - ON  $\mu$   
**Cat no.**  
**R13 112D AAA**



12  
SP ON - OFF  $\mu$   
Paddle tip has red LED  
**Cat no.**  
**R13 112LP - -**



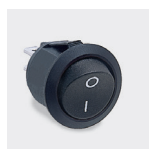
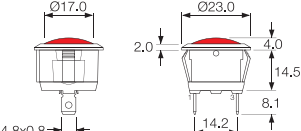
1 2 3  
SP ON - OFF  $\mu$   
Lit 230V  
**Cat no.**  
**R13 112B NAB**



SP ON - OFF  $\mu$   
(Momentary ON)  
**Cat no.**  
**R13 208F AAA\***



1 3  
Indicator light  
**Cat no.**  
**R9 92B - - -**



1 2 3  
DP ON - OFF  
**Cat no.**  
**R13 244A AAA**



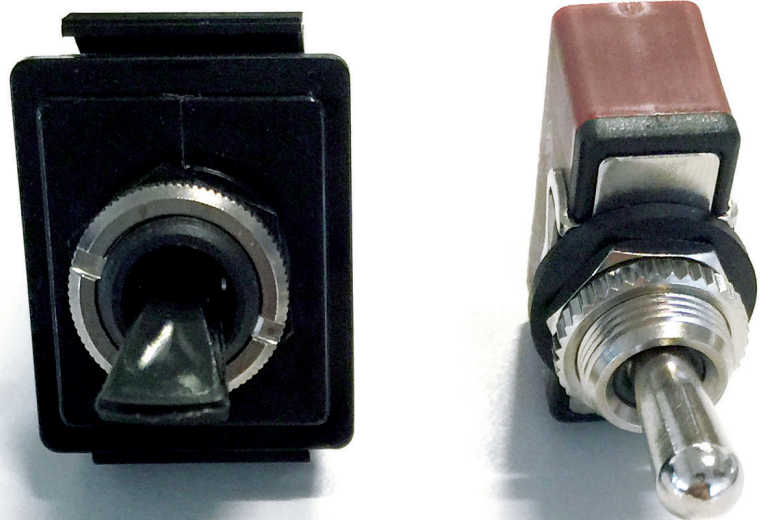
DP ON - OFF  
Lit 230V  
**Cat no.**  
**R13 244B NAA**



## Toggle Switches

Well known for their quality and reliability, **Bulgin's toggle switches** are **cost effective** solutions to many existing applications. These switches offer features at an attractive price point often well below that of the existing competition.

- ⬢ Nylon and Metal switch variants
- ⬢ Multiple Lever Options
- ⬢ Ratings up to 20A, 250V ac - 277V ac
- ⬢ IP67 panel seal versions, supplied complete with gaskets (3900 Series – All Variants)
- ⬢ Single and double pole
- ⬢ Choice of circuit options including 3 position and momentary
- ⬢ Mounting hole: 12.7mm diameter.
- ⬢ Sealing accessories available
- ⬢ Quick Connect, Solder, Screw and PCB Termination Options



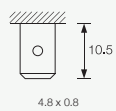
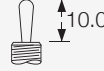
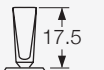
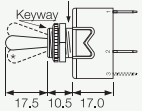
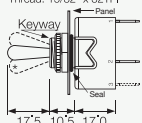
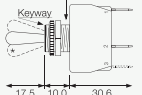
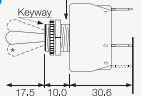
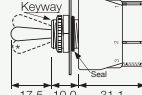
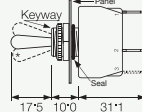
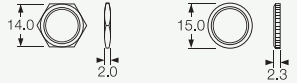
# 3900 Metal Toggle Switches

16A 250Vac - IP67 Sealed Versions



## Key Features

- Metal toggle switches
- Ratings up to 20A, 277V ac
- Single and double pole
- Choice of circuits including 3 position and momentary
- Sealed version supplied complete with gaskets
- Panel seal version to IP67
- 6.3mm terminals
- Guard option

| Terminal                                                                                                                             | Function                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Actuator                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Body                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Options                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div><div>C</div><div><p>4.8 x 0.8</p></div></div> | <div><div><p>Single Pole</p></div><div><b>3900</b><br/>ON - OFF<br/></div><div><b>3901</b><br/>ON - OFF<br/>(momentary ON)<br/></div><div><b>3902</b><br/>ON - OFF<br/>(momentary OFF)<br/></div><div><b>3910</b><br/>ON - ON<br/></div><div><b>3911</b><br/>ON - ON<br/>(momentary 1 side)<br/></div><div><b>3920</b><br/>ON - OFF - ON <math>\mu</math><br/></div><div><b>3921</b><br/>ON - OFF - ON <math>\mu</math><br/>(momentary 1 side)<br/></div><div><b>3922</b><br/>ON - OFF - ON <math>\mu</math><br/>(momentary 2 sides)<br/></div></div> | <div><div><p>Double Pole</p></div><div><b>3950</b><br/>ON - OFF<br/></div><div><b>3951</b><br/>ON - OFF<br/>(momentary ON)<br/></div><div><b>3952</b><br/>ON - OFF<br/>(momentary OFF)<br/></div><div><b>3960</b><br/>ON - ON<br/></div><div><b>3961</b><br/>ON - ON<br/>(momentary 1 side)<br/></div><div><b>3970</b><br/>ON - OFF - ON <math>\mu</math><br/></div><div><b>3971</b><br/>ON - OFF - ON <math>\mu</math><br/>(momentary 1 side)<br/></div><div><b>3972</b><br/>ON - OFF - ON <math>\mu</math><br/>(momentary 2 sides)<br/></div></div> | <div><div><div>A</div><div><p>10.0</p><p>Metal toggle finish is nickel plate</p></div></div><div><div>B</div><div><p>17.5</p><p>Metal toggle finish is nickel plate</p></div></div><div><div>D</div><div><p>25.4</p></div></div><div><div>E</div><div><p>38.1</p><p>Metal toggle finish is nickel plate</p></div></div><div><div>F</div><div><p>17.5</p><p>Metal toggle finish is nickel plate</p></div></div></div> | <div><div><div>A</div><div>Single pole<br/>Thread: 15/32" x 32TPI<br/><p>17.5 10.5 17.0</p></div></div><div><div>E</div><div>Panel sealed, single pole<br/>Thread: 15/32" x 32TPI<br/><p>17.5 10.5 17.0</p></div></div><div><div>A</div><div>Double pole<br/>Thread: 15/32" x 32TPI<br/><p>17.5 10.0 30.6</p></div></div><div><div>B</div><div>Thread: 15/32" x 32TPI<br/><p>17.5 10.0 30.6</p></div></div><div><div>F</div><div>Thread: 15/32" x 32TPI<br/><p>17.5 10.0 31.1</p><p>Switches with F toggles have double pole bodies, regardless of circuit</p></div></div><div><div>G</div><div>Panel sealed, double pole<br/>Thread: 15/32" x 32TPI<br/><p>17.5 10.0 31.1</p></div></div></div> | <div><div>Neck Seal M539<br/>Actuator is visible</div><div></div><div>Cover M1080</div><div></div><div>Covers have internal nylon nuts</div><div>M1080-2</div><div></div><div>Covers have internal metal hex nuts</div><div>Fixing nuts<br/>Nickel plated brass are supplied</div><div></div><div>Knurled Front nut<br/>Panel thickness 4.0 with backnut</div><div>Plate P236<br/>Plate SP or DP</div><div></div></div> |

## Approvals and specifications

UL/CSA Ratings 3901, 3902, 3920, 3921, 3922  
16A, 277Vac  
1 HP, 250Vac

7A, 72Vdc  
14A, 36Vdc

3910, 3901, 3952, 3960, 3961, 3970, 3971, 3972  
16A, 277Vac  
1 HP, 250Vac  
1/2 HP, 125Vac  
7A, 72Vdc  
14A, 36Vdc

3900, 3950  
20A, 277Vac  
1 HP, 250Vac  
1/2 HP, 125Vac  
7A, 72Vdc  
14A, 36Vdc

ENEC Ratings  
3900, 3901, 3902, 3950, 3952, 3960, 3961  
16(4)A 250Vac

3910, 3911, 3920, 3921, 3922, 3951, 3970, 3972  
10 4)A 250Vac

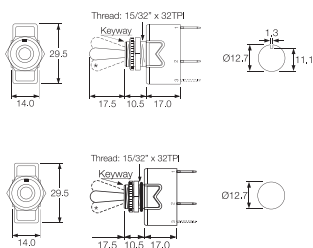
Approvals and ratings vary with function.  
3mm contact gap except where marked  $\mu$ .

\* CSA approval for A and B bodies only

## Dimensions mm) \* Indicates ON position (for ON - OFF switches)

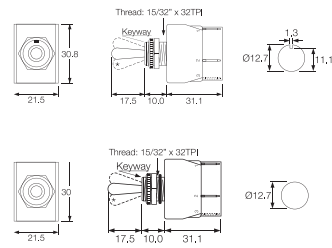
### Single pole

(C terminals shown)



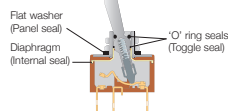
### Double pole

(C terminals shown with barrier)



### Toggle Switch - sealed version

BE and BF types



### Guard TG1-RED



## Examples



C3900BE - - -



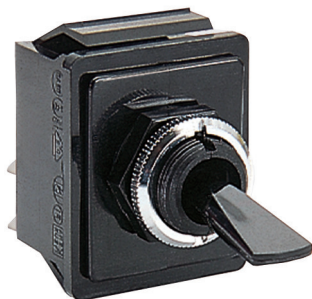
C3920BA - - -



C3950BF - - -



C3972BB - - -



## Key Features

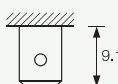
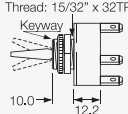
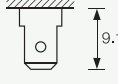
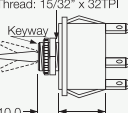
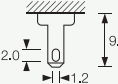
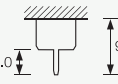
- Nylon toggle switches
- Ratings up to 20A, 250V ac
- Single and double pole
- Wide choice of terminals
- Choice of circuit options including 3 position
- Flat & round actuator options

## Approvals and specifications

16(4)A 250Vac T85

UL 20A 250Vac Non Ind (Single pole)  
 UL 16A 250Vac Non Ind (Double pole)  
 UL CSA (2 pos types) 250Vac 1hp, 125Vac 1/2hp  
 UL CSA (3 pos types) 250Vac 1/2hp, 125Vac 1/4hp  
 CSA 16A 250Vac Non Ind  
 UL 85°C, file E45221, CSA file LR10990  
 UL and CSA N/A on momentary types

Selective "A, B, C" and "OFF, A, A+B" circuits at 5 amp also available.  
 3mm contact gap except where marked  $\mu$ .

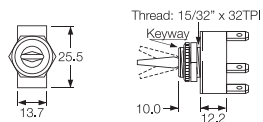
| Terminal                                                                                        | Function                                                                                                                                                                                                            | Actuator                                                                                                                                                                                                            | Body                                                                                                                                  | Options                                                                                                                                                                       |                                                                                                                                                                       |
|-------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>C</b><br> | <br>Single Pole<br><b>1700</b><br>ON - OFF<br> | <br>Double Pole<br><b>1750</b><br>ON - OFF<br> | <b>H</b><br>                                       | <b>O</b> Single pole<br>Thread: 15/32" x 32TPI<br>                                         | Neck Seal M539<br>Material - Nitrile<br>(H & R Actuators)<br>Actuator visible<br> |
| <b>H</b><br> | <b>1710 <math>\mu</math></b><br>ON - ON<br>                                                                                      | <b>1760 <math>\mu</math></b><br>ON - ON<br>                                                                                      | <b>O</b> Double Pole<br>Thread: 15/32" x 32TPI<br> | Cover M1080<br>Material - EPDM<br>(R Actuator only)<br>                                  |                                                                                                                                                                       |
| <b>K</b><br> | <b>1720 <math>\mu</math></b><br>ON - OFF - ON<br>                                                                                | <b>1770 <math>\mu</math></b><br>ON - OFF - ON<br>                                                                                | <b>R</b><br>                                       | Cover M531<br>Material - PVC<br>(R Actuator only)<br>Covers have internal nylon nuts<br> |                                                                                                                                                                       |
| <b>T</b><br> | <b>1720 <math>\mu</math></b><br>ON - OFF - ON<br>                                                                                | <b>1770 <math>\mu</math></b><br>ON - OFF - ON<br>                                                                                | <b>R</b><br>                                       | Fixing nuts<br>(Standard is M506 & T92)<br>T5 Hex brass<br>M506 Hex nylon<br>            |                                                                                                                                                                       |
| <b>X</b><br> | <b>1721 <math>\mu</math></b><br>ON - OFF - ON $\mu$<br>(momentary 1 side)<br>                                                    |                                                                                                                                                                                                                     |                                                                                                                                       | T92 Knurled brass - slotted<br>                                                          |                                                                                                                                                                       |
|                                                                                                 | <b>1722</b><br>ON - OFF - ON $\mu$<br>(momentary 2 sides)<br>                                                                    |                                                                                                                                                                                                                     |                                                                                                                                       | M279 Knurled nylon<br>                                                                   |                                                                                                                                                                       |
|                                                                                                 |                                                                                                                                                                                                                     | The switch is on between centre terminals (2 & 5) and the terminals over which the lever is positioned.                                                                                                             |                                                                                                                                       | Plate P236<br>Plate SP or DP<br>                                                         |                                                                                                                                                                       |

## Dimensions

mm) \* Indicates ON position (for ON - OFF switches)

### Single pole

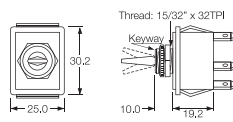
(C terminals shown)



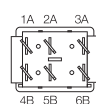
Optional  
F00232PAAA  
plate SP or DP

### Double pole

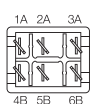
(C terminals shown)



#### Without barrier



#### With barrier



## Examples



C1700R - -



C1700H - -



C1760R - -



C1750H - -

Long recognised as a leader in refrigerator door switches, Bulgin's wide range of types and configurations will suit almost any need. With both double pole and single pole options, our switches are not only ideal for traditional refrigerator and freezer applications but can and have been used in a variety of door applications as well.

- ⬢ Door switches
- ⬢ Switch rating from 0.2A, 250V ac up to 5A, 250Vac
- ⬢ Splash resistant variants
- ⬢ Choice of actuators
- ⬢ Momentary on and momentary off switching



# 0055 Door Switches



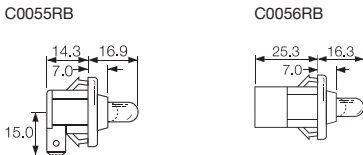
### Key Features

- ⬡ Ratings up to 0.2A, 250V ac
- ⬡ High temperature rating up to 125°C
- ⬡ Long overtravel
- ⬡ Choice of terminal orientation

### Approvals and specifications

⚡ 0055 & 0056  
0.2(0.2)A 250Vac 25T125 5E4  
(50,000 operations)  
  
μ contact gap

### Dimensions and Properties



| Terminal                | Function                                                             | Actuator     | Body                                                                                  | Options                                                                                                     |
|-------------------------|----------------------------------------------------------------------|--------------|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| <b>C</b><br><br>6.3x0.8 | <b>0055</b><br><br>ON - OFF<br>(momentary OFF)<br>90° terminals      | <b>R</b><br> | <b>B</b><br>Panel cut - out<br><br>Ø19.05<br>19.2                                     | <b>Finish</b><br>Gloss finish only<br><br><b>Colour</b><br>White or black<br>Call sales for custom colours. |
| <b>H</b><br><br>4.8x0.8 | <b>0056</b><br><br>ON - OFF<br>(momentary OFF)<br>straight terminals |              | Panel thickness<br>0055 1.0 - 1.6<br>0056 1.0 - 2.6<br><br>Flange<br><br>Ø24.1<br>6.6 |                                                                                                             |



# 3005 Refrigerator Door Switches

Splash Resistant



## Key Features

- Door switches
- Momentary on and momentary off switching
- Splash resistant
- Choice of terminal orientation
- Choice of actuators

## Approvals and specifications

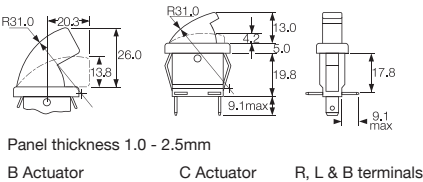
3005 25W 25T85 5E4 (50,000 Operations) 250Vac  
3006 65W 25T85 5E4 (50,000 Operations) 250Vac

UL 0.3A 250Vac (Black Versions Only)  
UL 0.2A 125Vac (Black Versions Only)

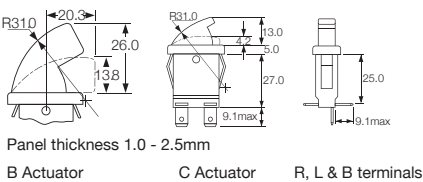
μ contact gap

## Dimensions and Properties

3005



3006



| Terminal                | Function                                                                            | Actuator             | Body                                                                                                                             | Options                                                                                                                                                    |
|-------------------------|-------------------------------------------------------------------------------------|----------------------|----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>C</b><br><br>6.3x0.8 | <b>3005</b><br><br>ON - OFF<br>(momentary OFF)<br>1mm max travel<br>to OFF position | <b>B</b><br><br>26.0 | <b>R</b> <b>L</b> <b>B</b><br><br>Terminal direction<br>(viewed from hinge end)<br><br>Panel cut - out<br>Bezel<br>Bezel Profile | <b>Finish</b><br>Gloss finish only<br><br><b>Colour</b><br>White or black<br>Call sales for custom colours.<br>A full range is available for large orders. |
| <b>H</b><br><br>4.8x0.8 | <b>3006</b><br><br>ON - OFF<br>(momentary ON)<br>3mm min travel<br>to ON position   | <b>C</b><br><br>13.0 |                                                                                                                                  |                                                                                                                                                            |

# 3100 Refrigerator Door Switches

Splash resistant



### Key Features

- Door switches
- Ratings up to 5A, 250V ac
- Splash resistant
- Changeover, momentary ON and momentary OFF
- Choice of actuators

### Approvals and specifications

5A 250Vac 25T85 5E4 (50,000 Operations)

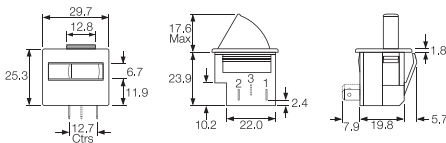
UL CSA 5A 250Vac  
UL 85°C, file E45221, CSA file LR10990

μ contact gap.  
Sealed terminals option available.

### Dimensions and Properties

3101 uses terminals 1,2  
3102 uses terminals 1,2  
3111 uses terminals 1,2,3

For details of actuator travel and switching angles call sales.



| Terminal     | Function                                                                                                                                                         | Actuator                                                     | Body         | Colour                                                                     | Options                                                                                                                                                    |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|--------------|----------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>C</b><br> | <br><b>3101</b><br><br>ON - OFF<br>(momentary OFF)<br><br><b>3102</b><br><br>ON - OFF<br>(momentary OFF)<br><br><b>3111</b><br><br>ON - ON<br>(momentary 1 side) | <b>A</b><br><br><b>B</b><br><br><b>C</b><br><br><b>D</b><br> | <b>A</b><br> | <b>W</b><br>White<br><br><b>B</b><br>Black<br><br><b>PW</b><br>Polar White | <b>Finish</b><br>Gloss finish only<br><br><b>Colour</b><br>White or black<br>Call sales for custom colours.<br>A full range is available for large orders. |

# 3140 Refrigerator Door Switches

Splash resistant



HK3141AA ---



H3145AA ---

## Key Features

- Door switches
- Ratings up to 5A, 250V ac
- Splash resistant
- Momentary action
- Choice of actuators
- 2 circuit switch

## Approvals and specifications

5A 250Vac 25T85 5E4 (50,000 Operations)

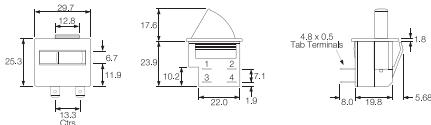
UL CSA 5A 250Vac  
UL 85°C, file E45221, CSA file LR10990

3141,  $\mu$  contact gap.  
3145 and 3146, 3mm contact gap.

Sealed terminals option available.

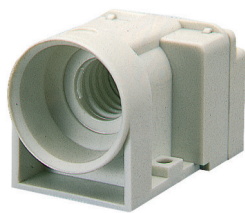
## Dimensions and Properties

3141 uses terminals 1,2,3,4  
3145 uses terminals 3,4  
3146 uses terminals 1,2



| Terminal                                                                                                                                  | Function                                       | Actuator                                                     | Body         | Colour                                                                     | Options                                                                                                                                                                                                                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|--------------------------------------------------------------|--------------|----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>H</b><br><br>4.8x0.8                                                                                                                   | <br><b>3141</b><br><br>ON - OFF<br>(momentary) | <b>A</b><br><br><b>B</b><br><br><b>C</b><br><br><b>D</b><br> | <b>A</b><br> | <b>W</b><br>White<br><br><b>B</b><br>Black<br><br><b>PW</b><br>Polar White | <b>Finish</b><br>Gloss finish only<br><br><b>Colour</b><br>White or black<br>Call sales for custom colours.<br>A full range is available for large orders.<br><br>Order as:<br>3151 (3141 type)<br>3155 (3145 type)<br>3156 (3146 type) |
| <b>K</b><br><br>2.8x0.8                                                                                                                   | <b>3145</b><br><br>ON - OFF<br>(momentary OFF) |                                                              |              |                                                                            |                                                                                                                                                                                                                                         |
| Standard format is<br>H terminals<br>in positions 1 & 2<br>and K terminals<br>in positions 3 & 4<br>For sealed<br>terminals call<br>sales | <b>3146</b><br><br>ON - ON<br>(momentary ON)   |                                                              |              |                                                                            |                                                                                                                                                                                                                                         |

# 0305 Combined Switch / Lampholder for Freezers



C0305RT - - -  
C0305LT - - -

### Key Features

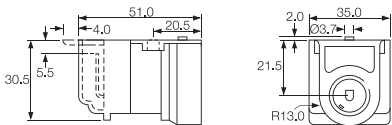
- E12 and E14 lamps
- Switch rating up to 0.06A, 250V ac
- Auto switching
- Mercury free
- Available with right or left hand orientation
- Available as lampholder only

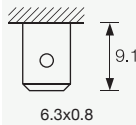
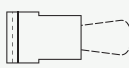
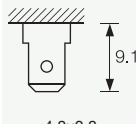
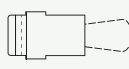
### Approvals and specifications

- 0.06A 250Vac 25 T 85 (0305 only)
- UL 15W 125/250Vac (0305 only)  
UL 65°C, file E116391 (0305 only)
- Switched units have  $\mu$  contact gap.

### Dimensions and Properties

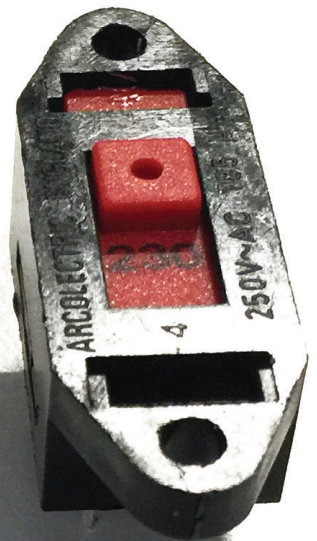
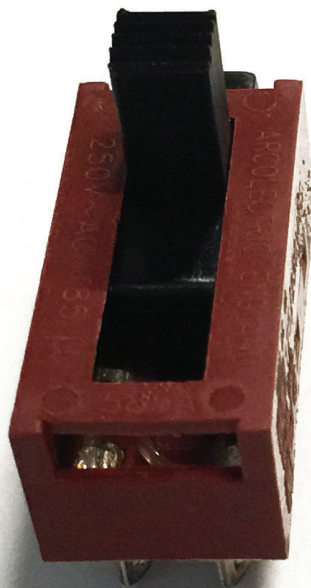
The mechanism of this switch/lampholder does not contain mercury and may be safely used in food storage equipment. When fitted to the lid of a freezer storage cabinet, the switch will operate the lamp when the lid is opened to the angle of tilt shown in the drawing.



| Terminal                                                                                       | Function                                                                                                                                                                                                                                                                                           | Mounting                                                                                                                                                                                                         | Body                                                                                                                                                                              | Options                                                                                 |
|------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| <b>C</b><br> | <b>0305 (E14)</b><br><br>ON - OFF<br>Switch and<br>Lampholder                                                                                                                                                   | <b>L</b><br>(View from the bulb end)<br><br>For Left hinged lid<br>for 0305/0306 switches,<br>not for 0307 lampholder<br><br> | <b>T</b><br>Body without flange<br>for 0305/0306 switches<br><br>                              | <b>Colour</b><br>Call sales for colours. A full range is<br>available for large orders. |
| <b>H</b><br> | <b>0306 (E12)</b><br><br>Lampholder only<br>(No Switch)<br><br><b>0307 (E14)</b><br><br>ON - OFF<br>Switch and<br>Lampholder | <b>R</b><br>(View from the bulb end)<br><br>For Right hinged lid<br>for 0307 lampholder or<br>0305/0306 switches<br><br>      | <b>S</b><br>Body with rear flange<br>for 0307 lampholder and<br>for 0305/0306 switches<br><br> |                                                                                         |

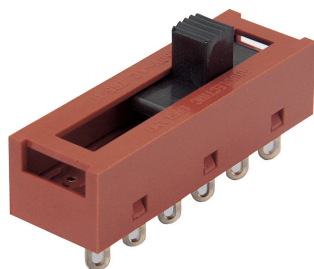
With up to 5 switching positions as well as multiple terminal, circuit and slider options, Bulgin's board mounted power slide switches can be configured to suit your needs. We also offer a wide range of voltage selector types that can be either snapped into a panel or flange mounted.

- Ratings up to 16A, 250V ac
- PCB and solder terminals
- Voltage Selector Models
- Snap in and flange mounting
- 2, 3, 4 and 5 position
- Choice of circuits
- Choice of actuators



# 2000 Slide Switches - up to 5 position

10A 250Vac



## Key Features

- Slide switches
- Ratings up to 16A, 250V ac
- PCB and solder terminals
- 2, 3, 4 and 5 position
- Choice of circuits
- Choice of actuators

## Approvals and specifications

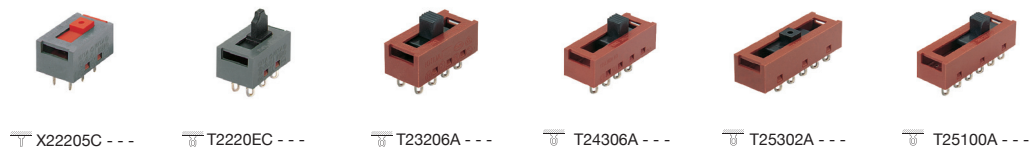
UL 10A 250Vac T85  
6(3)A 250Vac T85

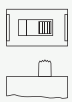
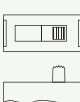
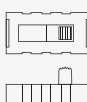
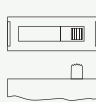
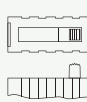
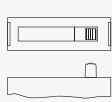
UL CSA 16A 250Vac Non Inductive  
UL CSA 4A 300Vac  
UL 65°C, file no. E45221, CSA file no. LR10990

μ contact gap  
Please specify: Standard action (SP116) or Light action (SP118).  
2000 series lubrication is inorganic and does not degrade plastics.

| Terminal                                                                                                                                                                                 | Series                          | Position                        | Circuit                                      | Slider                                                       |                                              |                              |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|---------------------------------|----------------------------------------------|--------------------------------------------------------------|----------------------------------------------|------------------------------|
| <div><b>K</b><br/><br/>2.8 x 0.8</div>                                                                                                                                                   | <b>2</b>                        | <b>2</b><br>Switching positions | <b>10</b><br>                                | <b>0</b><br><br><b>6</b><br><br><b>D</b><br><br><b>L</b><br> |                                              |                              |
| <div><b>R</b><br/><br/>2.8 x 0.8</div>                                                                                                                                                   |                                 |                                 | <b>20</b><br>                                |                                                              | <b>1</b><br><br><b>7</b><br><br><b>E</b><br> |                              |
| <div><b>T</b><br/><br/>Solder</div>                                                                                                                                                      |                                 | <b>3</b><br>Switching positions | <b>30</b><br>                                |                                                              |                                              | <b>9</b><br><br><b>G</b><br> |
| <div><b>X</b><br/><br/>PCB 0.8 Sq.</div>                                                                                                                                                 |                                 |                                 | <b>40</b><br>                                |                                                              |                                              |                              |
| <div><b>Y</b><br/><br/>PCB 0.8 Sq.<br/>For mounting stability switches have extra "support" terminals<br/>* Nominal - Dimension varies with body type. For exact figure call sales</div> |                                 | <b>4</b><br>Switching positions | <b>10</b><br>                                | <b>3</b><br><br><b>A</b><br><br><b>H</b><br>                 |                                              |                              |
|                                                                                                                                                                                          | <b>20</b><br>                   |                                 | <b>4</b><br><br><b>B</b><br><br><b>J</b><br> |                                                              |                                              |                              |
|                                                                                                                                                                                          | <b>30</b><br>                   |                                 |                                              |                                                              | <b>5</b><br><br><b>C</b><br>                 |                              |
|                                                                                                                                                                                          | <b>40</b><br>                   |                                 |                                              |                                                              |                                              | <b>K</b><br>                 |
|                                                                                                                                                                                          | <b>5</b><br>Switching positions | <b>10</b><br>                   |                                              | <b>T</b><br>                                                 |                                              |                              |
|                                                                                                                                                                                          |                                 | <b>20</b><br>                   |                                              |                                                              |                                              |                              |
|                                                                                                                                                                                          |                                 | <b>30</b><br>                   |                                              |                                                              |                                              |                              |
|                                                                                                                                                                                          |                                 | <b>40</b><br>                   |                                              |                                                              |                                              |                              |

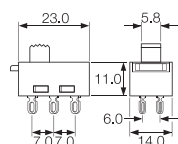
## Examples



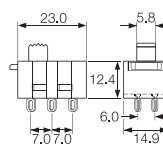
| Body                                                                                                        |                                                                                                             | Options                                                                                                                                                                                     |
|-------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>C</b> 2 positions<br>   | <b>H</b> 2 positions<br>   | <p><b>Colour</b><br/>Call sales for custom colours. A full range is available for large orders.</p> <p><b>Legend printing</b><br/>A wide range is available. For all options call sales</p> |
| <b>A</b> 3 positions<br> | <b>H</b> 3 positions<br> |                                                                                                                                                                                             |
| <b>A</b> 4 positions<br> | <b>H</b> 4 positions<br> |                                                                                                                                                                                             |
| <b>A</b> 5 positions<br> |                                                                                                             |                                                                                                                                                                                             |
|                                                                                                             |                                                                                                             |                                                                                                                                                                                             |

## Dimensions

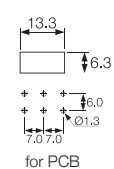
### C 2 positions



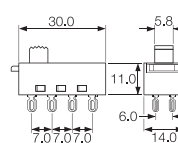
### H 2 positions



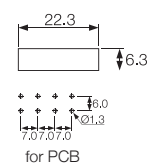
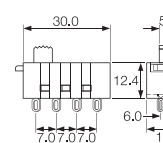
### Cut-out /PCB Matrix



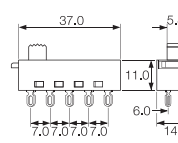
### A 3 positions



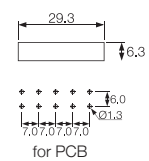
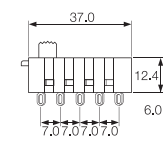
### H 3 positions



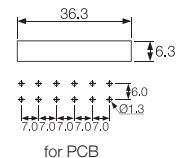
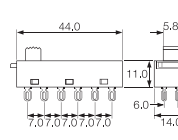
### A 4 positions



### H 4 positions



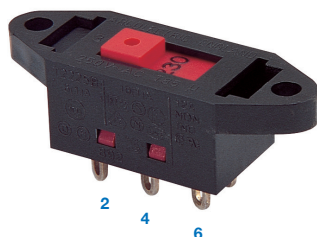
### A 5 positions





# 2000 Slide Switches - Snap fit and panel mount

10A 250Vac



115/230 is preferred legend

## Key Features

- 2 way 'voltage selector'
- Ratings up to 16A, 250V ac
- Snap fit and panel mount
- PCB & solder terminals
- 2 and 3 position
- Choice of circuits
- Choice of actuators

## Approvals and specifications

10A 250Vac T85  
6(3)A 250Vac T85

UL CSA 16A 250Vac Non Inductive  
UL CSA 4A 300Vac  
UL 65°C, file no. E45221, CSA file no. LR10990

μ contact gap

Please specify: Standard action (SP116) or Light action (SP118).

2000 series lubrication is inorganic and does not degrade plastics.

| Terminal                                                                                                                                                                  | Series | Position                 | Circuit              | Slider                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------------------------|----------------------|----------------------------|
| <b>K</b><br><br>2.8 x 0.8                                                                                                                                                 | 2      | 2<br>Switching positions | 10<br>20<br>30<br>40 | 0<br>2<br>3<br>4<br>5<br>S |
| <b>R</b><br><br>2.8 x 0.8                                                                                                                                                 |        |                          |                      | 6<br>7<br>8<br>9           |
| <b>T</b><br><br>Solder                                                                                                                                                    |        |                          |                      | C<br>D<br>E<br>H           |
| <b>X</b><br><br>PCB 0.8 Sq.<br>For mounting stability switches have extra "support" terminals<br>* Nominal - Dimension varies with body type. For exact figure call sales |        | 3<br>Switching positions | 10<br>20<br>30<br>40 | L<br>M<br>N<br>P<br>K<br>R |

## Examples



T22208E ---



T22308E ---



T2230MF ---



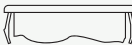
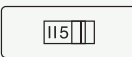
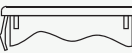
T22205B ---



T22305B ---

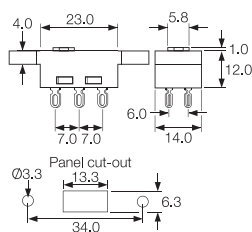


T23204B ---

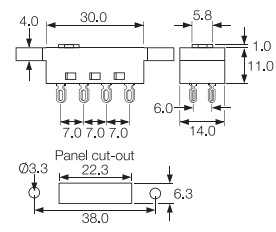
| Body                                                                                                                                                                                                                                  | Options                                                                                                                                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>B</b></p> <p>With mounting holes</p>                      | <p><b>Colour</b></p> <p>Call sales for custom colours.<br/>A full range is available for large orders.<br/>Standard body colour is black.</p> |
| <p><b>E</b></p> <p>Snap fit</p>                                 |                                                                                                                                               |
| <p><b>F</b></p> <p>Snap fit<br/>(single pole ON OFF only)</p>   |                                                                                                                                               |

## Dimensions

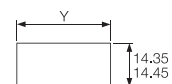
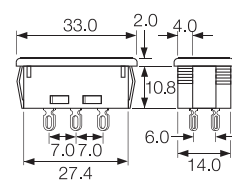
### 2 Pos B



### 3 Pos B

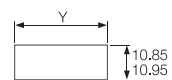
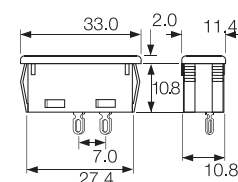


### 2 Pos E



| Panel thickness | Dim. Y      |
|-----------------|-------------|
| 0.8-1.2         | 29.75/29.85 |
| 1.63            | 30.15/30.25 |
| 2.0             | 30.35/30.45 |
| 2.5             | 30.55/30.65 |

### 2 Pos F



| Panel thickness | Dim. Y      |
|-----------------|-------------|
| 0.8-1.2         | 29.75/29.85 |
| 1.63            | 30.15/30.25 |
| 2.0             | 30.35/30.45 |
| 2.5             | 30.55/30.65 |

Manufactured from quality moulding and metal components to ensure a secure and reliable connection, Bulgin's battery holder range caters for battery sizes AAA(R03), AA(R6), C(R14), D(R20) and PP3(6R61), accommodating 1, 2, 3 or 4 cells.



There's a choice of fixing styles including screw and flange panel fixing, PCB and base mounting versions.

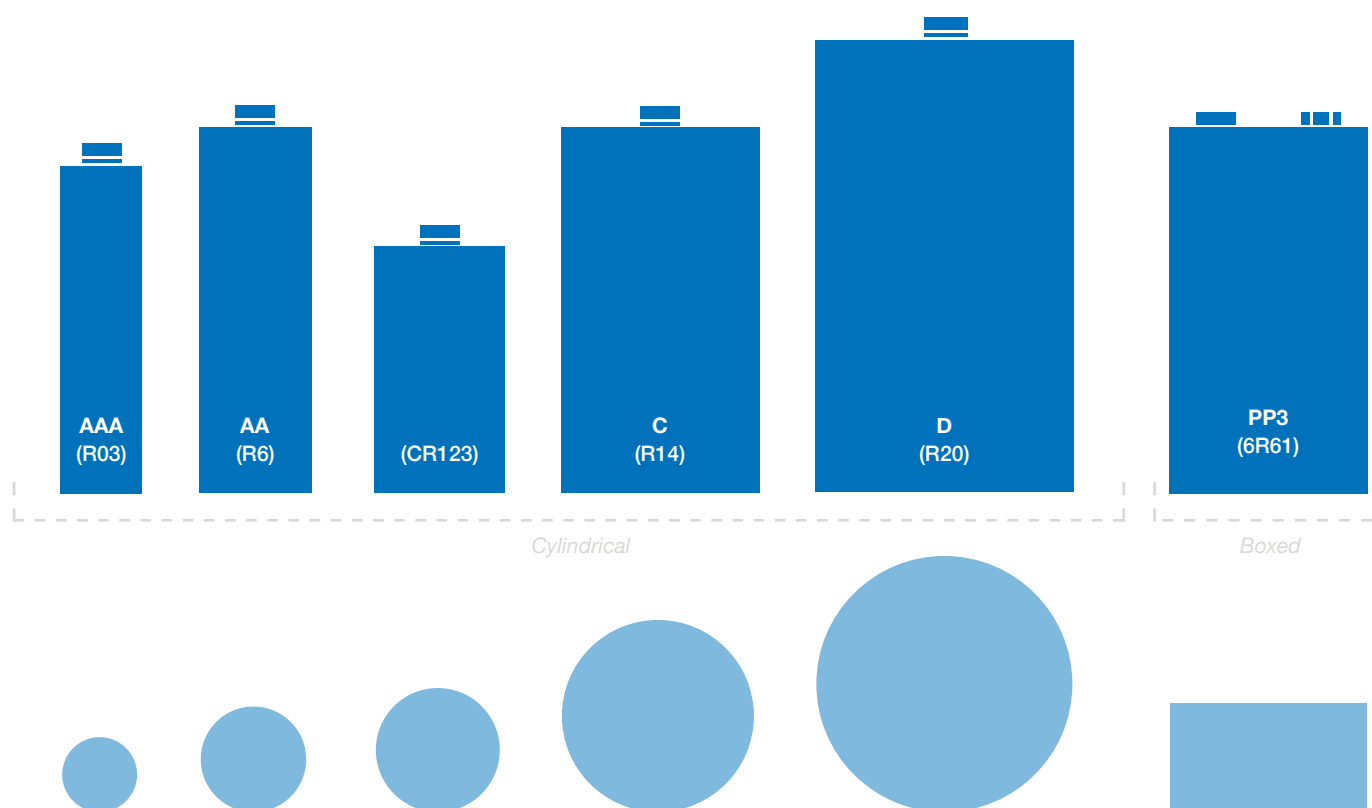
The panel mounting versions are now available in two styles; standard fixing and front panel sealed to IP67, extending the applications into harsher external environments where dust or water would inhibit equipment operation.

The open frame styles are designed to be either PCB or base mounted and most have an interlocking facility to join adjacent holders together.

Principle applications include portable equipment and memory back-up.

|                   |         |
|-------------------|---------|
| IP67 Sealed       | 232     |
| Panel Mounting    | 233-234 |
| PCB/Base Mounting | 235-236 |

| Battery size | Battery Dimensions    | No. of Cells | Mounting           | Part No. |
|--------------|-----------------------|--------------|--------------------|----------|
| AAA (R03)    | Ø10.5 x 44.5          | 1            | PCB/Base           | BX0034   |
| AA (R6)      | Ø14.5 x 50.5          | 1            | PCB/Base           | BX0035   |
|              |                       | 1            | Panel              | BX0011/1 |
|              |                       | 2            | Panel              | BX0012/1 |
|              |                       | 3            | Panel              | BX0013/1 |
|              |                       | 4            | Panel              | BX0027   |
|              |                       | 1            | Panel Sealed       | BXS011/1 |
|              |                       | 2            | Panel Sealed Panel | BXS012/1 |
|              |                       | 3            | Sealed             | BXS013/1 |
| CR123        | Ø17.0 x 34.5          | 1            | PCB/Base           | BX0123   |
| C (R14)      | Ø26.2 x 50            | 1            | PCB/Base           | BX0036   |
|              |                       | 1            | Panel              | BX0001/1 |
|              |                       | 2            | Panel              | BX0002/1 |
|              |                       | 3            | Panel              | BX0003/1 |
|              |                       | 1            | Panel Sealed       | BXS001/1 |
|              |                       | 2            | Panel Sealed       | BXS002/1 |
|              |                       | 3            | Panel Sealed       | BXS003/1 |
| D (R20)      | Ø34.2 x 61.5          | 1            | PCB/Base           | BX0037   |
|              |                       | 1            | Panel              | BX0016   |
|              |                       | 2            | Panel              | BX0017   |
|              |                       | 3            | Panel              | BX0018   |
|              |                       | 1            | Panel Sealed       | BXS016   |
|              |                       | 2            | Panel Sealed       | BXS017   |
|              |                       | 3            | Panel Sealed       | BXS018   |
| PP3 (6R61)   | W26.5 x D17.5 x H48.5 | 1            | PCB/Base           | BX0033   |
|              |                       | 1            | Panel              | BX0023   |
|              |                       | 2            | Panel              | BX0026   |



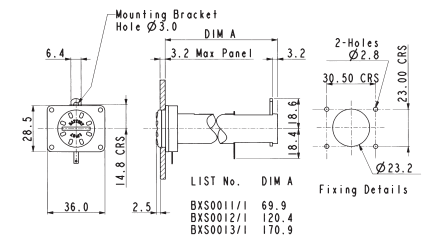
As batteries from different manufacturers may vary slightly in size, Dimensions & Drawings are approximate only.  
 All Bulgin Battery Holders have polarity clearly marked.

#### AA SIZE BATTERY HOLDER



BXS011/1

- 1, 2 or 3 Cells
- Flanged Panel Mount
- Bayonet with finger/coin slot release
- Supplied with gasket and sealing grommets for screws

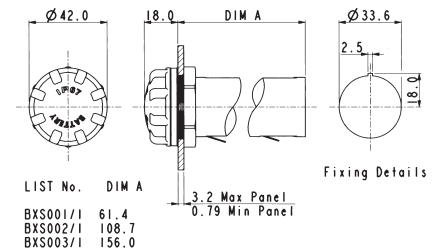


#### C SIZE BATTERY HOLDER



BXS001/1

- 1, 2 or 3 Cells
- Panel Mount
- Screw Cap/Hand release
- Supplied with gasket

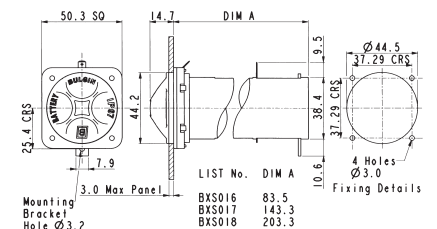


#### D SIZE BATTERY HOLDER



BXS016

- 1, 2 or 3 Cells
- Flanged Panel Mount
- Bayonet/finger release
- Supplied with flange gasket and sealing grommets for screws



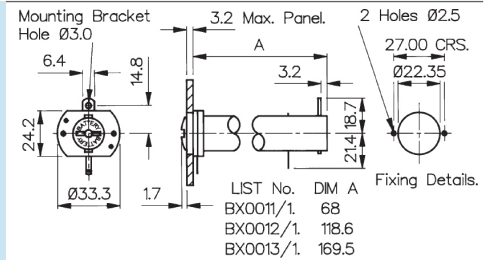
| Specification             | BXS011/1, BXS012/1, BXS013/1                                                                      | BXS001/1, BXS002/1, BXS003/1                                                                   | BXS016, BXS017, BXS018                                                  |
|---------------------------|---------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| Battery/Cell Type:        | AA (R6)                                                                                           | C (R14)                                                                                        | D (R20)                                                                 |
| No. Cells:                | BXS011/1 - 1 cell<br>BXS012/1 - 2 cells<br>BXS013/1 - 3 cells                                     | BXS001/1 - 1 cell<br>BXS002/1 - 2 cells<br>BXS003/1 - 3 cells                                  | BXS016 - 1 cell<br>BXS017 - 2 cells<br>BXS018 - 3 cells                 |
| Terminations:             | 2.8 series tabs/solder tags                                                                       | 2.8 series tabs/solder tags                                                                    | 4.8 series tabs/solder tags                                             |
| Operating Temperature:    | -30°C to +70°C                                                                                    | -30°C to +70°C                                                                                 | -30°C to +70°C                                                          |
| Mouldings:                | Nylon<br>Glass filled Polyester<br>Polycarbonate                                                  | Nylon<br>Glass filled Polyester                                                                | Nylon<br>Glass filled Polyester                                         |
| Flammability Rating:      | UL94V-0                                                                                           | UL94V-0                                                                                        | UL94V-0                                                                 |
| Contacts:                 | Brass, Tin Plated - rear contact<br>Nickel Silver, clean - front contact<br>and cap contact plate | Brass, Tin Plated - front and rear contacts<br>Nickel Silver, clean - cap contact plate        | Brass, Nickel Plated - front and rear<br>contacts and cap contact plate |
| Features:                 | Bayonet cap with finger grip and<br>coin slot<br>Rear support bracket                             | Screw on cap with finger grip<br>Recommended torque for panel ring<br>1.13-1.7Nm (10-15lbf.in) | Bayonet cap with finger grip<br>Rear support bracket                    |
| Sealing (front of panel): | Protection classification<br>IP67, EN60529:1992+A2:2013                                           | Protection classification<br>IP67, EN60529:1992+A2:2013                                        | Protection classification<br>IP67, EN60529:1992+A2:2013                 |
| Notes:                    | Recommend 2 & 3 cell versions are<br>supported by rear bracket                                    |                                                                                                | Recommend 2 & 3 cell versions are<br>supported by rear bracket          |
| RoHS                      | Compliant                                                                                         | Compliant                                                                                      | Compliant                                                               |

#### AA SIZE BATTERY HOLDER

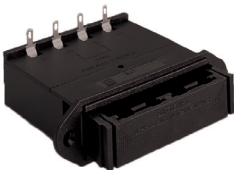


BX0011/1

- 1, 2 or 3 Cells
- Flanged Panel Mount
- Bayonet/Screwdriver release

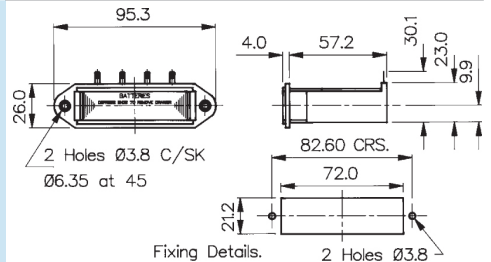


#### AA SIZE BATTERY HOLDER



BX0027

- 4 Cells
- Flanged Panel Mount
- Drawer function

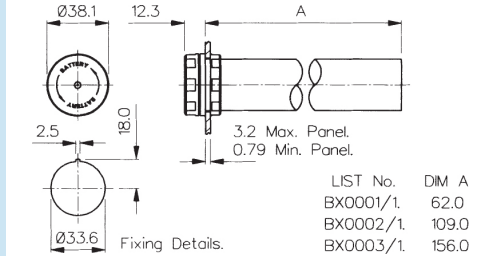


#### C SIZE BATTERY HOLDER



BX0001/1

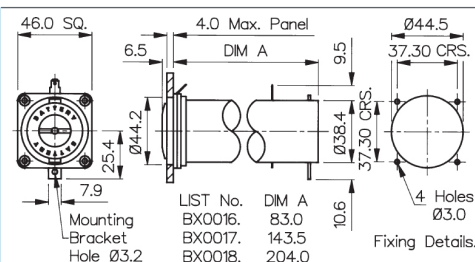
- 1, 2 or 3 Cells
- Panel Mount
- Screw Cap/Hand release



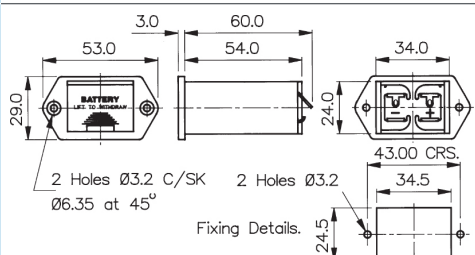
| Specification          | BX0011/1, BX0012/1, BX0013/1                                  | BX0027                                              | BX0001/1, BX0002/1, BX0003/1                                             |
|------------------------|---------------------------------------------------------------|-----------------------------------------------------|--------------------------------------------------------------------------|
| Battery/Cell Type:     | AA (R6)                                                       | AA (R6)                                             | C (R14)                                                                  |
| No. Cells:             | BX0011/1 - 1 cell<br>BX0012/1 - 2 cells<br>BX0013/1 - 3 cells | 4 cells                                             | BX0001/1 - 1 cell<br>BX0002/1 - 2 cells<br>BX0003/1 - 3 cells            |
| Terminations:          | 2.8 series tabs/solder tags                                   | 4 solder tags (can be wired in series or in pairs)  | 2.8 series tabs/solder tags                                              |
| Operating Temperature: | -30°C to +70°C                                                | -30°C to +70°C                                      | -30°C to +70°C                                                           |
| Flammability Rating:   | UL94V-0                                                       | UL94HB                                              | UL94V-0                                                                  |
| Mouldings:             | Glass Filled Nylon & Polyester                                | Glass Filled Nylon                                  | Nylon & Glass Filled Nylon                                               |
| Contacts:              | Brass, Tin Plated<br>Nickel Silver, clean                     | Phosphor Bronze, Tin Plated<br>Nickel Silver, clean | Nickel Silver, clean<br>Brass, Tin Plated                                |
| Features:              | Bayonet cap with coin slot<br>Rear support bracket            | Removable loading/latching drawer                   | Screw on cap. Recommended torque for panel ring 1.13-1.7Nm (10-15lbf.in) |
| Notes:                 | Recommend 2 & 3 cell versions are supported by rear bracket   |                                                     |                                                                          |
| RoHS                   | Compliant                                                     | Compliant                                           | Compliant                                                                |



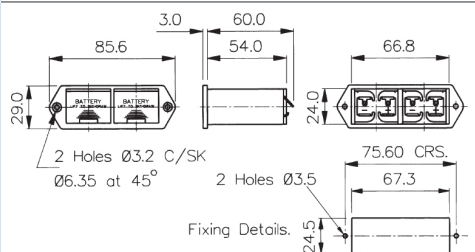
- ⬡ 1, 2 or 3 Cells
- ⬡ Flanged Panel Mount
- ⬡ Bayonet/Screwdriver release



- 1 Cell
- Flanged Panel Mount
- Drawer function



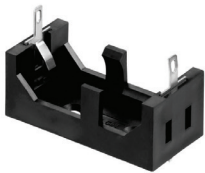
- ⬡ 2 Cell
- ⬡ Panel Mount
- ⬡ Screw Cap/Hand release



| Specification          | BXS011/1, BXS012/1, BXS013/1                                | BX0023                      | BX0026                      |
|------------------------|-------------------------------------------------------------|-----------------------------|-----------------------------|
| Battery/Cell Type:     | D (R20)                                                     | PP3 (6R61)                  | PP3 (6R61)                  |
| No. Cells:             | BX0016 - 1 cell<br>BX0017 - 2 cells<br>BX0018 - 3 cells     | 1 cell                      | 2 cells                     |
| Terminations:          | 4.8 series tabs/solder tags                                 | Solder tag                  | Solder tags                 |
| Operating Temperature: | -30°C to +70°C                                              | -30°C to +70°C              | -30°C to +70°C              |
| Flammability Rating:   | UL94V-0                                                     | UL94HB                      | UL94HB                      |
| Mouldings:             | Nylon & Polycarbonate                                       | Glass Filled Nylon          | Glass Filled Nylon          |
| Contacts:              | Brass, Nickel Plated                                        | Phosphor Bronze, Tin Plated | Phosphor Bronze, Tin Plated |
| Features:              | Bayonet cap with coin slot<br>Rear support bracket          | Removable loading drawer    | Removable loading drawer    |
| Notes:                 | Recommend 2 & 3 cell versions are supported by rear bracket |                             |                             |
| RoHS                   | Compliant                                                   | Compliant                   | Compliant                   |

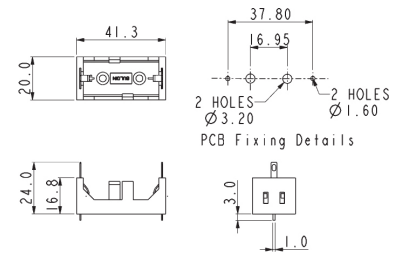


#### CR123 SIZE BATTERY HOLDER

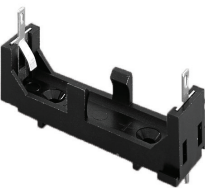


BX0123

- 1 Cell
- PC/Base Mount
- Open style

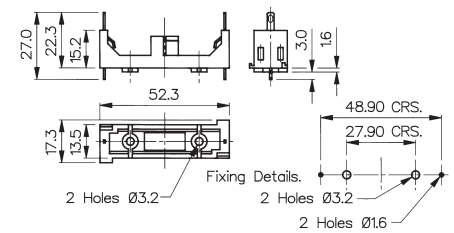


#### AAA SIZE BATTERY HOLDER

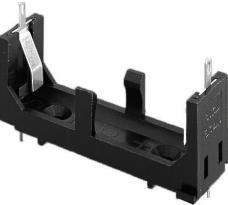


BX0034

- 1 Cell
- PC/Base Mount
- Open style

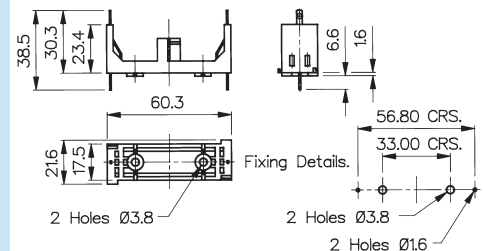


#### AA SIZE BATTERY HOLDER



BX0035

- 1 Cell
- PC/Base Mount
- Open style



#### Specification

#### BX0123

#### BX0034

#### BX0035

Battery/Cell Type:

CR123

AAA (R03)

AA (R6)

No. Cells:

1 cell

1 cell

1 cell

Terminations:

Dual connections, P.C. spills & 2.8 series tabs/solder tags. (P.C. spills may be removed if required)

Dual connections, P.C. spills & 2.8 series tabs/solder tags. (P.C. spills may be removed if required)

Dual connections, P.C. spills & 2.8 series tabs/solder tags. (P.C. spills may be removed if required)

Operating Temperature:

-30°C to +70°C

-30°C to +70°C

-30°C to +70°C

Flammability Rating:

UL94HB

UL94HB

UL94HB

Mouldings:

Glass Filled Nylon

Glass Filled Nylon

Nylon & Glass Filled Nylon

Contacts:

Nickel Silver, clean

Nickel Silver, clean

Nickel Silver, clean

Features:

Compliant

Interlocking for multiple assemblies

Interlocking for multiple assemblies

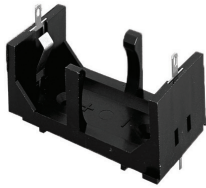
RoHS

Compliant

Compliant

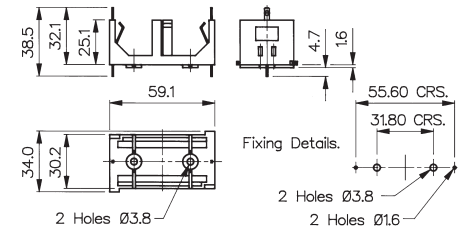
Compliant

#### C SIZE BATTERY HOLDER



BX0036

- 1 Cell
- PC/Base Mount
- Open style

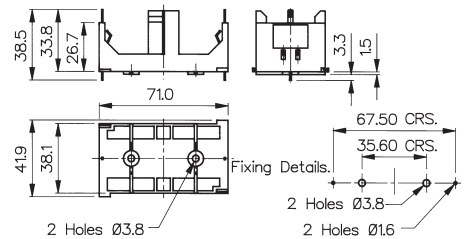


#### D SIZE BATTERY HOLDER



BX0037

- 1 Cell
- PC/Base Mount
- Open style

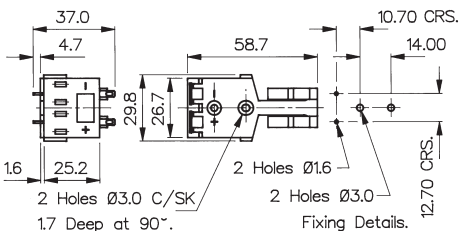


#### PP3 SIZE BATTERY HOLDER



BX0033

- 1 Cell
- PC/Base Mount
- Open style



#### Specification

#### BX0036

#### BX0037

#### BX0033

Battery/Cell Type:

C (R14)

D (R20)

PP3 (6R61)

No. Cells:

1 cell

1 cell

1 cell

Terminations:

Dual connections, P.C. spills & 2.8 series tabs/solder tags. (P.C. spills may be removed if required)

Dual connections, P.C. spills & 2.8 series tabs/solder tags. (P.C. spills may be removed if required)

Dual connections, P.C. spills & 2.8 series tabs/solder tags. (P.C. spills may be removed if required)

Operating Temperature:

-30°C to +70°C

-30°C to +70°C

-30°C to +70°C

Flammability Rating:

UL94HB

UL94HB

UL94HB

Mouldings:

Glass Filled Nylon

Glass Filled Nylon

Nylon & Glass Filled Nylon

Contacts:

Nickel Silver, clean

Nickel Silver, clean

Nickel Silver, clean

Features:

Interlocking for multiple assemblies

Interlocking for multiple assemblies

Interlocking for multiple assemblies

RoHS

Compliant

Compliant

Compliant

A full range of **quality** mains rated **inlets, outlets** and **connectors** conforming to **IEC** and EN 60320 specifications carrying **UL, CSA, VDE** and other approvals.

With electrical ratings up to 20A, 250V (UL) these connector ranges offer solutions to most mains powered equipment and cable applications.

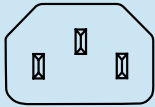
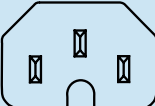
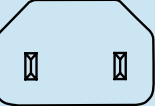
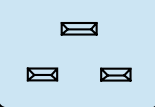
The combinations of mounting styles and terminations include: flange fixing, snap to panel and PCB mounting versions together with 2.8/ solder tabs, 4.8 and 6.3 fast on tabs, screw terminal and PC spill versions.

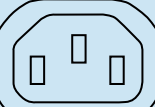
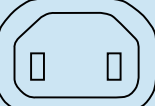
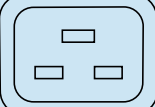
Completing the range are insulating boots, retaining and safety covers

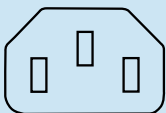
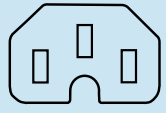
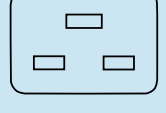
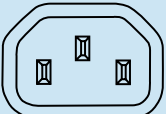
In addition to the standard black moulding, most styles are also available in either white or grey and special colours to match OEM equipment can also be supplied. (Subject to product approval requirements)



|                              |         |
|------------------------------|---------|
| Inlets and Outlet Connectors | 238-262 |
| Distribution Units           | 263-267 |
| Power Entry Modules          | 268-290 |
| EMI Mains Filters            | 291-299 |

| IEC60 320-1                                                                        | Sheet No: | No Pins | Current Rating   | Flange Fixing                                                                    | Snap fit            | Fused Flange                                         | Fused Snap fit      | Filtered     | Fuse Filtered                |
|------------------------------------------------------------------------------------|-----------|---------|------------------|----------------------------------------------------------------------------------|---------------------|------------------------------------------------------|---------------------|--------------|------------------------------|
|   | C14       | 3       | 10A, 250V a.c.   | PX0579<br>PX0580<br>PX0580/PC<br>PX0580/PC/12132<br>PX0580/PC/7<br>PX0580/PC/7LC | PX0575<br>PX0575/PC | PF0001<br>PF0001/PC<br>PF0002<br>PF0030<br>PF0030/PC | PF0011<br>PF0011/PC | PS00<br>PS01 | PS20<br>PS21<br>PS25<br>PS26 |
|   | C16       | 3       | 10A, 250V a.c.   | PX0590                                                                           | PX0595              |                                                      |                     |              |                              |
|   | C18       | 2       | 10A, 250V a.c.   | PX0690                                                                           | PX0691<br>PX0691/PC | PF0006<br>PF0007                                     | PF0016              |              |                              |
|  | C20       | 3       | 3 16A, 250V a.c. | PX0596                                                                           | PX0598              |                                                      |                     |              |                              |

| IEC60 320-2-2                                                                       | Sheet No: | No Pins | Current Rating | Flange Fixing                                                                       | Snap fit                                                                   | Fused Flange | Fused Snap fit | Filtered | Fuse Filtered |
|-------------------------------------------------------------------------------------|-----------|---------|----------------|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------|--------------|----------------|----------|---------------|
|  | F         | 3       | 10A, 250V a.c. | PX0675<br>PX0675/PC<br>PX0675/PC/12599<br>PX0793 (Shuttered)<br>PX0793/1(Shuttered) | PX0695<br>PX0695/PC<br>PX0783<br>(Shuttered)<br>PX0716<br>PX0717<br>PX0718 |              |                |          |               |
|  | H         | 2       | 10A, 250V a.c. | PX0705                                                                              | PX0725                                                                     |              |                |          |               |
|  | J         | 3       | 16A, 250V a.c. | PX0591                                                                              | PX0592                                                                     |              |                |          |               |

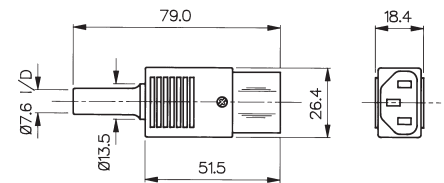
| IEC60 320-1                                                                         | Sheet No: | No Pins | Current Rating | Rewirable        | Side Entry<br>Rewirable |
|-------------------------------------------------------------------------------------|-----------|---------|----------------|------------------|-------------------------|
|    | C13       | 3       | 10A, 250V a.c. | PX0587<br>PX0588 | PX0587/SE               |
|    | C15       | 3       | 10A, 250V a.c. | PX0597           |                         |
|    | C19       | 3       | 16A, 250V a.c. | PX0599           |                         |
| IEC60 320-2-2                                                                       | Sheet No: | No Pins | Current Rating | Rewirable        | Side Entry<br>Rewirable |
|  | E         | 3       | 10A, 250V a.c. | PX0686           | PX0685<br>PX0686/SE     |

## Straight Female Connector



PX0587

- Cable Mounting
- Rewirable
- Screw Terminals
- 10A, 250V a.c.

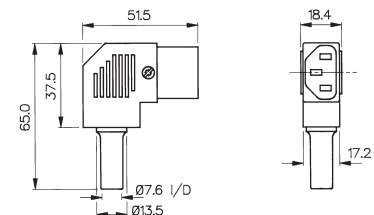


## Side Entry Female Connector



PX0587/SE

- Cable Mounting
- Rewirable
- Screw Terminals
- 10A, 250V a.c.

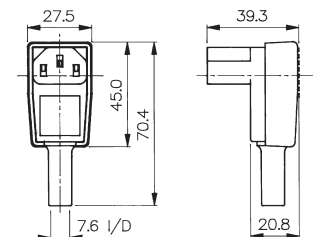


## Angled Female Connector



PX0588

- Cable Mounting
- Rewirable
- Screw Terminals
- 10A, 250V a.c.



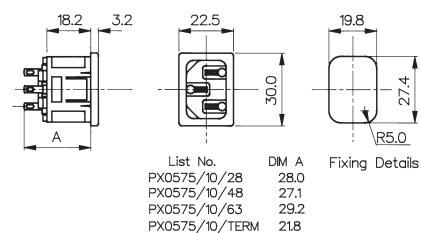
| Specifications         | PX0587/Col                                                                          | PX0587/SE/Col                                                                        | PX0588                                                                                |
|------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Terminations:          | Screw Terminals                                                                     | Screw Terminals                                                                      | Screw Terminals                                                                       |
| Colours:               | No suffix (Black), /WH (White), /GY (Grey)                                          | No suffix (Black), /WH (White), /GY (Grey)                                           | -                                                                                     |
| Max. Rating:           | 10A, 250V a.c.                                                                      | 10A, 250V a.c.                                                                       | 10A, 250V a.c.                                                                        |
| Contact Resistance:    | <10mΩ                                                                               | <10mΩ                                                                                | <10mΩ                                                                                 |
| Insulation Resistance: | >10 <sup>3</sup> MΩ                                                                 | >10 <sup>3</sup> MΩ                                                                  | >10 <sup>3</sup> MΩ                                                                   |
| A.C. Breakdown:        | Pole-Pole 4.5kV.<br>(Poles-Accessible) Parts 4kV                                    | Pole-Pole 4.5kV.<br>(Poles-Accessible) Parts 4kV                                     | Pole-Pole 5kV.<br>(Poles-Accessible) Parts 3.5kV                                      |
| Operating Temp.        | -40°C to +70°C                                                                      | -40°C to +70°C                                                                       | -40°C to +70°C                                                                        |
| Withdrawal Force:      | 10N (Min.) 50N (Max.)                                                               | 10N (Min.) 50N (Max.)                                                                | 10N (Min.) 50N (Max.)                                                                 |
| Mouldings:             | Nylon, Flammability Rating UL94V-0                                                  | Nylon, Flammability Rating UL94V-0                                                   | Nylon, Flammability Rating UL94V-0                                                    |
| Contacts               | Brass, Clean                                                                        | Brass, Clean                                                                         | Brass, Clean                                                                          |
| Approvals:             |  |  |  |
| Accessories / Notes:   | VDE and ENEC approval for black and white versions only.                            | VDE and ENEC approval for black and white versions only.                             |                                                                                       |
| Mating Inlets:         | PX0575, PX0579, PX0580, PF0001, PF0011, PF0030, PF0033                              | PX0575, PX0579, PX0580, PF0001, PF0011, PF0030, PF0033                               | PX0575, PX0579, PX0580, PF0001, PF0011, PF0030, PF0033                                |
| <b>RoHS</b>            | Compliant                                                                           | Compliant                                                                            | Compliant                                                                             |

## Snap Fit to Panel Inlet



PX0575/10/28

- Fits Panel Sizes 1, 1.5, 2.0 or 3.0mm
- 2.8, 4.8, 6.3mm Tabs or Screw Terminals
- 10A, 250V a.c.  
(15A, 250V a.c. UL & CSA)

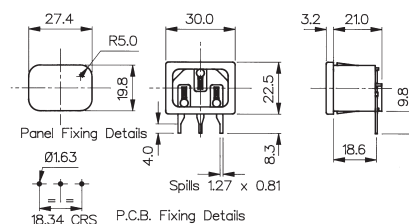


## PC Snap Fit to Panel Inlet



PX0575/10/PC

- Fits Panel Sizes 1, 1.5, 2.0 or 3.0mm
- PC Spills
- 10A, 250V a.c.  
(15A, 250V a.c. UL & CSA)



| Specifications         | PX0575/Panel/Term/Col                                                               | PX0575/Panel/PC/Col                                                                                                                  |
|------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| Fixing(Panel):         | Snap fit, /10 (1mm), /15 (1.5mm), /20 (2mm), /30 (3mm)                              | Snap fit, /10 (1mm), /15 (1.5mm), /20 (2mm), /30 (3mm)                                                                               |
| Terminations:          | /28 (2.8mm solder), /48 (4.8mm tab)                                                 | P.C. Spills                                                                                                                          |
| Colours:               | No suffix (Black), /WH (White), /GY (Grey)                                          | No suffix (Black), /WH (White), /GY (Grey)                                                                                           |
| Max. Rating:           | 10A, 250V a.c.<br>(UL & CSA 15A, 250V a.c.)                                         | 10A, 250V a.c.<br>(UL & CSA 15A, 250V a.c.)                                                                                          |
| Contact Resistance:    | <10mΩ                                                                               | <10mΩ                                                                                                                                |
| Insulation Resistance: | >10 <sup>3</sup> MΩ                                                                 | >10 <sup>3</sup> MΩ                                                                                                                  |
| A.C. Breakdown:        | Pole-Pole 5kV. Poles-Panel 5.4kV                                                    | Pole-Pole 5kV. Poles-Panel 5.4kV                                                                                                     |
| Operating Temp. Range: | -40°C to +70°C                                                                      | -40°C to +70°C                                                                                                                       |
| Max. Pin Temp.:        | +70°C                                                                               | +70°C                                                                                                                                |
| Mouldings:             | Nylon, Flammability Rating UL94V-0                                                  | Nylon, Flammability Rating UL94V-0                                                                                                   |
| Contacts:              | Brass: Pins, Nickel Plated. Tabs, Tin Plated, Screw Terms, Nickel Plated            | Brass: Pins, Nickel Plated. Spills, Tin Plated                                                                                       |
| Approvals:             |  |                                                  |
| Accessories / Notes:   | P.No. 11328 (See Page 152)<br>VDE and ENEC approval for black versions only.        | Standard without cover.<br>With cover add /C to P.No.<br>PX0587, PX0587/SE, PX0588<br>VDE and ENEC approval for black versions only. |
| Mating Connectors:     | PX0587, PX0587/SE, PX0588                                                           | PX0587, PX0587/SE, PX0588                                                                                                            |
| RoHS                   | Compliant                                                                           | Compliant                                                                                                                            |

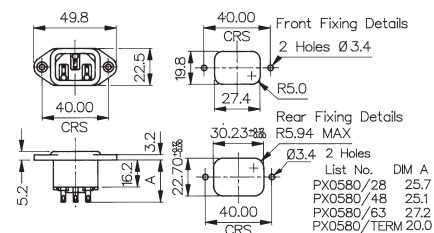


## Flange Mount Inlet



PX0580/28

- 2.8, 4.8, 6.3mm Tabs or Screw Terminals
- 10A, 250V a.c. (15A, 250V a.c. UL & CSA)

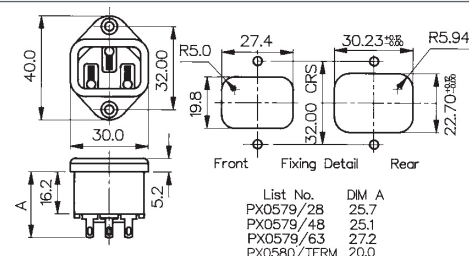


## Vertical Flange Mount Inlet



PX0579/28

- 2.8, 4.8, 6.3mm Tabs or Screw Terminals
- 10A, 250V a.c. (15A, 250V a.c. UL & CSA)



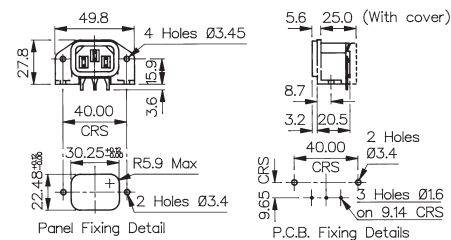
| Specifications         | PX0580/Term/Col                                                                                                                                                                                                                                                                                                                                 | PX0579/Term/Col                                                                                                                                                                                                                                                                                                                                          |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Fixing:                | Flange                                                                                                                                                                                                                                                                                                                                          | Flange                                                                                                                                                                                                                                                                                                                                                   |
| Terminations:          | /28 (2.8mm solder), /48 (4.8mm tab)<br>/63 (6.3mm tab), /TERM (screw)                                                                                                                                                                                                                                                                           | /28 (2.8mm solder), /48 (4.8mm tab)<br>/63 (6.3mm tab)                                                                                                                                                                                                                                                                                                   |
| Colours:               | No suffix (Black), /WH (White), /GY (Grey)                                                                                                                                                                                                                                                                                                      | No suffix (Black), /WH (White), /GY (Grey)                                                                                                                                                                                                                                                                                                               |
| Max. Rating:           | 10A, 250V a.c.<br>(UL & CSA 15A, 250V a.c.)                                                                                                                                                                                                                                                                                                     | 10A, 250V a.c.<br>(UL & CSA 15A, 250V a.c.)                                                                                                                                                                                                                                                                                                              |
| Contact Resistance:    | <10mΩ                                                                                                                                                                                                                                                                                                                                           | <10mΩ                                                                                                                                                                                                                                                                                                                                                    |
| Insulation Resistance: | >10 <sup>3</sup> MΩ                                                                                                                                                                                                                                                                                                                             | >10 <sup>3</sup> MΩ                                                                                                                                                                                                                                                                                                                                      |
| A.C. Breakdown:        | Pole-Pole 5kV, Poles-Panel 10kV                                                                                                                                                                                                                                                                                                                 | Pole-Pole 5kV, Poles-Panel 10kV                                                                                                                                                                                                                                                                                                                          |
| Operating Temp.:       | -40°C to +70°C                                                                                                                                                                                                                                                                                                                                  | -40°C to +70°C                                                                                                                                                                                                                                                                                                                                           |
| Max. Pin Temp.:        | +70°C                                                                                                                                                                                                                                                                                                                                           | +70°C                                                                                                                                                                                                                                                                                                                                                    |
| Mouldings:             | Nylon, Flammability Rating UL94V-0                                                                                                                                                                                                                                                                                                              | Nylon, Flammability Rating UL94V-0                                                                                                                                                                                                                                                                                                                       |
| Contacts:              | Brass: Pins, Nickel Plated. Tabs, Tin Plated, Screw Terms, Nickel Plated                                                                                                                                                                                                                                                                        | Brass: Pins, Nickel Plated. Tabs, Tin Plated                                                                                                                                                                                                                                                                                                             |
| Approvals:             |     |     pending |
| Accessories / Notes:   | P.No. 11328, KT0006 (PX0587 only)<br>(See Pages 150 and 152)<br>VDE and ENEC approval for black versions only.                                                                                                                                                                                                                                  | P.No. 11328 (See Page 152)                                                                                                                                                                                                                                                                                                                               |
| Mating Connectors:     | PX0587, PX0587/SE, PX0588                                                                                                                                                                                                                                                                                                                       | PX0587, PX0587/SE, PX0588                                                                                                                                                                                                                                                                                                                                |
| <b>RoHS</b>            | Compliant                                                                                                                                                                                                                                                                                                                                       | Compliant                                                                                                                                                                                                                                                                                                                                                |

## PC Flange Rear Mount Inlet



PX0580/PC

- With or Without Rear Cover
- PC Spills
- 10A, 250V a.c.  
(15A, 250V a.c. UL & CSA)

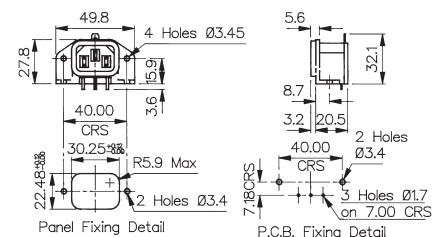


## PC Flange Rear Mount Inlet



PX0580/PC/7

- With or Without Cover
- PC Spills
- 4.8mm Top Tab (earth)
- 10A, 250V a.c.  
(15A, 250V a.c. UL & CSA)



| Specifications         | PX0580/PC/Col                                                                                    | PX0580/PC/7/Col                                                                                   |
|------------------------|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| Fixing:                | P.C.B./Flange                                                                                    | P.C.B./Flange                                                                                     |
| Terminations:          | P.C. Spills                                                                                      | P.C. Spills                                                                                       |
| Colours:               | No suffix (Black), /WH (White), /GY (Grey)                                                       | No suffix (Black), /WH (White), /GY (Grey)                                                        |
| Max. Rating:           | 10A, 250V a.c.<br>(UL & CSA 15A, 250V a.c.)                                                      | 10A, 250V a.c.<br>(UL & CSA 15A, 250V a.c.)                                                       |
| Contact Resistance:    | <10mΩ                                                                                            | <10mΩ                                                                                             |
| Insulation Resistance: | >10 <sup>3</sup> MΩ                                                                              | >10 <sup>3</sup> MΩ                                                                               |
| A.C. Breakdown:        | Pole-Pole 5.4kV. Poles-Panel 10kV                                                                | Pole-Pole 5.4kV. Poles-Panel 10kV                                                                 |
| Operating Temp. Range: | -40°C to +70°C                                                                                   | -40°C to +70°C                                                                                    |
| Max. Pin Temp :        | +70°C                                                                                            | +70°C                                                                                             |
| Mouldings:             | Nylon, Flammability Rating UL94V-0                                                               | Nylon, Flammability Rating UL94V-0                                                                |
| Contacts:              | Brass: Pins, Nickel Plated.<br>Spills, Tin Plated                                                | Brass: Pins, Nickel Plated.<br>Spills, Tin Plated                                                 |
| Approvals:             |               |                |
| Accessories / Notes:   | Standard without cover.<br>With cover add /12132 to P.No<br>VDE approvals for black version only | Standard without cover.<br>With cover add /12132 to P.No.<br>VDE approvals for black version only |
| Mating Connectors:     | PX0587, PX0587/SE, PX0588                                                                        | PX0587, PX0587/SE, PX0588                                                                         |
| <b>RoHS</b>            | Compliant                                                                                        | Compliant                                                                                         |

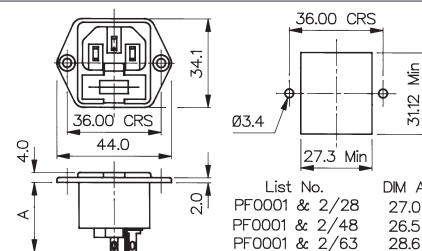
## Flanged Mount Fused Inlet



PF0001/28

PF0002/28

- Single Fuse 5 x 20mm
- Spare Fuse Facility
- 2.8, 4.8 or 6.3mm Tabs
- 10A, 250V a.c.
- Fuse Contacts Isolated (PF0002)

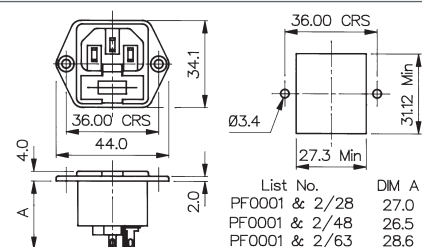


## PC Flanged Mount Fused Inlet



PF0001/PC

- Single Fuse 5 x 20mm
- Spare Fuse Facility
- PC Spills - Horizontal
- 10A, 250V a.c.



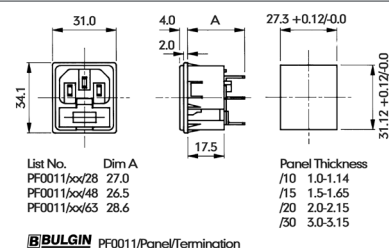
| Specifications         | PF0001/Term/Col                                                                               | PF0001/PC/Col                                                                                             | PF0002/Term/Col                                                                                                              |
|------------------------|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Fixing(Panel):         | Flange                                                                                        | P.C.B./Flange                                                                                             | Flange                                                                                                                       |
| Terminations:          | /28 (2.8mm solder), /48 (4.8mm tab)<br>/63 (6.3mm tab)                                        | P.C. Spills                                                                                               | /28 (2.8mm solder), /48 (4.8mm tab)<br>/63 (6.3mm tab)                                                                       |
| Colours:               | No suffix (Black), /WH (White),<br>/GY (Grey)                                                 | No suffix (Black), /WH (White),<br>/GY (Grey)                                                             | No suffix (Black), /WH (White),<br>/GY (Grey)                                                                                |
| Max. Rating:           | 10A, 250V a.c.                                                                                | 10A, 250V a.c.                                                                                            | 10A, 250V a.c.                                                                                                               |
| Max. Fuse Rating:      | 2.5W/10A, 250V a.c.                                                                           | 2.5W/10A, 250V a.c.                                                                                       | 2.5W/10A, 250V a.c.                                                                                                          |
| Contact Resistance:    | <10mΩ (<15mΩ including Fuseholder)                                                            | <10mΩ (<15mΩ including Fuseholder)                                                                        | <10mΩ                                                                                                                        |
| Insulation Resistance: | >10 <sup>3</sup> MΩ                                                                           | >10 <sup>3</sup> MΩ                                                                                       | >10 <sup>3</sup> MΩ                                                                                                          |
| A.C. Breakdown:        | Pole-Pole 5.5kV. Poles-Panel 4kV                                                              | Pole-Pole 5.5kV. Poles-Panel 4kV                                                                          | Pole-Pole 5.5kV. Poles-Panel 4kV                                                                                             |
| Operating Temp.        | -40°C to +70°C                                                                                | -40°C to +70°C                                                                                            | -40°C to +70°C                                                                                                               |
| Max. Pin Temp.:        | +70°C                                                                                         | +70°C                                                                                                     | +70°C                                                                                                                        |
| Mouldings:             | Nylon, Flammability Rating UL94V-0                                                            | Nylon, Flammability Rating UL94V-0                                                                        | Nylon, Flammability Rating UL94V-0                                                                                           |
| Contacts:              | Brass: Pins, Nickel Plated. Tabs, Tin Plated                                                  | Brass: Pins, Nickel Plated. Tabs, Tin Plated                                                              | Brass: Pins, Nickel Plated. Tabs, Tin Plated                                                                                 |
| Approvals:             |            |                        |                                         |
| Accessories / Notes:   | P.No. 11987, KT0009<br>See Pages 150 & 152)<br>VDE and ENEC approval for black versions only. | KT0009 (front of panel mounting only)<br>(See Page 150)<br>VDE and ENEC approval for black versions only. | P.No. 11987, KT0009 (See Pages 150 & 152)<br>(Note: Fuse contact isolated)<br>VDE and ENEC approval for black versions only. |
| Mating Connectors:     | PX0587, PX0587/SE, PX0588                                                                     | PX0587, PX0587/SE, PX0588                                                                                 | PX0587, PX0587/SE, PX0588                                                                                                    |
| <b>RoHS</b>            | Compliant                                                                                     | Compliant                                                                                                 | Compliant                                                                                                                    |

## Snap Fit to Panel Fused Inlet



PF0011/10/28

- Single Fuse 5 x 20mm
- Spare Fuse Facility
- Panel Sizes 1, 1.5, 2.0 or 3.0mm
- 2.8, 4.8 or 6.3mm Tabs
- 10A, 250V a.c.

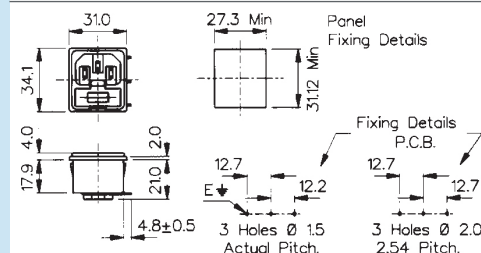


## PC Snap Fit to Panel Fused Inlet



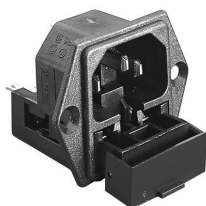
PF0011/10/PC

- Single Fuse 5 x 20mm
- Spare Fuse Facility
- Panel Sizes 1, 1.5, 2.0 or 3.0mm
- PC Spills
- 10A, 250V a.c.



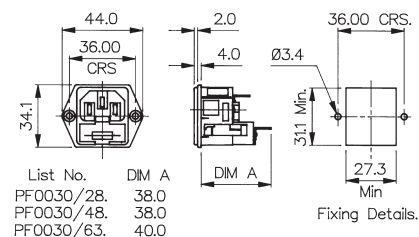
| Specifications         | PF0011/Panel/Term/Col                                                               | PF0011/Panel/PC/Col                                                                  |
|------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Fixing:                | Snap fit, /10 (1mm), /15 (1.5mm), /20 (2mm), /30 (3mm)                              | Snap fit, /10 (1mm), /15 (1.5mm), /20 (2mm), /30 (3mm)                               |
| Terminations:          | /28 (2.8mm solder), /48 (4.8mm tab) /63 (6.3mm tab)                                 | P.C. Spills                                                                          |
| Colours:               | No suffix (Black), /WH (White), /GY (Grey)                                          | No suffix (Black), /WH (White), /GY (Grey)                                           |
| Max. Rating:           | 10A, 250V a.c.                                                                      | 10A, 250V a.c.                                                                       |
| Max. Fuse Rating       | 2.5W/10A, 250V a.c                                                                  | 2.5W/10A, 250V a.c                                                                   |
| Contact Resistance:    | <10mΩ (<15mΩ including Fuseholder)                                                  | <10mΩ (<15mΩ including Fuseholder)                                                   |
| Insulation Resistance: | >10 <sup>3</sup> MΩ                                                                 | >10 <sup>3</sup> MΩ                                                                  |
| A.C. Breakdown:        | Pole-Pole 5.5kV. Poles-Panel 4kV                                                    | Pole-Pole 5.5kV. Poles-Panel 4kV                                                     |
| Operating Temp.        | -40°C to +70°C                                                                      | -40°C to +70°C                                                                       |
| Max. Pin Temp.:        | +70°C                                                                               | +70°C                                                                                |
| Mouldings:             | Nylon, Flammability Rating UL94V-0                                                  | Nylon, Flammability Rating UL94V-0                                                   |
| Contacts:              | Brass: Pins, Nickel Plated. Tabs, Tin Plated                                        | Brass: Pins, Nickel Plated. Spills, Tin Plated                                       |
| Approvals:             |  |  |
| Accessories / Notes:   | P.No. 11987 (See Page 152)<br>VDE and ENEC approval for black versions only.        | VDE and ENEC approval for black versions only.                                       |
| Mating Connectors:     | PX0587, PX0587/SE, PX0588                                                           | PX0587, PX0587/SE, PX0588                                                            |
| <b>RoHS</b>            | Compliant                                                                           | Compliant                                                                            |

## Flanged Mount Fused Inlet



PF0030/28

- Twin Fused 5 x 20mm
- 2.8, 4.8 or 6.3mm Tabs
- 10A, 250V a.c.

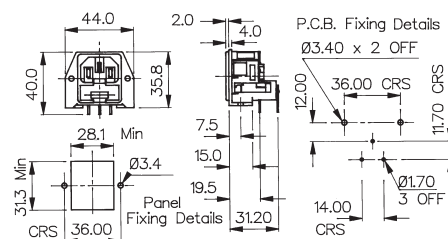


## PC Flanged Mount Fused Inlet



PF0030/PC

- Twin Fused 5 x 20mm
- PC Spills
- 10A, 250V a.c.

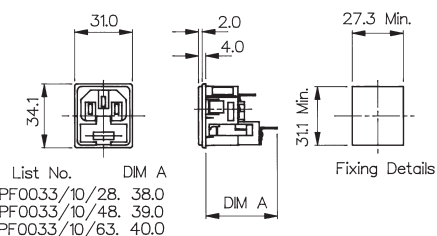


## Snap Fit to Panel Fused Inlet



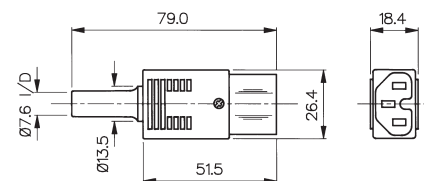
PF0033/10/28

- Twin Fused 5 x 20mm
- Fits Panel Sizes 1.0, 1.5, 2.0 or 3.0mm
- 2.8, 4.8 or 6.3mm Tabs
- 10A, 250V a.c.



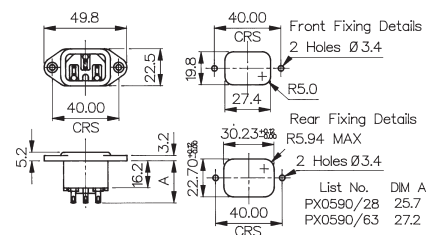
| Specifications             | PF0030/Termination                                                                  | PF0030/PC                                                                           | PF0033/Panel/Termination                                                              |
|----------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Fixing(Panel):             | Flange                                                                              | P.C.B/Flange                                                                        | Snap fit, /10 (1mm), /15 (1.5mm), /20 (2mm), /30 (3mm)                                |
| Terminations:              | /28 (2.8mm solder), /48 (4.8mm tab) /63 (6.3mm tab)                                 | P.C. Spills                                                                         | /28 (2.8mm solder), /48 (4.8mm tab) /63 (6.3mm tab)                                   |
| Max. Rating:               | 10A, 250V a.c.                                                                      | 10A, 250V a.c.                                                                      | 10A, 250V a.c.                                                                        |
| Contact Resistance:        | <15mΩ (per pole)                                                                    | <15mΩ (per pole)                                                                    | <15mΩ (per pole)                                                                      |
| Insulation Resistance:     | >10 <sup>4</sup> MΩ                                                                 | >10 <sup>4</sup> MΩ                                                                 | >10 <sup>4</sup> MΩ                                                                   |
| A.C. Breakdown:            | Pole-Pole 6kV. Poles-Panel 5kV                                                      | Pole-Pole 6kV. Poles-Panel 5kV                                                      | Pole-Pole 6kV. Poles-Panel 5kV                                                        |
| Max. Dissipation Per Fuse: | 2.5W                                                                                | 2.5W                                                                                | 2.5W                                                                                  |
| Operating Temp.            | -20°C to +70°C                                                                      | -20°C to +70°C                                                                      | -20°C to +70°C                                                                        |
| Max. Pin Temp.:            | +70°C                                                                               | +70°C                                                                               | +70°C                                                                                 |
| Mouldings:                 | Nylon, Flammability Rating UL94V-0                                                  | Nylon, Flammability Rating UL94V-0                                                  | Nylon, Flammability Rating UL94V-0                                                    |
| Contacts:                  | Brass: Pins, Nickel Plated. Tabs, Tin Plated                                        | Brass: Pins, Nickel Plated. Tabs, Tin Plated                                        | Brass: Pins, Nickel Plated. Tabs, Tin Plated                                          |
| Approvals:                 |  |  |  |
| Accessories / Notes:       | KT0009 (See Page 150)                                                               |                                                                                     |                                                                                       |
| Mating Connectors:         | PX0587, PX0587/SE, PX0588                                                           | PX0587, PX0587/SE, PX0588                                                           | PX0587, PX0587/SE, PX0588                                                             |
| RoHS                       | Compliant                                                                           | Compliant                                                                           | Compliant                                                                             |

- ⬡ Cable Mounting
- ⬡ Hot Condition
- ⬡ Mates with PX0590 and PX0595
- ⬡ Screw Terminals
- ⬡ 10A, 250V a.c.



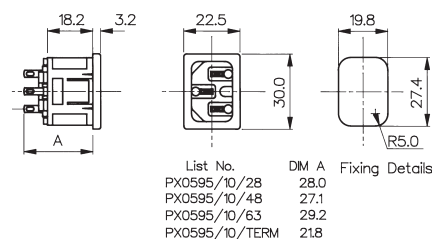
## PX0590/28

- ⬡ Hot Condition
- ⬡ 2.8 or 6.3mm Tabs
- ⬡ 10A, 250V a.c.  
(15A, 250V a.c. UL & CSA)



## PX0595/10/28

- Hot Condition
- Panel Sizes 1, 1.5, 2.0 or 3.0mm
- 2.8, 4.8, 6.3mm Tabs or Screw Terminals
- 10A, 250V a.c. (15A, 250V a.c. UL & CSA)

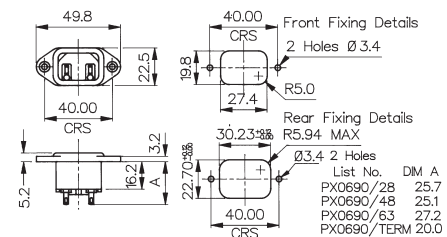
RoHS

## Flanged Mount Inlet



PX0690/28

- Two Pin Class II (No Earth Pin)
- 2.8, 4.8, 6.3mm Tabs or Screw Terminals
- 10A, 250V a.c. (15A, 250V a.c. UL & CSA)

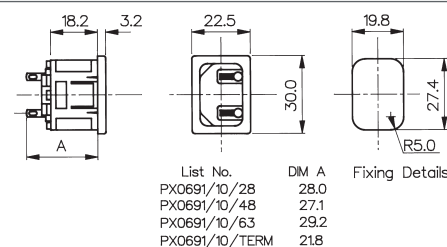


## Snap Fit to Panel Inlet



PX0691/10/28

- Two Pin Class II (No Earth Pin)
- Panel Sizes 1, 1.5, 2.0 or 3.0mm
- 2.8, 4.8, 6.3mm Tabs or Screw Terminals
- 10A, 250V a.c. (15A, 250V a.c. UL & CSA)

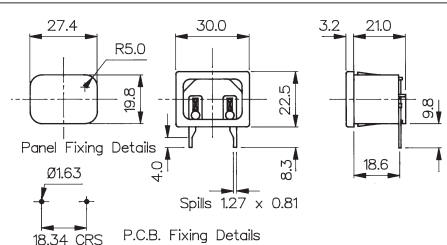


## PC Snap Fit to Panel Inlet



PX0691/10/PC

- Two Pin Class II (No Earth Pin)
- Panel Sizes 1, 1.5, 2.0 or 3.0mm
- PC Spills
- 10A, 250V a.c. (15A, 250V a.c. UL & CSA)



| Specifications                     | PX0690/Term/Col                                                                     | PX0691/Panel/Term/Col                                                               | PX0691/Panel/PC/Col                                                                                     |
|------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| Fixing(Panel):                     | Flange                                                                              | Snap fit, /10 (1mm), /15 (1.5mm), /20 (2mm), /30 (3mm)                              | Snap fit, /10 (1mm), /15 (1.5mm), /20 (2mm), /30 (3mm)                                                  |
| Terminations:                      | /28 (2.8mm solder), /48 (4.8mm tab) /63 (6.3mm tab), /TERM (screw)                  | /28 (2.8mm solder), /48 (4.8mm tab) /63 (6.3mm tab), /TERM (screw)                  | P.C. Spills                                                                                             |
| Colours:                           | No suffix (Black), /WH (White), /GY (Grey)                                          | No suffix (Black), /WH (White), /GY (Grey)                                          | No suffix (Black), /WH (White), /GY (Grey)                                                              |
| Max. Rating:                       | 10A, 250V a.c. (UL & CSA 15A, 250V a.c.)                                            | 10A, 250V a.c. (UL & CSA 15A, 250V a.c.)                                            | 10A, 250V a.c. (UL & CSA 15A, 250V a.c.)                                                                |
| Contact Resistance:                | <10mΩ                                                                               | <10mΩ                                                                               | <10mΩ                                                                                                   |
| Insulation Resistance:             | >10 <sup>3</sup> MΩ                                                                 | >10 <sup>3</sup> MΩ                                                                 | >10 <sup>3</sup> MΩ                                                                                     |
| A.C. Breakdown:                    | Pole-Pole 5kV. Poles-Panel 10kV                                                     | Pole-Pole 5kV. Poles-Panel 5.4kV                                                    | Pole-Pole 5kV. Poles-Panel 5.4kV                                                                        |
| Operating Temp.<br>Max. Pin Temp.: | -40°C to +70°C<br>+70°C                                                             | -40°C to +70°C<br>+70°C                                                             | -40°C to +70°C<br>+70°C                                                                                 |
| Mouldings:                         | Nylon, Flammability Rating UL94V-0                                                  | Nylon, Flammability Rating UL94V-0                                                  | Nylon, Flammability Rating UL94V-0                                                                      |
| Contacts:                          | Brass: Pins, Nickel Plated. Tabs, Tin Plated, Screw Terms, Nickel Plated            | Brass: Pins, Nickel Plated. Tabs, Tin Plated, Screw Terms, Nickel Plated            | Brass: Pins, Nickel Plated. Spills, Tin Plated                                                          |
| Approvals:                         |  |  |                    |
| Accessories / Notes:               | P.No. 11328 (See Page 152)<br>VDE and ENEC approval for black versions only.        | P.No. 11328 (See Page 152)<br>VDE and ENEC approval for black versions only.        | Standard without cover.<br>With cover add /C to P.No.<br>VDE and ENEC approval for black versions only. |
| Mating Connectors:                 | PX0587, PX0587/SE, PX0588                                                           | PX0587, PX0587/SE, PX0588                                                           | PX0587, PX0587/SE, PX0588                                                                               |
| RoHS                               | Compliant                                                                           | Compliant                                                                           | Compliant                                                                                               |

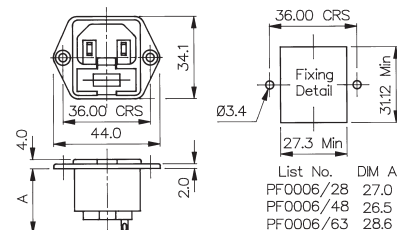


## Flanged Mount Fused Inlet

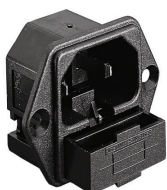


PF0006/28

- Single Fuse 5 x 20mm
- Two Pin Class II (No Earth Pin)
- 2.8, 4.8 or 6.3mm Tabs
- 10A, 250V a.c.

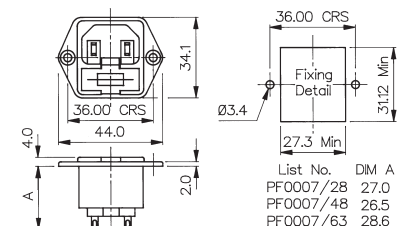


## Flanged Mount Fused Inlet



PF0007/28

- Single Fuse 5 x 20mm (Fuse Contacts Isolated)
- Two Pin Class II (No Earth Pin)
- 2.8, 4.8 or 6.3mm Tabs
- 10A, 250V a.c.

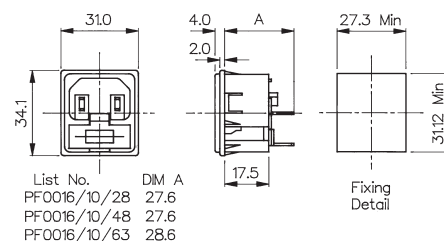


## Snap Fit to Panel Fused Inlet



PF0016/10/28

- Single Fuse 5 x 20mm
- Two Pin Class II (No Earth Pin)
- Fits Panel Sizes 1.0, 1.5, 2.0 or 3.0mm
- 2.8, 4.8 or 6.3mm Tabs
- 10A, 250V a.c.



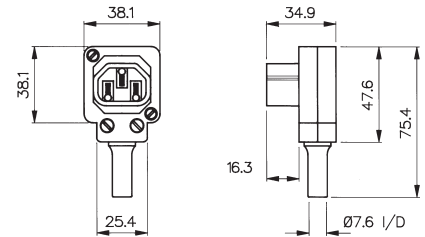
| Specifications         | PF0006/Term/Col                                                                     | PF0007/Term/Col                                                                                                | PF0016/Panel/Term/Col                                                                 |
|------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Fixing(Panel):         | Flange                                                                              | Flange                                                                                                         | Snap fit, /10 (1mm), /15 (1.5mm), /20 (2mm), /30 (3mm)                                |
| Terminations:          | /28 (2.8mm solder), /48 (4.8mm tab)<br>/63 (6.3mm tab)                              | /28 (2.8mm solder), /48 (4.8mm tab)<br>/63 (6.3mm tab)                                                         | /28 (2.8mm solder), /48 (4.8mm tab)<br>/63 (6.3mm tab)                                |
| Colours:               | No suffix (Black), /WH (White), /GY (Grey)                                          | No suffix (Black), /WH (White), /GY (Grey)                                                                     | No suffix (Black), /WH (White), /GY (Grey)                                            |
| Max. Rating:           | 10A, 250V a.c.                                                                      | 10A, 250V a.c.                                                                                                 | 10A, 250V a.c.                                                                        |
| Contact Resistance:    | <10mΩ (<15mΩ including Fuseholder)                                                  | <10mΩ                                                                                                          | <10mΩ (<15mΩ including Fuseholder)                                                    |
| Insulation Resistance: | >10 <sup>9</sup> MΩ                                                                 | >10 <sup>9</sup> MΩ                                                                                            | >10 <sup>9</sup> MΩ                                                                   |
| A.C. Breakdown:        | Pole-Pole 5.5kV. Poles-Panel 4kV                                                    | Pole-Pole 5.5kV. Poles-Panel 4kV                                                                               | Pole-Pole 5.5kV. Poles-Panel 4kV                                                      |
| Operating Temp.        | -40°C to +70°C                                                                      | -40°C to +70°C                                                                                                 | -40°C to +70°C                                                                        |
| Max. Pin Temp.:        | +70°C                                                                               | +70°C                                                                                                          | +70°C                                                                                 |
| Mouldings:             | Nylon, Flammability Rating UL94V-0                                                  | Nylon, Flammability Rating UL94V-0                                                                             | Nylon, Flammability Rating UL94V-0                                                    |
| Contacts:              | Brass: Pins, Nickel Plated. Tabs, Tin Plated                                        | Brass: Pins, Nickel Plated. Tabs, Tin Plated                                                                   | Brass: Pins, Nickel Plated. Tabs, Tin Plated                                          |
| Approvals:             |  |                             |  |
| Accessories / Notes:   | P.No. 11987 (See Page 152)<br>VDE and ENEC approval for black versions only.        | P.No. 11987 (See Page 152)<br>(Note: Fuse contacts isolated)<br>VDE and ENEC approval for black versions only. | P.No. 11987 (See Page 152)<br>VDE and ENEC approval for black versions only.          |
| Mating Connectors:     | PX0587, PX0587/SE, PX0588                                                           | PX0587, PX0587/SE, PX0588                                                                                      | PX0587, PX0587/SE, PX0588                                                             |
| RoHS                   | Compliant                                                                           | Compliant                                                                                                      | Compliant                                                                             |

## Angled Male Connector



PX0685

- Cable Mounting
- Four Position Cable Entry
- Rewirable
- Screw Terminals
- 10A, 250V a.c.

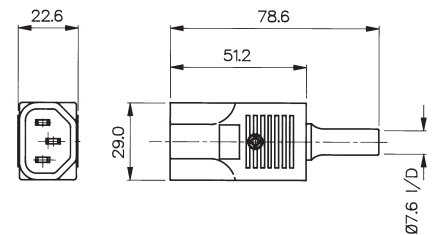


## Straight Male Connector



PX0686

- Cable Mounting
- Rewirable
- Screw Terminals
- 10A, 250V a.c.

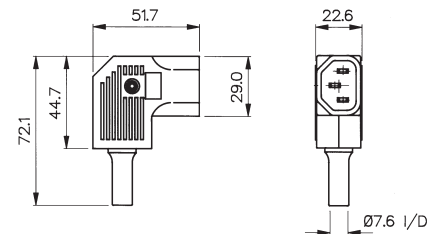


## Side Entry Male Connector



PX0686/SE

- Cable Mounting
- Rewirable
- Screw Terminals
- 10A, 250V a.c.



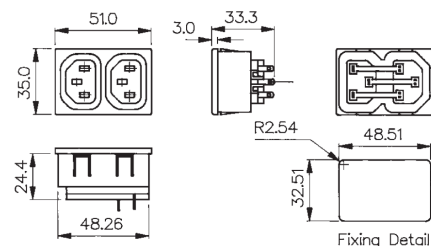
| Specifications         | PX0685/Col                                                                          | PX0686/Col                                                                           | PX0686/SE/Col                                                                         |
|------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Fixing(Panel):         | Screw Terminals                                                                     | Screw Terminals                                                                      | Screw Terminals                                                                       |
| Max. Rating:           | 10A, 250V a.c.                                                                      | 10A, 250V a.c.                                                                       | 10A, 250V a.c.                                                                        |
| Colours:               | No suffix (Black), /WH (White), /GY (Grey)                                          | No suffix (Black), /WH (White), /GY (Grey)                                           | No suffix (Black), /WH (White), /GY (Grey)                                            |
| Contact Resistance:    | <10mΩ                                                                               | <10mΩ                                                                                | <10mΩ                                                                                 |
| Insulation Resistance: | >10 <sup>4</sup> MΩ                                                                 | >10 <sup>4</sup> MΩ                                                                  | >10 <sup>4</sup> MΩ                                                                   |
| A.C. Breakdown:        | Pole-Pole 5.2kV.<br>Poles-Accessible Parts 6kV                                      | Pole-Pole 5kV.<br>Poles-Accessible Parts 5kV                                         | Pole-Pole 5kV.<br>Poles-Accessible Parts 5kV                                          |
| Operating Temp.        | -40°C to +70°C                                                                      | -40°C to +70°C                                                                       | -40°C to +70°C                                                                        |
| Withdrawal Force:      | 10N (Min.) 50N (Max.)                                                               | 10N (Min.) 50N (Max.)                                                                | 10N (Min.) 50N (Max.)                                                                 |
| Mouldings:             | Nylon, Flammability Rating UL94V-0                                                  | Nylon, Flammability Rating UL94V-0                                                   | Nylon, Flammability Rating UL94V-0                                                    |
| Contacts:              | Brass, Nickel Plated.                                                               | Brass, Nickel Plated.                                                                | Brass, Nickel Plated.                                                                 |
| Approvals:             |  |  |  |
| Accessories / Notes:   | Unique octagon module allows choice of 4 cable positions                            | VDE and ENEC approval for black and white versions only.                             | VDE and ENEC approval for black and white versions only.                              |
| Mating Outlets:        | PX0675, PX0695, PX0578, PX0783, PX0793, PX0793/1                                    | PX0675, PX0695, PX0578, PX0783, PX0793, PX0793/1, PX0716, PX0717 & PX0718            | PX0675, PX0695, PX0578, PX0783, PX0793, PX0793/1, PX0716, PX0717 & PX0718             |
| <b>RoHS</b>            | Compliant                                                                           | Compliant                                                                            | Compliant                                                                             |

## Snap Fit To Panel Two Way Outlet



PX0714/2/15/28

- Panel Size 1.5mm
- 2.8mm Solder Tabs
- 10A, 250V a.c.
- (15A, 250V a.c. UL)
- All Terminals Linked



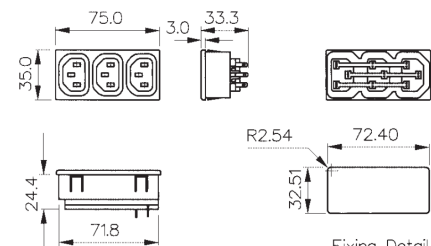
Fixing Detail

## Snap Fit To Panel Three Way Outlet



PX0741/3/15/28

- Panel Size 1.5mm
- 2.8mm Solder Tabs
- 10A, 250V a.c.
- (15A, 250V a.c. UL)
- All Terminals Linked



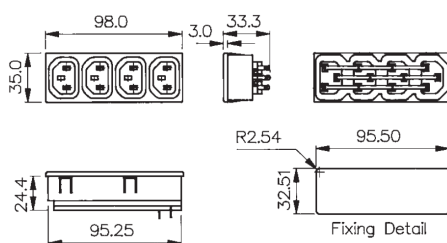
Fixing Detail

## Snap Fit To Panel Four Way Outlet



PX0714/4/15/28

- Panel Size 1.5mm
- 2.8mm Solder Tabs
- 10A, 250V a.c.
- (15A, 250V a.c. UL)
- All Terminals Linked



Fixing Detail

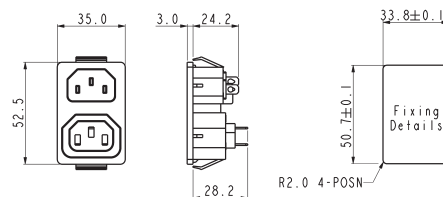
| Specifications    | PX0714/2/15/28                                                                      | PX0714/3/15/28                                                                       | PX0714/4/15/28                                                                        |
|-------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Fixing(Panel):    | Snap fit /15 (1.5mm)                                                                | Snap fit /15 (1.5mm)                                                                 | Snap fit /15 (1.5mm)                                                                  |
| Max. Rating:      | 10A, 250V a.c. 15A, 250V a.c UL                                                     | 10A, 250V a.c. 15A, 250V a.c UL                                                      | 10A, 250V a.c. 15A, 250V a.c UL                                                       |
| Colours:          | No suffix (Black)                                                                   | No suffix (Black)                                                                    | No suffix (Black)                                                                     |
| Operating Temp.   | -20°C to +70°C                                                                      | -20°C to +70°C                                                                       | -20°C to +70°C                                                                        |
| Withdrawal Force: | 10N (Min.) 50N (Max.)                                                               | 10N (Min.) 50N (Max.)                                                                | 10N (Min.) 50N (Max.)                                                                 |
| Mouldings:        | Glass filled Thermoplastic, UL94V-0                                                 | Glass filled Thermoplastic, UL94V-0                                                  | Glass filled Thermoplastic, UL94V-0                                                   |
| Contacts:         | Plated Copper Alloy                                                                 | Plated Copper Alloy                                                                  | Plated Copper Alloy                                                                   |
| Approvals:        |  |  |  |
| Mating Outlets:   | PX0686, PX0686/SE, PZ0500, PZ0600                                                   | PX0686, PX0686/SE, PZ0500, PZ0600                                                    | PX0686, PX0686/SE, PZ0500, PZ0600                                                     |
| RoHS              | Compliant                                                                           | Compliant                                                                            | Compliant                                                                             |

## Snap Fit to Panel Inlet/ Outlet



PX0716/48

- Inlet/Outlet combination
- Panel Size 1.2mm
- 4.8mm tabs
- 10A, 250V a.c.  
(15A, 250V a.c. UL & CSA)

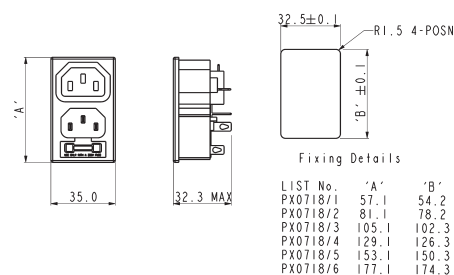


## Snap Fit to Fused Inlet/ Outlet



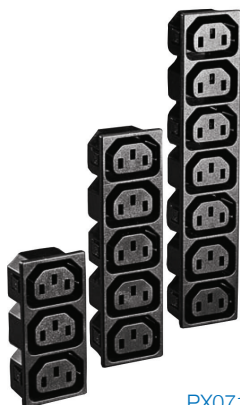
PX0718/x/xx/ST

- Fused Inlet/Outlet combination
- 1-6 outlet versions
- Panel Size 1.5mm
- Terminals:  
inlet: 4.8mm tabs  
outlet: solder tags
- 10A, 250V a.c.  
(15A, 250V a.c. UL)
- All outlet terminals linked,  
common earth throughout.



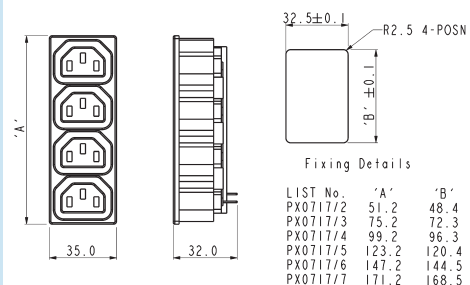
| Specifications         | PX0716/Termination                                                                  | PX0718/x/15/Termination                                                             |
|------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Fixing:                | Snap fit 1.2mm accommodation                                                        | Snap fit 1.5mm accommodation                                                        |
| Terminations:          | /48 (4.8mm tab)                                                                     | /ST (outlet solder tag, inlet 4.8mm tab)                                            |
| Max. Rating:           | 10A, 250V a.c.<br>(UL 15A, 125V a.c.)                                               | 10A, 250V a.c.<br>(UL 15A, 250V a.c.)                                               |
| Insulation Resistance: | >100MΩ (500V d.c., 1 min.)                                                          | >100MΩ (500V d.c., 1 min.)                                                          |
| Dielectric Strength:   | 2kV (50Hz, 1 min.)                                                                  | 2kV (50Hz, 1 min.)                                                                  |
| Operating Temp.        | -20°C to +70°C                                                                      | -20°C to +70°C                                                                      |
| Max. Pin Temp:         | +70°C                                                                               | +70°C                                                                               |
| Mouldings:             | Nylon 66, Flammability Rating UL94V-0                                               | Glass filled Thermoplastic, UL94V-0                                                 |
| Contacts:              | Brass, Tin Plated                                                                   | Brass, Tin Plated                                                                   |
| Approvals:             |  |  |
| Accessories / Notes:   |                                                                                     |                                                                                     |
| Mating With:           | PX0587, PX0587/SE, PX0588, PX0686,<br>PX0686/SE                                     | PX0587, PX0587/SE, PX0588, PX0686,<br>PX0686/SE                                     |
| <b>RoHS</b>            | Compliant                                                                           | Compliant                                                                           |

## Snap Fit to Panel Outlet



PX0717/x/xx/ST

- Snap Fit to Panel
- Panel Size 1.5mm
- Solder Tabs
- 10A, 250V a.c.  
(15A, 250V a.c. UL)
- All Terminals Linked

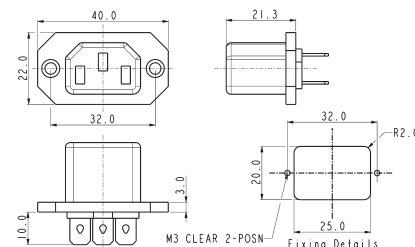


## Flange Mount Outlet



PX0578/63

- Front of Panel Mount
- 6.3mm tabs
- 10A, 250V a.c.  
(15A, 250V a.c. UL)



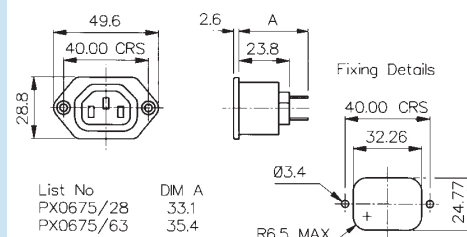
| Specifications         | PX0717/x/15/Termination                                                             | PX0578/Termination                                                                  |
|------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Fixing:                | Snap fit 1.5mm accommodation                                                        | Flange                                                                              |
| Terminations:          | /ST (solder)                                                                        | /63 (6.3mm tab)                                                                     |
| Max. Rating:           | 10A, 250V a.c.<br>(UL 15A, 250v a.c.)                                               | 10A, 250V a.c.<br>(UL 15A, 250v a.c.)                                               |
| Insulation Resistance: | >100MΩ (500V d.c., 1 min.)                                                          | >100MΩ (500V d.c., 1 min.)                                                          |
| Dielectric Strength:   | 2kV (50Hz, 1 min.)                                                                  | 2kV (50Hz, 1 min.)                                                                  |
| Operating Temp.        | -20°C to +70°C                                                                      | -20°C to +70°C                                                                      |
| Max. Pin Temp:         |                                                                                     |                                                                                     |
| Mouldings:             | Glass filled Thermoplastic, UL94V-0                                                 | Glass filled Thermoplastic, UL94V-0                                                 |
| Contacts:              | Brass, Tin plated                                                                   | Brass, Tin plated                                                                   |
| Approvals:             |  |  |
| Accessories / Notes:   |                                                                                     |                                                                                     |
| Mating With:           | PX0686, PX0686/SE                                                                   | PX0686, PX0686/SE                                                                   |
| <b>RoHS</b>            | Compliant                                                                           | Compliant                                                                           |

## Flange Mount Outlet



PX0675/28

- 2.8mm or 6.3mm Tabs
- 10A, 250V a.c.  
(15A, 250V a.c. UL & CSA).

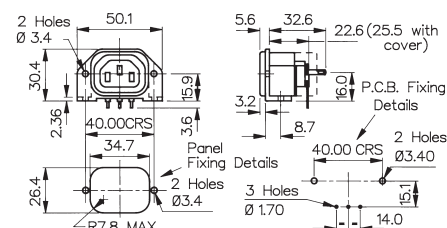


## PC Flange Rear Mount Outlet



PX0675/PC

- PC Spills
- 10A, 250V a.c.  
(15A, 250V a.c. UL & CSA)



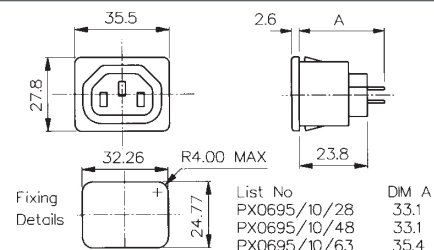
| Specifications         | PX0675/Term/Col                                                                                                                                                                                                                                                                                                                                                                              | PX0675/PC/Col                                                                                                                                                                                                                                                                                                                                   |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Fixing:                | Flange                                                                                                                                                                                                                                                                                                                                                                                       | P.C.B./Flange                                                                                                                                                                                                                                                                                                                                   |
| Terminations:          | /28 (2.8mm solder), /48 (4.8mm tab),<br>/63 (6.3mm tab)                                                                                                                                                                                                                                                                                                                                      | P.C. Spills                                                                                                                                                                                                                                                                                                                                     |
| Colours:               | No suffix (Black), /WH (White), /GY (Grey)                                                                                                                                                                                                                                                                                                                                                   | No suffix (Black), /WH (White), /GY (Grey)                                                                                                                                                                                                                                                                                                      |
| Max. Rating:           | 10A, 250V a.c.<br>(UL & CSA 15A, 250V a.c.)                                                                                                                                                                                                                                                                                                                                                  | 10A, 250V a.c.<br>(UL & CSA 15A, 250V a.c.)                                                                                                                                                                                                                                                                                                     |
| Contact Resistance:    | <10mΩ                                                                                                                                                                                                                                                                                                                                                                                        | <10mΩ                                                                                                                                                                                                                                                                                                                                           |
| Insulation Resistance: | >10 <sup>4</sup> MΩ                                                                                                                                                                                                                                                                                                                                                                          | >10 <sup>4</sup> MΩ                                                                                                                                                                                                                                                                                                                             |
| A.C. Breakdown:        | Pole-Pole 7kV. Poles-Panel 9kV                                                                                                                                                                                                                                                                                                                                                               | Pole-Pole 4kV. Poles-Panel 9kV                                                                                                                                                                                                                                                                                                                  |
| Operating Temp.        | -40°C to +70°C                                                                                                                                                                                                                                                                                                                                                                               | -40°C to +70°C                                                                                                                                                                                                                                                                                                                                  |
| Mouldings:             | Nylon, Flammability Rating UL94V-0                                                                                                                                                                                                                                                                                                                                                           | Nylon, Flammability Rating UL94V-0                                                                                                                                                                                                                                                                                                              |
| Contacts:              | Brass, Tin Plated                                                                                                                                                                                                                                                                                                                                                                            | Brass, Tin Plated                                                                                                                                                                                                                                                                                                                               |
| Approvals:             |     UR approvals does not cover 4.8mm tab option |     |
| Accessories / Notes:   | P.No. 12075, KT0006, 14228<br>(See Pages 150-152)<br>VDE and ENEC approval for black versions only.                                                                                                                                                                                                                                                                                          | Standard without cover.<br>With cover add /12599 to P.No.,<br>14228 (see page 151)<br>VDE and ENEC approval for black versions only.                                                                                                                                                                                                            |
| Mates with:            | PX0685, PX0686, PX0686/SE                                                                                                                                                                                                                                                                                                                                                                    | PX0685, PX0686, PX0686/SE                                                                                                                                                                                                                                                                                                                       |
| RoHS                   | Compliant                                                                                                                                                                                                                                                                                                                                                                                    | Compliant                                                                                                                                                                                                                                                                                                                                       |

## Snap Fit to Panel Outlet



PX0695/10/28

- Panel Sizes 1, 1.5, 2.0 or 3.0mm
- 2.8 or 6.3mm Tabs
- 10A, 250V a.c.  
(15A, 250V a.c. UL & CSA)

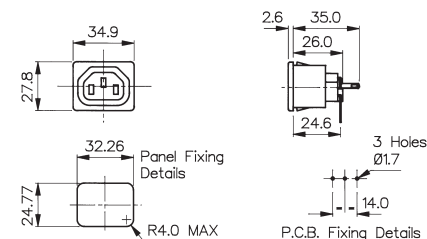


## PC Snap Fit to Panel Outlet



PX0695/10/PC

- Panel Sizes 1, 1.5, 2.0 or 3.0mm
- PC Spills
- 10A, 250V a.c.  
(15A, 250V a.c. UL & CSA)



## Specifications

## PX0695/Panel/Term/Col

## PX0695/Panel/PC/Col

|                        |                                                                                         |
|------------------------|-----------------------------------------------------------------------------------------|
| Fixing:                | Snap fit, /10 (1mm), /15 (1.5mm), /20 (2mm), /30 (3mm)                                  |
| Terminations:          | /28 (2.8mm solder), /63 (6.3mm tab)                                                     |
| Colours:               | No suffix (Black), /WH (White), /GY (Grey)                                              |
| Max. Rating:           | 10A, 250V a.c.<br>(UL & CSA 15A, 250V a.c.)                                             |
| Contact Resistance:    | <10mΩ                                                                                   |
| Insulation Resistance: | >10 <sup>4</sup> MΩ                                                                     |
| A.C. Breakdown:        | Pole-Pole 7kV. Poles-Panel 9kV                                                          |
| Operating Temp.        | -40°C to +70°C                                                                          |
| Mouldings:             | Nylon, Flammability Rating UL94V-0                                                      |
| Contacts:              | Brass, Tin Plated                                                                       |
| Approvals:             |      |
| Accessories / Notes:   | P.No. 12075, 14228 (See Page 151-152)<br>VDE and ENEC approval for black versions only. |

|                        |                                                                                     |
|------------------------|-------------------------------------------------------------------------------------|
| Fixing:                | Snap fit, /10 (1mm), /15 (1.5mm), /20 (2mm), /30 (3mm)                              |
| Terminations:          | P.C. Spills                                                                         |
| Colours:               | No suffix (Black), /WH (White), /GY (Grey)                                          |
| Max. Rating:           | 10A, 250V a.c.<br>(UL & CSA 15A, 250V a.c.)                                         |
| Contact Resistance:    | <10mΩ                                                                               |
| Insulation Resistance: | >10 <sup>4</sup> MΩ                                                                 |
| A.C. Breakdown:        | Pole-Pole 4kV. Poles-Panel 9kV                                                      |
| Operating Temp.        | -40°C to +70°C                                                                      |
| Mouldings:             | Nylon, Flammability Rating UL94V-0                                                  |
| Contacts:              | Brass, Tin Plated                                                                   |
| Approvals:             |  |
| Accessories / Notes:   | P.No. 14228 (see page 151)<br>VDE and ENEC approval for black versions only.        |

## Mates with:

PX0685, PX0686, PX0686/SE,

PX0685, PX0686, PX0686/SE,

RoHS

Compliant

Compliant

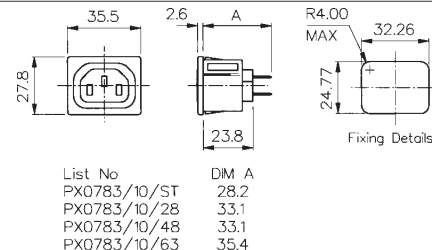


## Snap Fit to Panel Outlet



PX0783/10/28

- Shuttered
- Panel Sizes 1, 1.5, 2.0 or 3.0mm
- 2.8, 4.8 or 6.3mm Tabs
- 10A, 250V a.c.  
(15A, 250V a.c. UL & CSA)

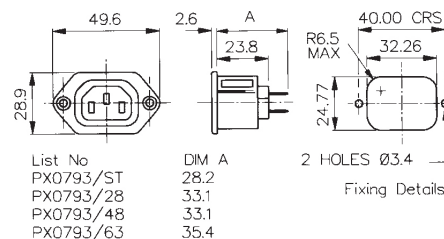


## Flange Mount Outlet



PX0793/28

- Shuttered
- 2.8, 4.8 or 6.3mm Tabs
- 10A, 250V a.c.  
(15A, 250V a.c. UL & CSA)

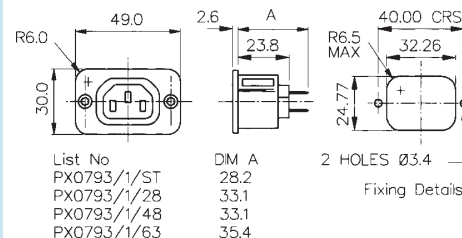


## PC Snap Fit to Panel Outlet



PX0793/1/Termination

- Shuttered
- Rectangular Flange Mount Outlet
- 2.8, 4.8 or 6.3mm Tabs
- 10A, 250V a.c.  
(15A, 250V a.c. UL & CSA)



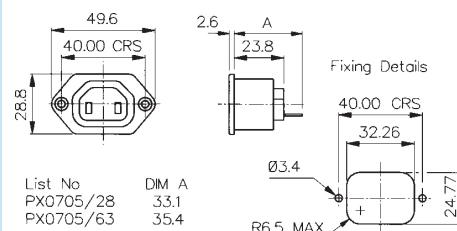
| Specifications         | PX0783/Panel/Term/Col                                                                                                            | PX0793/Panel/PC/Col                                                                                                              | PX0793/1/Term/Col                                                                                                           |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Fixing:                | Snap fit, /10 (1mm), /15 (1.5mm), /20 (2mm), /30 (3mm)                                                                           | Flange                                                                                                                           | Rectangular Flange                                                                                                          |
| Terminations:          | /28 (2.8mm solder), /48 (4.8mm tab)<br>/63 (6.3mm tab), /ST (solder)                                                             | /28 (2.8mm solder), /48 (4.8mm tab)<br>/63 (6.3mm tab), /ST (solder)                                                             | /28 (2.8mm solder), /48 (4.8mm tab)<br>/63 (6.3mm tab), /ST (solder)                                                        |
| Colours:               | No suffix (Black), /WH (White), /GY (Grey)                                                                                       | No suffix (Black), /WH (White), /GY (Grey)                                                                                       | No suffix (Black), /WH (White), /GY (Grey)                                                                                  |
| Max. Rating:           | 10A, 250V a.c.<br>(UL & CSA 15A, 250V a.c.)                                                                                      | 10A, 250V a.c.<br>(UL & CSA 15A, 250V a.c.)                                                                                      | 10A, 250V a.c.<br>(UL & CSA 15A, 250V a.c.)                                                                                 |
| Contact Resistance:    | <10mΩ                                                                                                                            | <10mΩ                                                                                                                            | <10mΩ                                                                                                                       |
| Insulation Resistance: | >10 <sup>4</sup> MΩ                                                                                                              | >10 <sup>4</sup> MΩ                                                                                                              | >10 <sup>4</sup> MΩ                                                                                                         |
| A.C. Breakdown:        | Pole-Pole 7kV. Poles-Panel 9kV                                                                                                   | Pole-Pole 7kV. Poles-Panel 9kV                                                                                                   | Pole-Pole 7kV. Poles-Panel 9kV                                                                                              |
| Operating Temp.        | -40°C to +70°C                                                                                                                   | -40°C to +70°C                                                                                                                   | -40°C to +70°C                                                                                                              |
| Mouldings:             | Nylon, Flammability Rating UL 94V-0                                                                                              | Nylon, Flammability Rating UL 94V-0                                                                                              | Nylon, Flammability Rating UL 94V-0                                                                                         |
| Contacts:              | Brass, Tin Plated                                                                                                                | Brass, Tin Plated                                                                                                                | Brass, Tin Plated                                                                                                           |
| Approvals:             |  UR approvals does not cover 4.8mm tab option |  UR approvals does not cover 4.8mm tab option |  US approvals only covers /ST versions |
| Accessories / Notes:   | P.No. 12075, 14228 (See Page 151-152)<br>VDE and ENEC approval for black versions only.                                          | P.No. 12075, KT0006, 14228 (See Pages 150-152)<br>VDE and ENEC approval for black versions only.                                 | P.No. 12075, KT0006, 14228 (See Pages 150-152)<br>VDE and ENEC approval for black versions only.                            |
| Mates with:            | PX0685, PX0686, PX0686/SE                                                                                                        | PX0685, PX0686, PX0686/SE                                                                                                        | PX0685, PX0686, PX0686/SE                                                                                                   |
|                        | <b>RoHS</b><br>Compliant                                                                                                         | Compliant                                                                                                                        | Compliant                                                                                                                   |

## Flange Mount Outlet



PX0705/28

- Two Pin Class II (No Earth Pin)
- 2.8, 4.8 or 6.3mm Tabs
- 10A, 250V a.c.  
(15A, 250V a.c. UL & CSA)

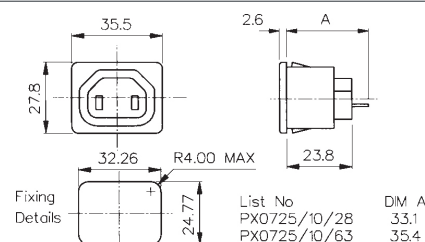


## Snap Fit to Panel Outlet



PX0725/10/28

- Two Pin Class II (No Earth Pin)
- Panel Sizes 1, 1.5, 2.0 or 3.0mm
- 2.8, 4.8 or 6.3mm Tabs
- 10A, 250V a.c.  
(15A, 250V a.c. UL & CSA)



## Specifications

## PX0705/Term/Col

## PX0725/Panel/Term/Col

Fixing: Flange

Terminations: /28 (2.8mm solder), /48 (4.8mm tab)  
/63 (6.3mm tab)

Colours: No suffix (Black), /WH (White), /GY (Grey)

Max. Rating: 10A, 250V a.c.  
(UL & CSA 15A, 250V a.c.)

Contact Resistance: <10mΩ

Insulation Resistance: >10<sup>4</sup> MΩ

A.C. Breakdown: Pole-Pole 4kV. Poles-Panel 9kV

Operating Temp. -40°C to +70°C

Mouldings: Nylon, Flammability Rating UL94V-0

Contacts: Brass, Tin Plated

Approvals:     UR approvals does not cover 4.8mm tab option

Accessories / Notes: P.No. 12075 (See Page 152)  
VDE and ENEC approval for black versions only.

RoHS

Compliant

Snap fit, /10 (1mm), /15 (1.5mm),  
/20 (2mm), /30 (3mm)

/28 (2.8mm solder), /48 (4.8mm tab)  
/63 (6.3mm tab)

No suffix (Black), /WH (White), /GY (Grey)

10A, 250V a.c.  
(UL & CSA 15A, 250V a.c.)

<10mΩ

>10<sup>4</sup> MΩ

Pole-Pole 7kV. Poles-Panel 9kV

-40°C to +70°C

Nylon, Flammability Rating UL94V-0

Brass, Tin Plated

    UR approvals does not cover 4.8mm tab option

P.No. 12075 (See Page 152)  
VDE and ENEC approval for black versions only.

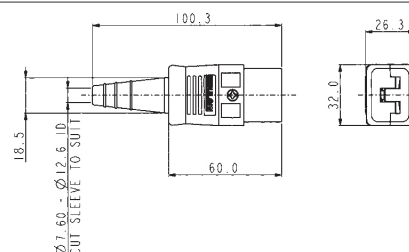
Compliant

## C19 Straight Female Cable Connector



PX0599

- Rewirable Screw Terminals
- 16A, 250V a.c.
- (20A, 250V a.c. UL and CSA)
- Wire Sizes (max);  
3 x 2.5mm<sup>2</sup>, 3 x 12AWG
- Overall cable diameter up to 12mm

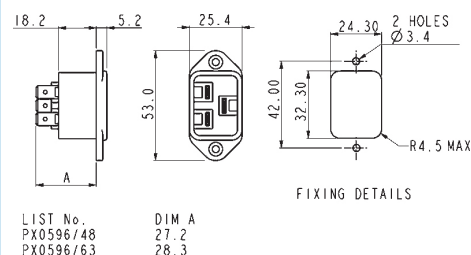


## C20 Flange Mount Inlet



PX0596

- 6.3mm or 4.8mm Tabs
- 16A, 250V a.c.
- (20A, 250V a.c. UL and CSA)

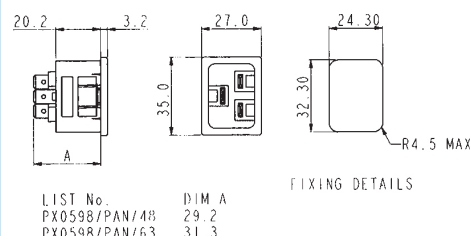


## C20 Snap Fit to Panel Inlet



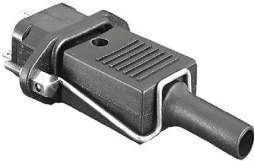
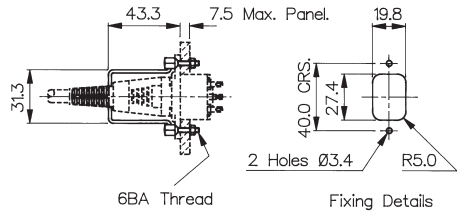
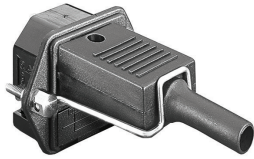
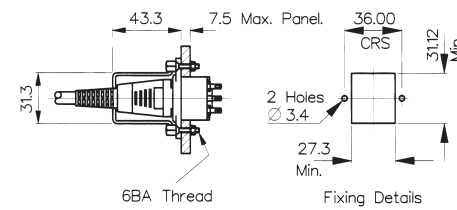
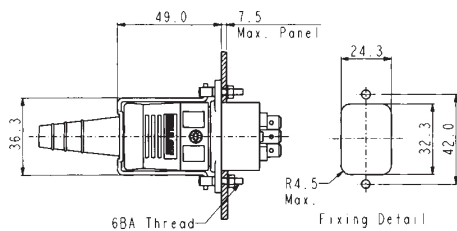
PX0598

- Fits panel sizes 1, 1.5, 2.0 or 3.0mm
- 6.3mm or 4.8mm Tabs
- 16A, 250V a.c.
- (20A, 250V a.c. UL and CSA)



| Specifications                             | PX0599                                                                              | PX0596/Termination                                                                  | PX0598/Panel/Termination                                                              |
|--------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Fixing (Panel):                            |                                                                                     | Flange                                                                              | Snap Fit, /10 (1mm), /15 (1.5mm), /20 (2mm), /30 (3mm)                                |
| Terminations:                              | Screw Terminals                                                                     | /63 (6.3mm tab), /48 (4.8mm tab)                                                    | /63 (6.3mm tab), /48 (4.8mm tab)                                                      |
| Max. Rating:                               | 16A, 250V ac<br>20A, 250V ac UL and CSA                                             | 16A, 250V ac<br>20A, 250V ac UL and CSA                                             | 16A, 250V ac<br>20A, 250V ac UL and CSA                                               |
| Insulation Resistance:                     | >5MΩ                                                                                | >10 <sup>6</sup> MΩ                                                                 | >10 <sup>6</sup> MΩ                                                                   |
| Dielectric Strength<br>Between contacts:   | 1.5kV ac                                                                            | 1.5kV ac                                                                            | 1.5kV ac                                                                              |
| Between contacts &<br>accessible surfaces: | 3kV ac                                                                              | 3kV ac                                                                              | 3kV ac                                                                                |
| Operating Temp. Range:                     | −40°C to +70°C                                                                      | −40°C to +70°C                                                                      | −40°C to +70°C                                                                        |
| Max. Pin Temp.:                            |                                                                                     | 70°C                                                                                | 70°C                                                                                  |
| Withdrawal Force:                          | 15N Min, 60N Max.                                                                   |                                                                                     |                                                                                       |
| Mouldings:                                 | Nylon, Flammability Rating UL94V-0                                                  | Nylon, Flammability Rating UL94V-0                                                  | Nylon, Flammability Rating UL 94V-0                                                   |
| Contacts:                                  | Brass, Clean                                                                        | Pins: Brass, Nickel Plated<br>Tabs: Brass, Tin Plate                                | Pins: Brass, Nickel Plated<br>Tabs: Brass, Tin Plated                                 |
| Approvals:                                 |  |  |  |
| Mating Connectors:                         | C20 Inlets; PX0596 Flange and PX0598 Snapfit                                        | PX0599 Rewirable Connector                                                          | PX0599 Rewirable Connector                                                            |
| Accessories:                               |                                                                                     | KT0012, P.No. 14064<br>(see Pages 150 & 152)                                        | P.No. 14064 (see Page 152)                                                            |
| RoHS                                       | Compliant                                                                           | Compliant                                                                           | Compliant                                                                             |



|                |                                                                                                                                       |                                                                                                                                                |                                                                                                                                                                                                        |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Retaining Clip |  <p>KT0006<br/>(Shown with PX0580 &amp; PX0587)</p>  | <ul style="list-style-type: none"><li>○ Prevents Accidental Removal</li><li>○ Fits flanged inlets</li></ul>                                    |  <p>43.3 7.5 Max. Panel 19.8<br/>31.3 40.0 CRS 27.4<br/>2 Holes Ø3.4 R5.0<br/>6BA Thread Fixing Details</p>         |
| Retaining Clip |  <p>KT0009<br/>(Shown with PF0001 &amp; PX0587)</p>  | <ul style="list-style-type: none"><li>○ Prevents Accidental Removal</li><li>○ Fits fused flanged inlets)</li></ul>                             |  <p>43.3 7.5 Max. Panel 36.00 CRS<br/>31.3 27.3 Min. 31.12 Min.<br/>2 Holes Ø 3.4<br/>6BA Thread Fixing Details</p> |
| Retaining Clip |  <p>KT0012<br/>(Shown with PX0596 &amp; PX0599)</p> | <ul style="list-style-type: none"><li>○ Prevents Accidental Removal</li><li>○ For use with PX0596 flanged inlet and PX0599 connector</li></ul> |  <p>49.0 7.5 Max. Panel 24.3<br/>36.3 32.3 42.0<br/>R4.5 Max.<br/>6BA Thread Fixing Detail</p>                     |

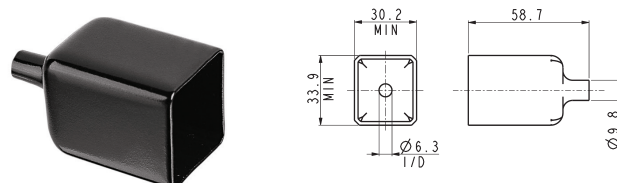
| Specifications | KT0006                                                                                                                                                                                | KT0009                                                                                                                                            | KT0012                                                                                  |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
|                | Retaining Clip to prevent accidental removal of connector.<br><br>Fits: PX0580 + PX0587 PX0590 + PX0597<br>PX0690 + PX0587<br>PX0675 + PX0686<br>PX0793 + PX0686<br>PX0793/1 + PX0686 | Retaining Clip to prevent accidental removal of connector.<br><br>Fits: PF0001+ PX0587<br>PF0001/PC +PX0587<br>PF0002 + PX0587<br>PF0030 + PX0587 | Retaining Clip to prevent accidental removal of connector.<br><br>Fits: PX0596 + PX0599 |
| Material:      | Clip: Stainless Steel, other parts Brass, Nickel Plated                                                                                                                               | Clip: Stainless Steel, other parts Brass, Nickel Plated                                                                                           | Clip: Stainless Steel, other parts Brass, Nickel Plated                                 |
| RoHS           | Compliant                                                                                                                                                                             | Compliant                                                                                                                                         | Compliant                                                                               |

Blanking Cover



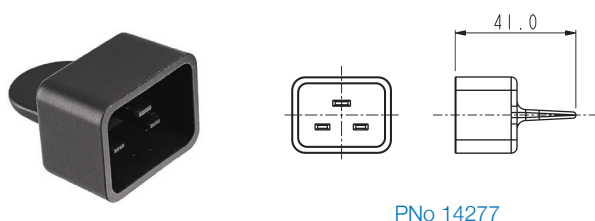
PNo 14228

Insulation Boot



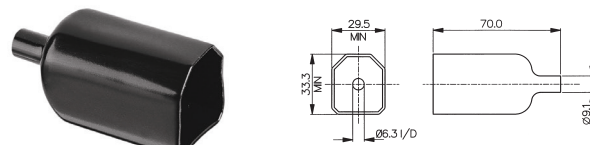
PNo 14340

Blanking Cover



PNo 14277

Insulation Boot



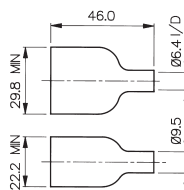
PNo 14317

- Blanking covers
- Protects Front of Outlet Connector
- Protects Against Accidental Electric Shock

- PVC Insulation Boots
- Protects Rear of Connector
- Protects Against Accidental Electric Shock

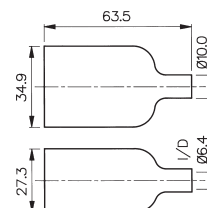
| Specifications        | P.No. 14228                                                                                               | P.No. 14277                              | P.No. 14340                                             | P.No. 14317                                                       |
|-----------------------|-----------------------------------------------------------------------------------------------------------|------------------------------------------|---------------------------------------------------------|-------------------------------------------------------------------|
|                       | Blanking cover for<br>PX0578,<br>PX0675,<br>PX0695,<br>PX0783,<br>PX0793,<br>PX0716,<br>PX0717,<br>PX0718 | Blanking cover for<br>PX0591,<br>PX0592, | Insulation boot for<br>PS20,<br>PS21,<br>PS25,<br>PS25, | Insulation boot for<br>PF0030,<br>PF0033<br>(except /PC versions) |
| Operating Temp:       | -40°C to +70°C                                                                                            | -40°C to +70°C                           | -20°C to +60°C                                          | -20°C to +60°C                                                    |
| Max. Working Voltage: | 250V a.c.                                                                                                 | 250V a.c.                                | 250V a.c.                                               | 250V a.c.                                                         |
| Flash Tested:         | 2kV a.c.                                                                                                  | 2kV a.c.                                 | 2kV a.c.                                                | 2kV a.c.                                                          |
| Material:             | Nylon                                                                                                     | Nylon                                    | P.V.C.                                                  | P.V.C.                                                            |
| Flammability Rating:  | UL94V-0                                                                                                   | UL94V-0                                  | UL94V-0                                                 | UL94V-0                                                           |
| <b>RoHS</b>           | Compliant                                                                                                 | Compliant                                | Compliant                                               | Compliant                                                         |

Insulation Boot



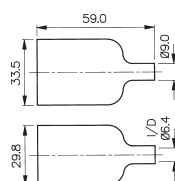
PNo 11328

Insulation Boot



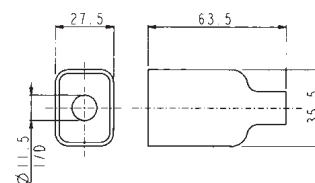
PNo 12075

Insulation Boot



PNo 11987

Insulation Boot



PNo 14064

- PVC Insulation Boots
- Protects Rear of Connector
- Protects Against Accidental Electric Shock

| Specifications        | P.No. 11328                                                               | P.No. 11987                                                                                                               | P.No. 12075                                                                                                                | P.No. 14064                              |
|-----------------------|---------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|------------------------------------------|
|                       | Insulation boot for<br>PX0575,<br>PX0579,<br>PX0580,<br>PX0590,<br>PX0595 | Insulation boot for<br>PF range<br>PF0001,<br>PF0002,<br>PF0006,<br>PF0007,<br>PF0011,<br>PF0016<br>(Except /PC versions) | Insulation boot for<br>PX0675,<br>PX0695,<br>PX0705,<br>PX0725,<br>PX0783,<br>PX0793,<br>PX0793/1<br>(Except /PC versions) | Insulation boot for<br>PX0596,<br>PX0598 |
| Operating Temp:       | -20°C to +60°C                                                            | -20°C to +60°C                                                                                                            | -20°C to +60°C                                                                                                             | -20°C to +60°C                           |
| Max. Working Voltage: | 250V a.c.                                                                 | 250V a.c.                                                                                                                 | 250V a.c.                                                                                                                  | 250V a.c.                                |
| Flash Tested:         | 2kV a.c.                                                                  | 2kV a.c.                                                                                                                  | 2kV a.c.                                                                                                                   | 2kV a.c.                                 |
| Material:             | P.V.C.                                                                    | P.V.C.                                                                                                                    | P.V.C.                                                                                                                     | P.V.C.                                   |
| Flammability Rating:  | UL94V-0                                                                   | UL94V-0                                                                                                                   | UL94V-0                                                                                                                    | UL94V-0                                  |
| <b>RoHS</b>           | Compliant                                                                 | Compliant                                                                                                                 | Compliant                                                                                                                  | Compliant                                |



Distribution Units have combinations of **four, five or six outlets** together with **neon indicator**, fuse and switch options. The **three sizes** are available in various combinations and, other than the compact version, all have shuttered outlets. The larger enclosed versions are also available with **EMI filtering**.

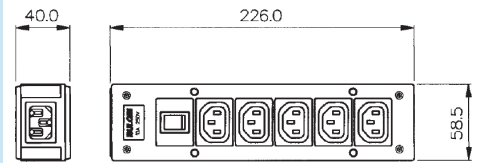


#### IEC Distribution Units



PXD301/050/01/1

- Five Shuttered Outlets
- 5 x 20mm Fuseholder
- Neon Indicator
- Filtered or Non-filtered
- EN60320 Inlet
- 10A, 250V a.c.

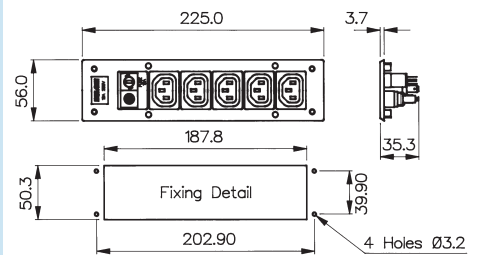


#### IEC Panel Mount Distribution Unit



PXD100/050/01/1

- Five Shuttered Outlets
- 5 x 20mm Fuseholder
- Neon Indicator
- Screw Fit to Panel
- 10A, 250V a.c.

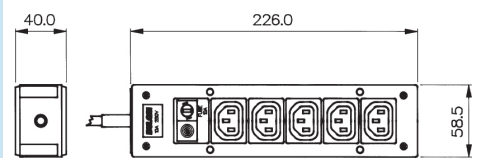


#### IEC Distribution Unit



PXD303/050/01/1  
 PXD306/050/01/1

- Five Shuttered Outlets
- 5 x 20mm Fuseholder
- Neon Indicator
- Filtered or Non-filtered
- 2 Metre Cable with BS1363 Plug
- 10A, 250V a.c.



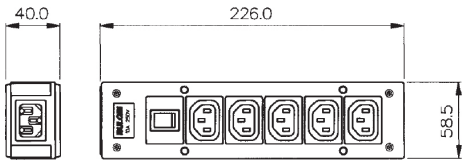
| Part No.        | Inlet                             | Outlet      | EMI Filter | Neon Indicator | Fuse | Illuminated Switch | Approvals |
|-----------------|-----------------------------------|-------------|------------|----------------|------|--------------------|-----------|
| Panel Style:    |                                   |             |            |                |      |                    |           |
| PXD100/050/01/1 |                                   | 5 Shuttered |            | 1              | 1    |                    | Ⓢ         |
| Box Style:      |                                   |             |            |                |      |                    |           |
| PXD301/050/01/1 | 1                                 | 5 Shuttered |            | 1              | 1    |                    | Ⓢ         |
| PXD301/050/07/1 | 1                                 | 5 Shuttered |            |                |      | Red                |           |
| PXD301/050/08/1 | 1                                 | 5 Shuttered |            |                |      | Green              |           |
| PXD301/550/01/1 | 1                                 | 5 Shuttered | ●          | 1              | 1    |                    |           |
| PXD301/550/07/1 | 1                                 | 5 Shuttered | ●          |                |      | Red                | Ⓢ         |
| PXD301/550/08/1 | 1                                 | 5 Shuttered | ●          |                |      | Green              |           |
| PXD303/050/01/1 | 2m cable with BS1363 plug         | 5 Shuttered |            | 1              | 1    |                    |           |
| PXD303/050/07/1 | 2m cable with BS1363 plug         | 5 Shuttered |            |                |      | Red                |           |
| PXD303/050/08/1 | 2m cable with BS1363 plug         | 5 Shuttered |            |                |      | Green              |           |
| PXD303/550/01/1 | 2m cable with BS1363 plug         | 5 Shuttered | ●          | 1              | 1    |                    |           |
| PXD303/550/07/1 | 2m cable with BS1363 plug         | 5 Shuttered | ●          |                |      | Red                |           |
| PXD303/550/08/1 | 2m cable with BS1363 plug         | 5 Shuttered | ●          |                |      | Green              |           |
| PXD306/050/01/1 | 2m cable with CEE7 Sheet VII plug | 5 Shuttered |            | 1              | 1    |                    | Ⓢ         |

IEC Distribution Unit



PXD301/050/07/1

- Five Shuttered Outlets
- Illuminated Switch
- Filtered or Non-Filtered
- EN60320 Inlet
- 10A, 250V a.c.

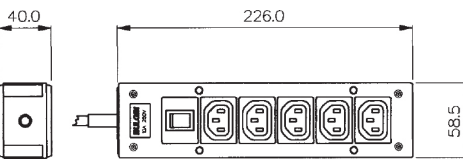


IEC Distribution Unit



PXD303/050/08/1

- Five Shuttered Outlets
- Illuminated Switch
- Filtered or Non-Filtered
- 2m Cable and BS1363 plug
- 10A, 250V a.c.



**Specifications**

|                    |                                                            |
|--------------------|------------------------------------------------------------|
| Mouldings:         | Thermoplastic                                              |
| Housing:           | ABS                                                        |
| Connectors:        | Nylon                                                      |
| Contacts:          | Outlets: Brass, Tin Plated<br>Inlets: Brass, Nickel Plated |
| Voltage Rating:    | 250V a.c. 50/60Hz                                          |
| Current Rating:    | 10A                                                        |
| Proof Voltage:     | 2kV                                                        |
| Temp. Range:       | -5°C to +60°C                                              |
| Mating Connectors: | PX0686, PX0686/SE                                          |
| <b>RoHS</b>        | Compliant                                                  |

**Filter**

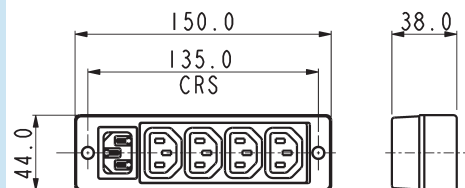
|                     |                                           |
|---------------------|-------------------------------------------|
| Max. Earth Leakage: |                                           |
| Current:            | <0.35mA (at 250V, 50Hz)                   |
| Capacitor           | 2 x 2.2nF (Y), 1 x 15nF (X)               |
| Inductance:         | 2 x 0.35mH                                |
| Fuse:               | 5 x 20mm, 10A (ceramic HRC type, IEC 127) |

Compact Distribution Unit



PXD200

- Four Outlets
- EN60320 Inlet
- 10A, 250V ac
- cULus Approval

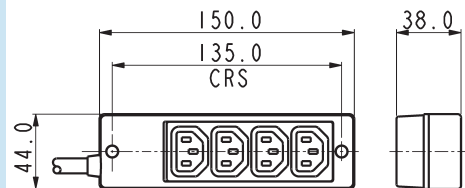


Compact Distribution Unit



PXD201

- Four Outlets
- 2m Cable with BS1363 connector, Schuko connector (CEE7) or NEMA 5/15 connector
- 10A, 250V a.c.



**Specifications**

|                 |                                                            |
|-----------------|------------------------------------------------------------|
| Mouldings:      | Thermoplastic                                              |
| Housing:        | ABS, UL94V-0                                               |
| Connectors:     | BS1363, CEE7, NEMA 5/15                                    |
| Contacts:       | Outlets: Brass, Tin Plated<br>Inlets: Brass, Nickel Plated |
| Voltage Rating: | 250V a.c. 50/60Hz                                          |
| Current Rating: | 10A                                                        |
| Proof Voltage:  | 2kV                                                        |
| Temp. Range:    | -5°C to +60°C                                              |
| Approvals       | cULus Listed (PXD200)                                      |
| <b>RoHS</b>     | Compliant                                                  |

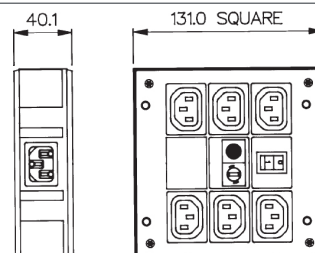
| Part No. | Inlet                      | Outlet |
|----------|----------------------------|--------|
| PXD200   | 1                          | 4      |
| PXD201   | 2m cable with BS 1363 plug | 4      |
| PXD201/1 | 2m cable with Schuko plug  | 4      |
| PXD201/2 | 2m cable with NEMA 5/15    | 4      |

#### Compact Distribution Unit



PXD701/061/10/1

- Six Shuttered Outlets
- 5 x 20mm Fuseholder
- Filtered or Non Filtered
- Switch, Fuse, Neon Indicator
- With IEC Inlet
- 10A, 250V a.c.

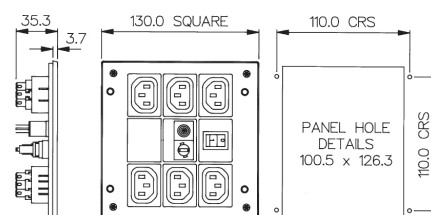


#### IEC Mount Distribution Unit



PXD500/061/10/1

- Six Shuttered Outlets
- 5 x 20mm Fuseholder
- Switch, Fuse, Neon Indicator
- Screw Fit to Panel
- 10A, 250V

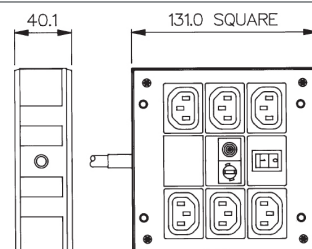


#### Compact Distribution Unit



PXD703/061/10/1  
 PXD706/061/10/1

- Six Shuttered Outlets
- 5 x 20mm Fuseholder
- Filtered or Non Filtered
- Switch, Fuse, Neon Indicator
- 2 Metre Cable with BS1363 or CEE7 Plug
- 10A, 250V



| Specifications  |                                                            | Part No.        | Inlet                             | Outlet      | EMI Filter | Switch | Fuse | Neon Indicator |
|-----------------|------------------------------------------------------------|-----------------|-----------------------------------|-------------|------------|--------|------|----------------|
| Mouldings:      | Thermoplastic                                              | Panel Style:    |                                   |             |            |        |      |                |
| Housing:        | ABS                                                        | PXD500/061/10/1 |                                   | 6 Shuttered |            | 1      | 1    | 1              |
| Connectors:     | Nylon                                                      | Box Style:      |                                   |             |            |        |      |                |
| Contacts:       | Outlets: Brass, Tin Plated<br>Inlets: Brass, Nickel Plated | PXD701/061/10/1 | 1                                 | 6 Shuttered |            | 1      | 1    | 1              |
| Voltage Rating: | 250V a.c. 50/60Hz                                          | PXD701/561/10/1 | 1                                 | 6 Shuttered | ●          | 1      | 1    | 1              |
| Current Rating: | 10A                                                        | PXD703/061/10/1 | 2m cable with BS 1363 plug        | 6 Shuttered |            | 1      | 1    | 1              |
| Proof Voltage:  | 2kV                                                        | PXD703/561/10/1 | 2m cable with BS 1363 plug        | 6 Shuttered | ●          | 1      | 1    | 1              |
| Temp. Range:    | -5°C to +60°C                                              | PXD706/061/10/1 | 2m cable with CEE7 Sheet VII plug | 6 Shuttered |            | 1      | 1    | 1              |
| RoHS            | Compliant                                                  |                 |                                   |             |            |        |      |                |

#### Filter

|                     |                                           |
|---------------------|-------------------------------------------|
| Max. Earth Leakage: |                                           |
| Current:            | <0.35mA (at 250V, 50Hz)                   |
| Capacitor           | 2 x 2.2nF (Y), 1 x 15nF (X)               |
| Inductance:         | 2 x 0.35mH                                |
| Fuse:               | 5 x 20mm, 10A (ceramic HRC type, IEC 127) |



With over 26,000 combinations Bulgin's mains power entry modules offer a very adaptable and flexible solution to panel design. Power entry modules allow combinations of mains inlets and outlets, filtered inlets, switches, fuseholders, voltage selectors and indicators mounted in either horizontal or vertical format bezels ready for quick snap-fit assembly. The compact design occupies the minimum of panel area and a single rectangular mounting hole, offering easy installation for this mains power entry module.

Our range offers a flange fixing alternative for designers who prefer the security of screw fixing. All types and variations are available through Bulgin's extensive distribution network.



## Components used in Power Entry Modules.

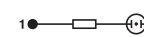
**Note: Components are Approved Individually (where applicable). Please see individual component pages for full specifications.**

### IEC Connectors Fuseholders and Voltage Selectors

| Type   | Description                                            | Rating                                          | Approvals                                                                                                                                                                                                                                                                                                                                                                                                                           |
|--------|--------------------------------------------------------|-------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DX0928 | Neon Indicator                                         | 110V or 250V a.c./d.c. working                  |                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| FX0359 | 5 x 20mm Fuseholder                                    | Max. rating 10A. 250V<br>See Page 192           |                                                                                         |
| PF0011 | C14 Power Inlet with Integral 5 x 20mm Fuseholder      | Max. rating 10A. 250V a.c.<br>See Page 136      |      |
| PF0033 | C14 Power Inlet with Integral twin 5 x 20mm Fuseholder | Max. rating 10A. 250V a.c.<br>See Page 137      |                                                                                         |
| PX0575 | C14 Power Inlet, Cold condition                        | Max. rating 10A. 250V a.c.<br>See Page 132      |      |
| PX0595 | C16 Power Inlet, Hot Condition                         | Max. rating 10A. 250V a.c.<br>See Page 138      |                                                                                         |
| PX0695 | Sheet F Power Outlet                                   | Max. rating 10A. 250V a.c.<br>See Page 145      |                                                                                         |
| PX0783 | Sheet F Shuttered Power Outlet                         | Max. rating 10A. 250V a.c.<br>See Page 146      |                                                                                 |
| PX0598 | C20 Power Inlet                                        | Max. rating 16A, 250V a.c.<br>See Page 148      |                                                                                 |
| VS0001 | Voltage Selector marked 120/240V                       | Max. rating 6.3A. 120/240V a.c.<br>See Page 114 |                                                                                                                                                                                                                                                           |

\*Filtered options for 6.3mm tag versions only

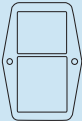
### Switches and Indicators

| No Poles                       | Illumination    | Current Ratings                                                                       | Circuit                                                                               | Approvals                                                                                                                                                                                                                                                         |
|--------------------------------|-----------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Single Pole                    | Non-illuminated | Max. rating 16A Resistive, 4A Inductive, 250Vac.                                      |  |    |
|                                | High Inrush     | Max. rating 16A Resistive, 4A Inductive, 250Vac.<br>Inrush current, 150A to IEC65.    |  |    |
|                                | Illuminated     | Max. rating 16A Resistive, 4A Inductive, 250Vac.                                      |  |    |
| Double Pole                    | Non-illuminated | Max. rating 16A Resistive, 4A Inductive, 250Vac.                                      |  |    |
|                                | High Inrush     | Max. rating 16A Resistive, 4A Inductive, 250Vac.<br>Inrush current, 150A to IEC65.    |  |    |
|                                | Illuminated     | Max. rating 16A Resistive, 4A Inductive, 250Vac.<br>250Vac Neon.                      |  |    |
| For Mini Bezel:<br>Single Pole | Non-illuminated | Max. rating 10A Resistive, 4A Inductive, 250Vac.                                      |  |    |
|                                | Illuminated     | Max. rating 10A Resistive, 4A Inductive, 250Vac.<br>250Vac Neon.                      |  |    |
| Double Pole                    | Non-illuminated | Max. rating 10A Resistive, 4A Inductive, 250Vac.                                      |  |    |
|                                | High Inrush     | Max. rating 10A Resistive, 4A Inductive, 250Vac.<br>Inrush current, 85A to EN61058-1. |  |    |
|                                | Illuminated     | Max. rating 10A Resistive, 4A Inductive, 250Vac.<br>250Vac Neon.                      |  |    |
| Indicator                      |                 | 250Vac neon lamp connected internally to terminals.                                   |  |    |

**RoHS** Power Entry Module range and all components are compliant



Overview of Power Entry Modules

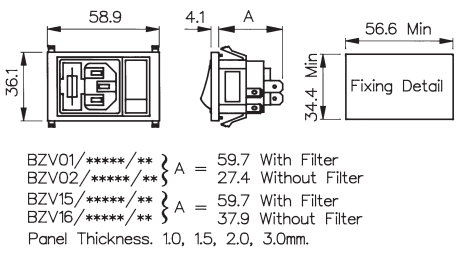
| Style                                                                                                              |        |                                                                                |                                                                                         |                                     |                                     |                                     |                                                                                 |
|--------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|---------------------------------------------------------------------------------|
|                                                                                                                    | C14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Inlets<br>C14 Fused                                                            | C16                                                                                     | C20                                 | Outlets<br>Sheet F                  | Inlet/ Outet Combinations<br>C14    | C14 Fused                                                                       |
| Snap to Panel<br>Vertical<br>     | With Single Pole switch<br>Page 163<br><br>With other components<br>Pages 164, 165, 166                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | With Single Pole switch<br>Page 161<br><br>With Double Pole Switch<br>Page 162 | With Single Pole switch<br>Page 163<br><br>With other components<br>Pages 164, 165, 166 | With Single Pole switch<br>Page 167 | With Single Pole switch<br>Page 169 | With other components<br>Page 168   |                                                                                 |
| Snap to Panel<br>Horizontal<br> | Mini Bezel<br>With Single Pole Switch<br>Page 175<br><br>Mini Bezel<br>With Double Pole Switch<br>Page 175                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | With Single Pole switch<br>Page 170<br><br>With Double Pole Switch<br>Page 171 |                                                                                         |                                     |                                     | With Single Pole switch<br>Page 177 | With Double Pole switch<br>Page 173<br><br>No additional components<br>Page 174 |
| Flange Mount -<br>Vertical<br>  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | With Single Pole switch<br>Page 176<br><br>With Double Pole switch<br>Page 177 |                                                                                         |                                     |                                     |                                     |                                                                                 |

Vertical Module Arrangement



BZV01/Z0000/01

- Fused Inlet with 2.8mm or 6.3mm tabs
- Single Pole Switch Variations
- Filtered Inlet Option
- Options of I/O marked switches



How to order -

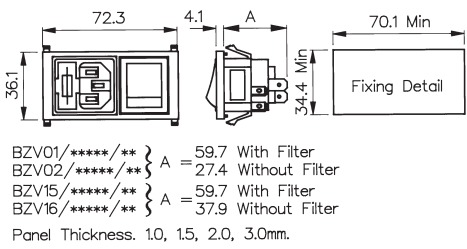
| BZV XX                                                                                                                                                                                                                                                      | / | XXXXX                                                                                                                                                                                                                                         | / | XX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Type of Inlet / Outlet</b><br><br>Single Fused C14 Power Inlet (cold condition),<br>6.3 or 2.8mm tabs:<br>01 = PF0011/63<br>02 = PF0011/28<br><br>Twin Fused C14 Power Inlet (cold condition),<br>6.3 or 2.8mm tabs:<br>15 = PF0033/63<br>16 = PF0033/28 |   | <b>Filtered or Non Filtered Inlet</b><br><br>Z0000 = Non Filtered<br>Axxxx = Standard<br><br><a href="#">For Filtered inlet use 6th to 9th characters from filter ordering code see pages 179 -180</a><br><a href="#">E.g. BZV01/A0620/01</a> |   | <b>Filtered or Non Filtered Inlet</b><br><br>Single Pole Switch:<br>01 = S.P. Switch<br><br>Single Pole Neon Switch:<br>02 = S.P. Red Neon Switch<br>08 = S.P. Green Neon Switch<br><br>Neon Indicator:<br>03 = Red Neon Indicator<br><br>Single Pole High Inrush Switch:<br>46 = S.P. High Inrush Switch<br><br>Single Pole Switch Marked I/O:<br>69 = S.P. Switch (I/O)<br><br>Single Pole Neon Switch Marked (I/O):<br>71 = S.P. Red Neon Switch (I/O)<br>74 = S.P. Green Neon Switch (I/O)<br><br>Single Pole High Inrush Switch Marked (I/O):<br>98 = S.P. High Inrush Switch (I/O) |

Vertical Module Arrangement



BZV01/Z0000/10

- Fused Inlet with 2.8mm or 6.3mm tabs
- Double Pole Switch or
- Indicator Variations
- Filtered Inlet Option
- Options of I/O marked switches



How to order -

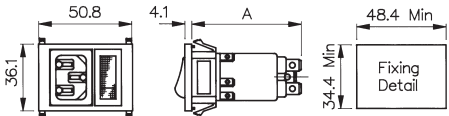
| BZV XX / XXXXX / XX                                                                                                                                                                                                         |                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Type of Inlet / Outlet                                                                                                                                                                                                      | Filtered or Non Filtered Inlet                                                                                                                                              | Combination of Other Components                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <p>Single Fused C14 Power Inlet (cold condition), 6.3 or 2.8mm tabs:<br/>01 = PF0011/63<br/>02 = PF0011/28</p> <p>Twin Fused C14 Power Inlet (cold condition), 6.3 or 2.8mm tabs:<br/>15 = PF0033/63<br/>16 = PF0033/28</p> | <p>Z0000 = Non Filtered</p> <p>Axxxx = Standard</p> <p>For Filtered inlet use 6th to 9th characters from filter ordering code see pages 179-180<br/>E.g. BZV01/A0620/10</p> | <p>Neon Indicator:<br/>D3 = Red Neon Indicator</p> <p>Double Pole Switch:<br/>10 = D.P. Switch</p> <p>Double Pole Neon Switch:<br/>11 = D.P. Red Neon Switch<br/>12 = D.P. Green Neon Switch</p> <p>Double Pole High Inrush Switch:<br/>13 = D.P. High Inrush Switch</p> <p>Double Pole Switch Marked I/O:<br/>70 = D.P. Switch (I/O)</p> <p>Double Pole Neon Switch Marked (I/O):<br/>76 = D.P. Red Neon Switch (I/O)<br/>77 = D.P. Green Neon Switch (I/O)</p> <p>Double Pole High Inrush Switch Marked (I/O):<br/>78 = D.P. High Inrush Switch (I/O)<br/>B1 = D.P. High Inrush Green Neon Switch (I/O)</p> |

Vertical Module Arrangement



BZV03/Z0000/02

- Inlet with 2.8mm or 6.3mm tags
- Single Pole Switch or Neon Indicator Variations
- Filtered Inlet Option
- Options of I/O marked switches
- Non Fused



BZV03, BZV04/\*\*\*\*/\*\* A = 62.5 With Filter  
28.1 Without Filter

BZV05, BZV06/\*\*\*\*/\*\* A = 28.1

Panel Thickness. 1.0, 1.5, 2.0, 3.0mm.

How to order -

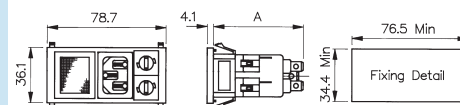
| BZV XX / XXXXX / XX                                                                                                                                                                                                                                                        |                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Type of Inlet / Outlet                                                                                                                                                                                                                                                     | Filtered or Non Filtered Inlet                                                                                                                                         | Combination of Other Components                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <p>C14 Power Inlet (cold condition), 6.3 or 2.8mm tabs:<br/>03 = PX0575/63<br/>04 = PX0575/28</p> <p>C16 Power Inlet (hot condition), 6.3 or 2.8mm tabs:<br/>05 = PX0595/63<br/>06 = PX0595/28</p> <p>Please note type 05 and 06 are not available in filtered version</p> | <p>Z0000 = Non Filtered</p> <p>Axxxx = Standard</p> <p>For Filtered inlet use 6th to 9th characters from filter ordering code see page 178<br/>E.g. BZV03/A0120/02</p> | <p>Single Pole Switch:<br/>01 = S.P. Switch</p> <p>Single Pole Neon Switch:<br/>02 = S.P. Red Neon Switch<br/>08 = S.P. Green Neon Switch</p> <p>Neon Indicator:<br/>03 = Red Neon Indicator</p> <p>Single Pole High Inrush Switch:<br/>46 = S.P. High Inrush Switch</p> <p>Single Pole Switch Marked I/O:<br/>69 = S.P. Switch (I/O)</p> <p>Single Pole Neon Switch Marked (I/O):<br/>71 = S.P. Red Neon Switch (I/O)<br/>74 = S.P. Green Neon Switch (I/O)</p> <p>Single Pole High Inrush Switch Marked (I/O):<br/>98 = S.P. High Inrush Switch (I/O)</p> |

## Vertical Module Arrangement



BZV03/Z0000/07

- Inlet with 2.8mm or 6.3mm tags
- Double Pole Switch/  
Fuseholder/Indicator/  
Voltage Selectors/  
Blanking Plate
- Filtered Inlet Option
- Options of I/O marked switches



Panel Thickness: 1.0, 1.5, 2.0, 3.0mm.

 BZV03, BZV04/\*\*\*\*/\*\* A = 62.5 With Filter  
 39.0 Without Filter  
 BZV05, BZV06/\*\*\*\*/\*\* A = 39.0

## How to order -

**BZV XX****XXXXX****XX**

## Type of Inlet / Outlet

 C14 Power Inlet  
 (cold condition),  
 6.3 or 2.8mm tabs:

 03 = PX0575/63  
 04 = PX0575/28

 C16 Power Inlet (hot  
 condition), 6.3 or  
 2.8mm tabs:

 05 = PX0595/63  
 06 = PX0595/28

 Please note type 05  
 and 06 are not  
 available in  
 filtered version

## Filtered or Non Filtered Inlet

Z0000 = Non Filtered

Axxxx = Standard

 For Filtered inlet use 6th  
 to 9th characters from filter  
 ordering code see page 178  
 E.g. BZV03/A0120/07

## Combination of Other Components

 Twin Fuseholder and Double Pole  
 Switch:

05 = 2 x FX0359 + D.P. Switch

 Twin Fuseholder and Double Pole Neon  
 Switch:

06 = 2 x FX0359 + D.P. Red Neon

09 = 2 x FX0359 + D.P. Green Neon

19 = 2 x FX0359 + D.P. Red Neon

Switch 125V

 Twin Fuseholder and Neon Indicator:  
 07 = 2 x FX0359 + Red Neon

Indicator

 Voltage Selector, Fuseholder and Double  
 Pole Switch:

15 = 1 x VS0001 + 1 x FX0359 +

Double Pole switch

 Voltage Selector, Fuseholder and Double  
 Pole Neon Switch:

16 = 1 x VS0001 + 1 x FX0359 + D.P.

Red Neon Switch

18 = 1 x VS0001 + 1 x FX0359 + D.P.

Green Neon Switch

 Voltage Selector, Fuseholder and Neon  
 Indicator:

17 = 1 x VS0001 + 1 x FX0359 + Red

Neon Indicator

 Twin Fuseholder and Double Pole High  
 Inrush Switch:

20 = 2 x FX0359 + D.P. High Inrush

Switch

 Twin Fuseholder and Double Pole High  
 Inrush Neon Switch:

21 = 2 x FX0359 + 1 x D.P. High

Inrush Green Neon Switch

22 = 2 x FX0359 + 1 x D.P. High

Inrush Red Neon Switch

 Voltage Selector, Neon Indicator and  
 Double Pole Switch

25 = 1 x VS0001 + 1 x

DX0928/110V/Red + D.P. Switch

26 = 1 x VS0001 + 1 x

DX0928/110V/Green + D.P. Switch

27 = 1 x VS0001 + 1 x

DX0928/250V/Red + D.P. Switch

28 = 1 x VS0001 + 1 x

DX0928/250V/Green + D.P. Switch

 Voltage Selector, Neon Indicator and  
 Double Pole High Inrush Switch:

29 = 1 x VS0001 + 1 x

DX0928/250V/Red + D.P. High Inrush

Switch

30 = 1 x VS0001 + 1 x

DX0928/250V/Green + D.P. High

Inrush Switch

 Fuseholder, Neon Indicator and Double  
 Pole Switch

31 = 1 x FX0359 + 1 x

DX0928/110V/Red + D.P. Switch

32 = 1 x FX0359 + 1 x

DX0928/110V/Green + D.P. Switch

33 = 1 x FX0359 + 1 x

DX0928/250V/Red + D.P. Switch

34 = 1 x Fx0359 + 1 x

DX0928/250V/Green + D.P. Switch

 Fuseholder, Neon Indicator and Double  
 Pole High Inrush Switch:

35 = 1 x FX0359 + 1 x

DX0928/250V/Red + D.P. High Inrush

Switch

36 = 1 x FX0359 + 1 x

DX0928/250V/Green + D.P. High

Inrush Switch

 Fuseholder, Blanking Plate and Double  
 Pole High Inrush Neon Switch:

47 = 1 x FX0359 + 1 x Blanking Plate

(Right) + D.P. High Inrush Green Neon

Switch

 Fuseholder, Blanking Plate and Double  
 Pole Switch:

48 = 1 x FX0359 + 1 x Blanking Plate

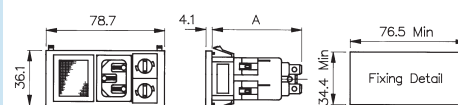
(Right) + D.P. Switch

## Vertical Module Arrangement



BZV03/Z0000/07

- Inlet with 2.8mm or 6.3mm tags
- Double Pole Switch/
- Fuseholder/Indicator/
- Voltage Selectors/
- Blanking Plate
- Filtered Inlet Option
- Options of I/O marked switches



Panel Thickness: 1.0, 1.5, 2.0, 3.0mm.

 BZV03, BZV04/\*\*\*\*/\*\* A = 62.5 With Filter  
 39.0 Without Filter  
 BZV05, BZV06/\*\*\*\*/\*\* A = 39.0

## How to order -

**BZV XX****XXXXX****XX**

## Type of Inlet / Outlet

C14 Power Inlet (cold condition), 6.3 or 2.8mm tabs:

03 = PX0575/63  
 04 = PX0575/28

C16 Power Inlet (hot condition), 6.3 or 2.8mm tabs:

05 = PX0595/63  
 06 = PX0595/28

Please note type 05 and 06 are not available in filtered version

## Filtered or Non Filtered Inlet

Z0000 = Non Filtered

Axxxx = Standard

For Filtered inlet use 6th to 9th characters from filter ordering code see page 178  
 E.g. BZV03/A0120/07

## Combination of Other Components

Twin Fuseholder and Double Pole Switch Marked (I/O):  
 72 = 2 x FX0359 + D.P. Switch (I/O)

Twin Fuseholder and Double Pole Neon Switch Marked (I/O):  
 73 = 2 x FX0359 + D.P. Red Neon Switch (I/O)  
 75 = 2 x FX0359 + D.P. Green Neon Switch (I/O)  
 82 = 2 x FX0359 + D.P. Red Neon Switch 125V (I/O)

Voltage Selector, Fuseholder and Double Pole Switch Marked (I/O):  
 79 = 1 x VS0001 + 1 x FX0359 + Double Pole switch (I/O)

Voltage Selector, Fuseholder and Double Pole Neon Switch Marked (I/O):  
 80 = 1 x VS0001 + 1 x FX0359 + D.P. Red Neon Switch (I/O)  
 81 = 1 x VS0001 + 1 x FX0359 + D.P. Green Neon Switch (I/O)

Twin Fuseholder and Double Pole High Inrush Switch Marked (I/O):  
 83 = 2 x FX0359 + D.P. High Inrush Switch (I/O)

Twin Fuseholder and Double Pole High Inrush Neon Switch Marked (I/O):  
 84 = 2 x FX0359 + 1 x D.P. High Inrush Green Neon Switch (I/O)  
 85 = 2 x FX0359 + 1 x D.P. High Inrush Red Neon Switch (I/O)

Voltage Selector, Neon Indicator and Double Pole Switch Marked (I/O):  
 86 = 1 x VS0001 + 1 x DX0928/110V/Red + D.P. Switch (I/O)  
 87 = 1 x VS0001 + 1 x DX0928/110V/Green + D.P. Switch (I/O)  
 88 = 1 x VS0001 + 1 x DX0928/250V/Red + D.P. Switch (I/O)  
 89 = 1 x VS0001 + 1 x DX0928/250V/Green + D.P. Switch (I/O)

Voltage Selector, Neon Indicator and Double Pole High Inrush Switch Marked (I/O):  
 90 = 1 x VS0001 + 1 x DX0928/250V/Red + D.P. High Inrush Switch (I/O)  
 91 = 1 x VS0001 + 1 x DX0928/250V/Green + D.P. High Inrush Switch (I/O)

Fuseholder, Neon Indicator and Double Pole Switch Marked (I/O):  
 92 = 1 x FX0359 + 1 x DX0928/110V/Red + D.P. Switch (I/O)  
 93 = 1 x FX0359 + 1 x DX0928/110V/Green + D.P. Switch (I/O)  
 94 = 1 x FX0359 + 1 x DX0928/250V/Red + D.P. Switch (I/O)  
 95 = 1 x FX0359 + 1 x DX0928/250V/Green + D.P. Switch (I/O)

Fuseholder, Neon Indicator and Double Pole High Inrush Switch Marked (I/O):  
 96 = 1 x FX0359 + 1 x DX0928/250V/Red + D.P. High Inrush Switch (I/O)  
 97 = 1 x FX0359 + 1 x DX0928/250V/Green + D.P. High Inrush Switch (I/O)

Fuseholder, Blanking Plate and Double Pole High Inrush Neon Switch Marked (I/O):  
 99 = 1 x FX0359 + 1 x Blanking Plate (Right) + D.P. High Inrush Green Neon Switch (I/O)

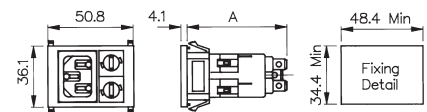
Fuseholder, Blanking Plate and Double Pole Switch Marked (I/O):  
 A0 = 1 x FX0359 + 1 x Blanking Plate (Right) + D.P. Switch (I/O)  
 B2 = 1 x VS0002 + 1 x Blanking Plate  
 B3 = 1 x FX0359 + 1 x Blanking Plate + D.P. High Inrush Switch (I/O)  
 B5 = 1 x VS0001 + 1 x Blanking Plate + D.P. Switch (I/O)

## Vertical Module Arrangement



BZV04/Z0000/04

- Inlet with 2.8mm or 6.3mm tags
- Fuseholder/Voltage Selector/Indicator options/Blanking plate



BZV03, BZV04/\*\*\*\*/\*\* A = 62.5 With Filter,  
 39.0 Without Filter.  
 BZV05, BZV06/\*\*\*\*/\*\* A = 39.0.  
 Panel Thickness: 1.0, 1.5, 2.0, 3.0mm.

## How to order -

**BZV XX****XXXXX****XX****Type of Inlet / Outlet**

C14 Power Inlet (cold condition), 6.3 or 2.8mm tabs:

03 = PX0575/63  
 04 = PX0575/28

C16 Power Inlet (hot condition), 6.3 or 2.8mm tabs:

05 = PX0595/63  
 06 = PX0595/28

Please note type 05 and 06 are not available in filtered version

**Filtered or Non Filtered Inlet**

Z0000 = Non Filtered

Axxxx = Standard

For Filtered inlet use 6th to 9th characters from filter ordering code see page 178  
 E.g. BZV03/A0120/04

**Combination of Other Components**

Twin Fuseholder:  
 04 = 2 x FX0359

Voltage Selector and Fuseholder:  
 14 = 1 x VS0001 + 1 x FX0359

Voltage selector and Neon:  
 37 = 1 x VS0001 + DX0928/110V/Red  
 38 = 1 x VS0001 + DX0928/110V/Green  
 39 = 1 x VS0001 + DX0928/250V/Red  
 40 = 1 x VS0001 + DX0928/250V/Green

Fuseholder and Neon:  
 41 = 1 x FX0359 + DX0928/110V/Red  
 42 = 1 x FX0359 + DX0928/110V/Green  
 43 = 1 x FX0359 + DX0928/250V/Red  
 44 = 1 x FX0359 + DX0928/250V/Green

Fuseholder and Blanking Plate:  
 45 = 1 x FX0359 + Blanking Plate

Voltage Selector and Blanking Plate:  
 B2 = 1 x VS0001 + Blanking Plate

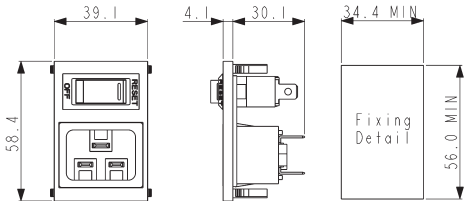


Vertical Module Arrangement



BZV49/Z0000/69

- ⬡ Inlet with 4.8mm or 6.3mm tags
- ⬡ Single Pole Switch marked I/O
- ⬡ Illuminated, red or green, switches
- ⬡ High inrush non-illuminated switch



How to order -

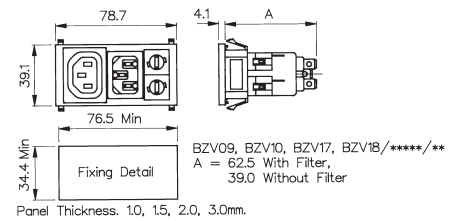
| BZV XX / XXXXX / XX                                                                                  |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Type of Inlet / Outlet                                                                               | Filtered or Non Filtered Inlet | Combination of Other Components                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <p>C20 Power Inlet (cold condition), 4.8 or 6.3mm tabs:</p> <p>49 = PX0598/63<br/>50 = PX0598/48</p> | <p>Z0000 = Non Filtered</p>    | <p>Single Pole Switch:<br/>01 = S.P. Switch</p> <p>Single Pole Switch Marked (I/O):<br/>69 = S.P. Switch (I/O)</p> <p>Single Pole Illuminated Switch:<br/>02 = S.P. Illuminated Red<br/>08 = S.P. Illuminated Green</p> <p>Single Pole Non-illuminated High Inrush Switch Marked I/O:</p> <p>98 = S.P. High Inrush Switch (I/O)<br/>Single Pole Illuminated (Red or Green 250v Neon) Switch Marked I/O:</p> <p>71 = S.P. Switch Illuminated Red (I/O)<br/>74 = S.P. Switch Illuminated Green (I/O)</p> |

## Vertical Module Arrangement



BZV09/Z0000/04

- ⬡ Inlet/Outlet Combination
- ⬡ 2.8mm or 6.3mm tabs
- ⬡ Filtered Inlet and Blanking Plate options
- ⬡ Shuttered or Non-shuttered Outlet
- ⬡ Fused



## How to order -

**BZV XX****XXXXX****XX****Type of Inlet / Outlet**

C14 Power Inlet (cold condition) and Sheet F  
 Non-shuttered Power Outlet, 2.8 or 6.3mm tabs:

09 = PX0575/63 + PX0695/63  
 10 = PX0575/28 + PX0695/28

C14 Power Inlet (cold condition) and Sheet F  
 Shuttered Power Outlet, 2.8 or 6.3mm tabs:

17 = PX0575/63 + PX0783/63  
 18 = PX0575/28 + PX0783/28

**Filtered or Non Filtered Inlet**

Z0000 = Non Filtered

Axxxx = Standard

For Filtered inlet use 6th to 9th characters from  
 filter ordering code see page 178  
 E.g. BZV09/A0120/04

**Combination of Other Components**

Twin Fuseholder:  
 04 = 2 x FX0359

Voltage Selector and Fuseholder:  
 14 = 1 x VS0001 + 1 x FX0359

Voltage selector and Neon:  
 37 = 1 x VS0001 + DX0928/110V/Red  
 38 = 1 x VS0001 + DX0928/110V/Green  
 39 = 1 x VS0001 + DX0928/250V/Red  
 40 = 1 x VS0001 + DX0928/250V/Green

Fuseholder and Neon:  
 41 = 1 x FX0359 + DX0928/110V/Red  
 42 = 1 x FX0359 + DX0928/110V/Green  
 43 = 1 x FX0359 + DX0928/250V/Red  
 44 = 1 x FX0359 + DX0928/250V/Green

Fuseholder and Blanking Plate:  
 45 = 1 x FX0359 + Blanking Plate

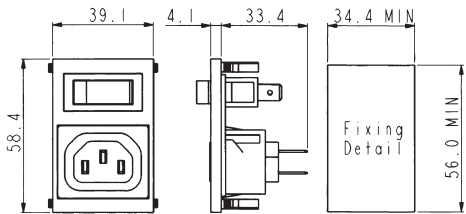
Voltage Selector and Blanking Plate:  
 B2 = 1 x VS0001 + Blanking Plate

Vertical Module Arrangement



BZV45/Z0000/02

- Outlet with 2.8mm or 6.3mm tags
- Shuttered or Non-Shuttered
- Single Pole Switch or Neon Indicator
- I/O Marking Options



How to order -

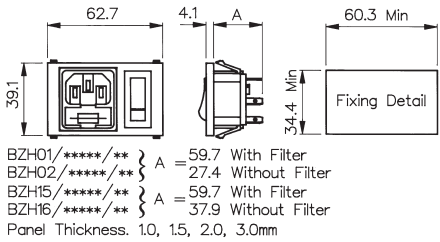
| BZV XX / XXXXX / XX                                                                                                                                                                                  |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Type of Inlet / Outlet                                                                                                                                                                               | Filtered or Non Filtered Inlet | Combination of Other Components                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Sheet F Power Outlet (non shuttered), 6.3 or 2.8mm tabs:<br><br>45 = PX0695/63<br>46 = PX0695/28<br><br>Sheet F Power Outlet (shuttered), 6.3 or 2.8mm tabs:<br><br>47 = PX0783/63<br>48 = PX0783/28 | Z0000 = Non Filtered           | Single Pole Switch:<br>01 = S.P. Switch<br><br>Single Pole Neon Switch:<br>02 = S.P. Red Neon Switch<br>08 = S.P. Green Neon Switch<br><br>Neon Indicator:<br><br>03 = Red Neon Indicator<br><br>Single Pole High Inrush Switch:<br>46 = S.P. High Inrush Switch<br><br>Single Pole Switch Marked I/O:<br>69 = S.P. Switch (I/O)<br><br>Single Pole Neon Switch Marked (I/O):<br>71 = S.P. Red Neon Switch (I/O)<br>74 = S.P. Green Neon Switch (I/O)<br><br>Single Pole High Inrush Switch Marked (I/O):<br>98 = S.P. High Inrush Switch (I/O) |

Horizontal Module Arrangement



BZH01/Z0000/01

- Fused Inlet with 2.8mm or 6.3mm tabs
- Single Pole Switch Variations
- Filtered Inlet Option
- Options of I/O marked switches



How to order -

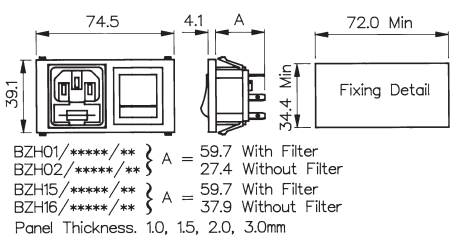
| BZH XX                                                                                                                                                                                                                   | / | XXXXX                                                                                                                                                               | / | XX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Type of Inlet / Outlet</b>                                                                                                                                                                                            |   | <b>Filtered or Non Filtered Inlet</b>                                                                                                                               |   | <b>Combination of Other Components</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Single Fused C14 Power Inlet (cold condition), 2.8 or 6.3mm tabs:<br><br>01 = PF0011/63<br>02 = PF0011/28<br><br>Twin Fused C14 Power Inlet (cold condition), 2.8 or 6.3mm tabs:<br><br>15 = PF0033/63<br>16 = PF0033/28 |   | Z0000 = Non Filtered<br><br>Axxxx = Standard<br><br>For Filtered inlet use 6th to 9th characters from filter ordering code see pages 179-180<br>E.g. BZH01/A0620/01 |   | Single Pole Switch:<br>01 = S.P. Switch<br><br>Single Pole Neon Switch:<br>02 = S.P. Red Neon Switch<br>08 = S.P. Green Neon Switch<br><br>Neon Indicator:<br>03 = Red Neon Indicator<br><br>Single Pole High Inrush Switch:<br>46 = S.P. High Inrush Switch<br><br>Single Pole Switch Marked I/O:<br>69 = S.P. Switch (I/O)<br><br>Single Pole Neon Switch Marked (I/O):<br>71 = S.P. Red Neon Switch (I/O)<br>74 = S.P. Green Neon Switch (I/O)<br><br>Single Pole High Inrush Switch Marked (I/O):<br>98 = S.P. High Inrush Switch (I/O) |

Horizontal Module Arrangement



BZH01/Z0000/10

- Fused Inlet with 2.8mm or 6.3mm tabs
- Double Pole Switch Variations
- Filtered Inlet Option
- Options of I/O marked switches



How to order -

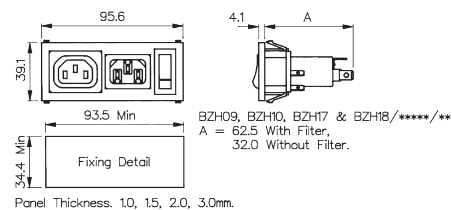
| BZH XX / XXXXX / XX                                                                                                                                                                                                      |                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Type of Inlet / Outlet</b>                                                                                                                                                                                            | <b>Filtered or Non Filtered Inlet</b>                                                                                                                               | <b>Combination of Other Components</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Single Fused C14 Power Inlet (cold condition), 2.8 or 6.3mm tabs:<br><br>01 = PF0011/63<br>02 = PF0011/28<br><br>Twin Fused C14 Power Inlet (cold condition), 2.8 or 6.3mm tabs:<br><br>15 = PF0033/63<br>16 = PF0033/28 | Z0000 = Non Filtered<br><br>Axxxx = Standard<br><br>For Filtered inlet use 6th to 9th characters from filter ordering code see pages 179-180<br>E.g. BZH01/A0620/10 | Neon Indicator:<br>03 = Red Neon Indicator<br><br>Double Pole Switch:<br>10 = D.P. Switch<br><br>Double Pole Neon Switch:<br>11 = D.P. Red Neon Switch<br>12 = D.P. Green Neon Switch<br><br>Double Pole High Inrush Switch:<br>13 = D.P. High Inrush Switch<br><br>Double Pole Switch marked I/O:<br>70 = D.P. Switch (I/O)<br><br>Double Pole Neon Switch Marked (I/O):<br>76 = D.P. Red Neon Switch (I/O)<br>77 = D.P. Green Neon Switch (I/O)<br><br>Double Pole High Inrush Switch Marked (I/O):<br>78 = D.P. High Inrush Switch (I/O)<br>B1 = D.P. High Inrush Green Neon Switch (I/O) |

## Horizontal Module Arrangement



BZH09/Z0000/01

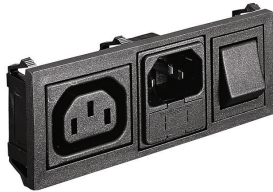
- ⬡ Inlet/Outlet Combination with 2.8mm or 6.3mm tags
- ⬡ Shuttered or Non-Shuttered Outlet
- ⬡ Single Pole Switch Variations
- ⬡ Filtered Inlet Option
- ⬡ Options of I/O marked switches



## How to order -

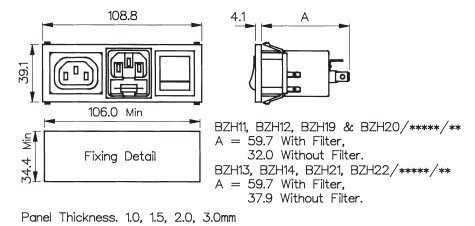
| BZH XX                                                                                                                                                                                                                                                                                                                                                          | XXXXX                                                                                                                                                                                                       | XX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Type of Inlet / Outlet</b><br><br>C14 Power Inlet (cold condition) and Sheet F Non-shuttered Power Outlet, 2.8 or 6.3mm tabs:<br><br>09 = PX0575/63 + PX0695/63<br>10 = PX0575/28 + PX0695/28<br><br>C14 Power Inlet (cold condition) and Sheet F Shuttered Power Outlet, 2.8 or 6.3mm tabs:<br><br>17 = PX0575/63 + PX0783/63<br>18 = PX0575/28 + PX0783/28 | <b>Filtered or Non Filtered Inlet</b><br><br>Z0000 = Non Filtered<br><br>Axxxx = Standard<br><br>For Filtered inlet use 6th to 9th characters from filter ordering code see page 178<br>E.g. BZH09/A0120/01 | <b>Combination of Other Components</b><br><br>Single Pole Switch:<br>01 = S.P. Switch<br><br>Single Pole Neon Switch:<br>02 = S.P. Red Neon Switch<br>08 = S.P. Green Neon Switch<br><br>Neon Indicator:<br>03 = Red Neon Indicator<br><br>Single Pole High Inrush Switch:<br>46 = S.P. High Inrush Switch<br><br>Single Pole Switch Marked I/O:<br>69 = S.P. Switch (I/O)<br><br>Single Pole Neon Switch Marked (I/O):<br>71 = S.P. Red Neon Switch (I/O)<br>74 = S.P. Green Neon Switch (I/O)<br><br>Single Pole High Inrush Switch Marked (I/O):<br>98 = S.P. High Inrush Switch (I/O) |

## Horizontal Module Arrangement



BZH11/Z0000/10

- Inlet/Outlet Combination with 2.8mm or 6.3mm tags
- Single or Twin Fused Inlet
- Shuttered or Non-Shuttered Outlet
- Double Pole Switch Variations
- Filtered Inlet Option
- Options of I/O marked switches



## How to order -

**BZH XX****XXXXX****XX****Type of Inlet / Outlet**

Single Fused C14 Power Inlet (cold condition) and Sheet F Power Outlet, 2.8 or 6.3mm tabs:

11 = PF0011/63 + PX0695/63  
 12 = PF0011/28 + PX0695/28

Twin Fused C14 Power Inlet (cold condition) and Sheet F Power Outlet, 2.8 or 6.3mm tabs:

13 = PF0033/63 + PX0695/63  
 14 = PF0033/28 + PX0695/28

Single Fused C14 Power Inlet (cold condition) and Sheet F Shuttered Power Outlet, 2.8 or 6.3mm tabs:

19 = PF0011/63 + PX0783/63  
 20 = PF0011/28 + PX0783/28

Twin Fused C14 Power Inlet (cold condition) and Sheet F Shuttered Power Outlet, 2.8 or 6.3mm tabs:

21 = PF0033/63 + PX0783/63  
 22 = PF0033/28 + PX0783/28

**Filtered or Non Filtered Inlet**

Z0000 = Non Filtered

Axxxx = Standard

For Filtered inlet use 6th to 9th characters from filter ordering code see pages 179-180  
 E.g. BZH11/A0620/10

**Combination of Other Components**

Neon Indicator:  
 D3 = Red Neon Indicator

Double Pole Switch:  
 10 = D.P. Switch

Double Pole Neon Switch:  
 11 = D.P. Red Neon Switch  
 12 = D.P. Green Neon Switch

Double Pole High Inrush Switch:  
 13 = D.P. High Inrush Switch

Double Pole Switch Marked I/O:  
 70 = D.P. Switch (I/O)

Double Pole Neon Switch Marked (I/O):  
 76 = D.P. Red Neon Switch (I/O)  
 77 = D.P. Green Neon Switch (I/O)

Double Pole High Inrush Switch Marked (I/O):  
 78 = D.P. High Inrush Switch (I/O)  
 B1 = D.P. High Inrush Green Neon Switch (I/O)

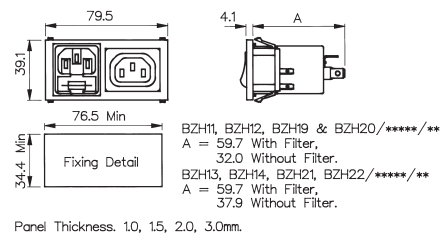


## Horizontal Module Arrangement



BZH11/Z0000/00

- Fused Inlet/Outlet
- Combination with 2.8mm or 6.3mm tabs
- Filtered Inlet Option
- Single or Twin Fused



## How to order -

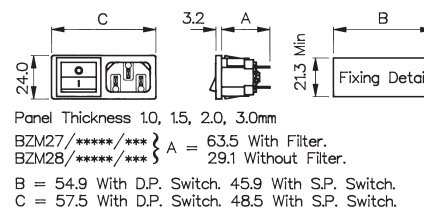
| BZH XX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | / | XXXXX                                                                                                                                                                                                            | / | XX                                                                  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---------------------------------------------------------------------|
| <b>Type of Inlet / Outlet</b><br><br>Single Fused C14 Power Inlet (cold condition) and Sheet F Non-shuttered Power Outlet, 2.8 or 6.3mm tabs:<br><br>11 = PF0011/63 + PX0695/63<br>12 = PF0011/28 + PX0695/28<br><br>Twin Fused C14 Power Inlet (cold condition) and Sheet F Non-shuttered Power Outlet, 2.8 or 6.3mm tabs:<br><br>13 = PF0033/63 + PX0695/63<br>14 = PF0033/28 + PX0695/28<br><br>Single Fused C14 Power Inlet (cold condition) and Sheet F Shuttered Power Outlet, 2.8 or 6.3mm tabs:<br><br>19 = PF0011/63 + PX0783/63<br>20 = PF0011/28 + PX0783/28<br><br>Twin Fused C14 Power Inlet (cold condition) and Sheet F Shuttered Power Outlet, 2.8 or 6.3mm tabs:<br><br>21 = PF0033/63 + PX0783/63<br>22 = PF0033/28 + PX0783/28 |   | <b>Filtered or Non Filtered Inlet</b><br><br>Z0000 = Non Filtered<br><br>Axxxx = Standard<br><br>For Filtered inlet use 6th to 9th characters from filter ordering code see pages 179-180<br>E.g. BZH11/A0620/00 |   | <b>Combination of Other Components</b><br><br>None<br><br>00 = None |

Minimum Combined Bezel Size



BZM27/Z0000/57B

- ⬡ Inlet with 2.8, 4.8 or 6.3mm tags
- ⬡ Horizontal Module Arrangement
- ⬡ Single and Double Pole Switch Variations
- ⬡ Filtered Inlet Option



How to order -

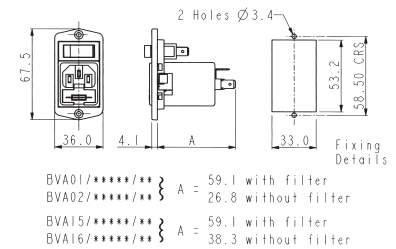
| BZM XX                                                                                                             | / | XXXXX                                                                                                                                                                           | / | XX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | / | X                                                |
|--------------------------------------------------------------------------------------------------------------------|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|--------------------------------------------------|
| Type of Inlet / Outlet                                                                                             |   | Filtered or Non Filtered Inlet                                                                                                                                                  |   | Switch Variation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |   | Panel Thickness                                  |
| C14 Power Inlet (cold condition), 6.3, 4.8 & 2.8mm tabs:<br><br>27 = PX0575/63<br>42 = PX0575/48<br>28 = PX0575/28 |   | Z0000 = Non Filtered<br><br>Axxxx = Standard<br><br><a href="#">For Filtered inlet use 6th to 9th characters from filter ordering code see page 178</a><br>E.g. BZM27/A0120/57B |   | Single Pole Switch, 4.8mm or solder tab, marked I/O:<br>53 = S.P. Switch, 4.8mm tab (I/O)<br>54 = S.P. Switch, solder tab (I/O)<br><br>Single Pole Illuminated Switch, 4.8mm or solder tab:<br>55 = S.P. Switch Illum. Red, 4.8mm tab<br>61 = S.P. Switch Illum. Green, 4.8mm tab<br>56 = S.P. Switch Illum. Red, solder tab<br>62 = S.P. Switch Illum. Green, solder tab<br><br>Double Pole Switch, 4.8mm or solder tab, marked I/O:<br>57 = D.P. Switch, 4.8mm tab (I/O)<br>58 = D.P. Switch, solder tab (I/O)<br><br>Double Pole Illuminated Switch, 4.8mm or solder tab:<br>59 = D.P. Switch Illum. Red, 4.8mm tab<br>63 = D.P. Switch Illum. Green, 4.8mm tab<br>60 = D.P. Switch Illum. Red, solder tab<br>64 = D.P. Switch Illum. Green, solder tab<br><br>Double Pole High Inrush, 4.8mm tabs:<br>65 = D.P. High Inrush Switch, 4.8mm tabs (S.P. format)<br><br>Double Pole High Inrush, 4.8mm tabs, marked I/O:<br>68 = D.P. High Inrush Switch, 4.8mm tabs, I/O (S.P. format)<br><br>Single Pole Illuminated Switch, 4.8mm or solder tab, Marked I/O:<br>A1 = S.P. Switch Illum. Red, 4.8mm tab (I/O)<br>A5 = S.P. Switch Illum. Green, 4.8mm tab (I/O)<br>A2 = S.P. Switch Illum. Red, solder tab (I/O)<br>A6 = S.P. Switch Illum. Green, solder tab (I/O)<br><br>Double Pole Illuminated Switch, 4.8mm or solder tab, Marked I/O:<br>A3 = D.P. Switch Illum. Red, 4.8mm tab<br>A7 = D.P. Switch Illum. Green, 4.8mm tab<br>A4 = D.P. Switch Illum. Red, solder tab<br>A8 = D.P. Switch Illum. Green, solder tab |   | 1.0mm = A<br>1.5mm = B<br>2.0mm = C<br>3.0mm = D |

## Vertical Module Arrangement



BVA01/Z0000/02

- Fused Inlet with 2.8mm or 6.3mm tags
- Screw Fixing to Panel
- Single Pole Switch Variations
- Filtered Inlet Option
- Options of I/O marked switches

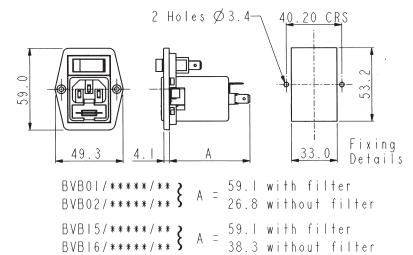


## Vertical Module Arrangement



BVB01/Z0000/01

- Fused Inlet with 2.8mm or 6.3mm tags
- Screw Fixing to Panel
- Single Pole Switch Variations
- Filtered Inlet Option
- Options of I/O marked switches



## How to order -

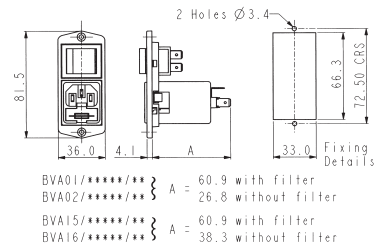
| BV X                              | XX                                                                                                                                                                                                                       | / | XXXXX                                                                                                                                                               | / | XX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Flange Type                       | Type of Inlet / Outlet                                                                                                                                                                                                   |   | Filtered or Non Filtered Inlet                                                                                                                                      |   | Combination of Other Components                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| A = Top fixing<br>B = Side fixing | Single Fused C14 Power Inlet (cold condition), 6.3 or 2.8mm tabs:<br><br>01 = PF0011/63<br>02 = PF0011/28<br><br>Twin Fused C14 Power Inlet (cold condition), 6.3 or 2.8mm tabs:<br><br>15 = PF0033/63<br>16 = PF0033/28 |   | Z0000 = Non Filtered<br><br>Axxxx = Standard<br><br>For Filtered inlet use 6th to 9th characters from filter ordering code see pages 179-180<br>E.g. BVA01/A0620/01 |   | Single Pole Switch:<br>01 = S.P. Switch<br><br>Single Pole Neon Switch:<br>02 = S.P. Red Neon Switch<br>08 = S.P. Green Neon Switch<br><br>Neon Indicator:<br>03 = Red Neon Indicator<br><br>Single Pole High Inrush Switch:<br>46 = S.P. High Inrush Switch<br><br>Single Pole Switch Marked I/O:<br>69 = S.P. Switch (I/O)<br><br>Single Pole Neon Switch Marked (I/O):<br>71 = S.P. Red Neon Switch (I/O)<br>74 = S.P. Green Neon Switch (I/O)<br><br>Single Pole High Inrush Switch Marked (I/O):<br>98 = S.P. High Inrush Switch (I/O) |

## Vertical Module Arrangement



BVA01/Z0000/10

- Fused Inlet with 2.8mm or 6.3mm tags
- Screw Fixing to Panel
- Double Pole Switch Variations
- Filtered Inlet Option
- Options of I/O marked switches

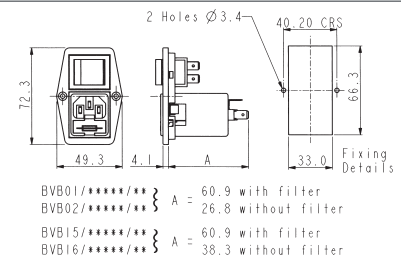


## Vertical Module Arrangement



BVB01/Z0000/11

- Fused Inlet with 2.8mm or 6.3mm tags
- Screw Fixing to Panel
- Double Pole Switch Variations
- Filtered Inlet Option
- Options of I/O marked switches



## How to order -

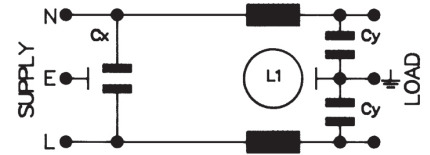
| BV X                      XX                      /                      XXXXX                      /                      XX |                                                                                                                                                                                                                   |                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Flange Type                                                                                                                   | Type of Inlet / Outlet                                                                                                                                                                                            | Filtered or Non Filtered Inlet                                                                                                                                      | Combination of Other Components                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| A = Top fixing<br>B = Side fixing                                                                                             | Fused C14 Power Inlet (cold condition), 6.3 or 2.8mm tabs:<br><br>01 = PF0011/63<br>02 = PF0011/28<br><br>Twin Fused C14 Power Inlet (cold condition), 6.3 or 2.8mm tabs:<br><br>15 = PF0033/63<br>16 = PF0033/28 | Z0000 = Non Filtered<br><br>Axxxx = Standard<br><br>For Filtered inlet use 6th to 9th characters from filter ordering code see pages 179-180<br>E.g. BVA01/A0620/10 | Neon Indicator:<br>D3 = Red Neon Indicator<br><br>Double Pole Switch:<br>10 = D.P. Switch<br><br>Double Pole Neon Switch:<br>11 = D.P. Red Neon Switch<br>12 = D.P. Green Neon Switch<br><br>Double Pole High Inrush Switch:<br>13 = D.P. High Inrush Switch<br><br>Double Pole Switch Marked I/O:<br>70 = D.P. Switch (I/O)<br><br>Double Pole Neon Switch Marked (I/O):<br>76 = D.P. Red Neon Switch (I/O)<br>77 = D.P. Green Neon Switch (I/O)<br><br>Double Pole High Inrush Switch Marked (I/O):<br>78 = D.P. High Inrush Switch (I/O)<br>B1 = D.P. High Inrush Green Neon Switch (I/O) |

#### EMI Filter Options



BVA01/Z0000/10

- For Polysnap modules BZV03, BZV04, BZV09, BZV10, BZV17, BZV18, BZH09, BZH10, BZH17, BZH18, BZM27, BZM28
- PX0575 style IEC inlet
- Using PS01/A style filter
- Standard Attenuation Filter



#### How to order -

| B XXXX /                |  | A            | XX       | X             | X                     | / | XX                      |
|-------------------------|--|--------------|----------|---------------|-----------------------|---|-------------------------|
| Polysnap Part No.       |  | Filter Type  | Rating   | L/C Circuit   | Additional Components |   | Polysnap Part No.       |
| From Polysnap Selection |  | A = Standard | 01 = 1A  | 1 = Version 1 | 0 = None              |   | From Polysnap Selection |
|                         |  |              | 03 = 3A  | 2 = Version 2 |                       |   |                         |
|                         |  |              | 06 = 6A  | 3 = Version 3 |                       |   |                         |
|                         |  |              | 10 = 10A |               |                       |   |                         |

| Rating | Version | L1         | Cx       | Cy        |
|--------|---------|------------|----------|-----------|
| 1 AMP  | 1       | 2 x 2.8mH  | 1 x 15nF | 2 x 2.2nF |
| "      | 2       | 2 x 10mH   | 1 x 15nF | 2 x 2.2nF |
| "      | 3       | 2 x 10mH   | 1 x 47nF | 2 x 2.2nF |
| 3 AMP  | 1       | 2 x 0.75mH | 1 x 15nF | 2 x 2.2nF |
| "      | 2       | 2 x 1.8mH  | 1 x 15nF | 2 x 2.2nF |
| "      | 3       | 2 x 1.8mH  | 1 x 47nF | 2 x 2.2nF |
| 6 AMP  | 1       | 2 x 0.3mH  | 1 x 15nF | 2 x 2.2nF |
| "      | 2       | 2 x 0.7mH  | 1 x 15nF | 2 x 2.2nF |
| "      | 3       | 2 x 0.7mH  | 1 x 47nF | 2 x 2.2nF |
| 10 AMP | 1       | 2 x 0.17mH | 1 x 15nF | 2 x 2.2nF |
| "      | 2       | 2 x 0.35mH | 1 x 15nF | 2 x 2.2nF |
| "      | 3       | 2 x 0.17mH | 1 x 47nF | 2 x 2.2nF |

#### Part No. Example

BZV03/A0120/02

BZV style Polysnap module with PX0575 IEC power inlet, filter rated at 1 amp, L/C circuit version 2 (L1 = 2 x 10mH, Cx = 1 x 15nF, Cy = 2 x 2.2nF) 6.3mm tabs and single pole red neon switch.

#### Filter Specification

|                                          |                                                                         |
|------------------------------------------|-------------------------------------------------------------------------|
| <b>Max. Working Voltage:</b>             | 250V a.c. 50-400Hz                                                      |
| <b>Earth Leakage Current:</b>            | <0.35mA (250V, 50Hz)                                                    |
| <b>Temperature Range:</b>                | -25°C to +85°C                                                          |
| <b>Max. Ambient Temp.: (@ Full Load)</b> | 40°C (derate linearly to 0A @ 85°C)                                     |
| <b>Test Voltage:</b>                     | 2700V d.c. 2 secs. Lines to Earth<br>1100V d.c. 2 secs. Live to Neutral |

#### Approvals:



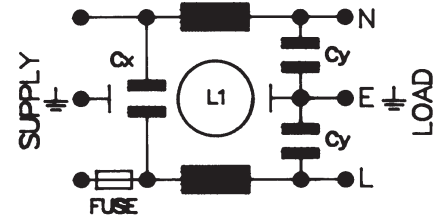
#### Attenuation Curves:

See PS01/A filter, page 183

## EMI Filter Options



- For Polysnap modules BZV01, BZV02, BZH01, BZH02, BZH11, BZH12, BZH19, BZH20, BVA01, BVA02, BVB01, BVB02
- PF0011 style single fuse IEC inlet
- Using PS21/A style filter
- Standard Attenuation Filter



## How to order -

| B XXXX                  | / | A            | XX                            | X                              | X                     | / | XX                      |
|-------------------------|---|--------------|-------------------------------|--------------------------------|-----------------------|---|-------------------------|
| Polysnap Part No.       |   | Filter Type  | Rating                        | L/C Circuit                    | Additional Components |   | Polysnap Part No.       |
| From Polysnap Selection |   | A = Standard | 01 = 1A<br>03 = 3A<br>06 = 6A | 2 = Version 2<br>3 = Version 3 | 0 = None              |   | From Polysnap Selection |

| Rating | Version | L1        | Cx       | Cy        |
|--------|---------|-----------|----------|-----------|
| 1 AMP  | 1       |           |          |           |
| "      | 2       |           |          |           |
| "      | 3       | 2 x 12mH  | 1 x 47nF | 2 x 2.2nF |
| 3 AMP  | 1       |           |          |           |
| "      | 2       | 2 x 1.8mH | 1 x 15nF | 2 x 2.2nF |
| "      | 3       | 2 x 6.5mH | 1 x 47nF | 2 x 2.2nF |
| 6 AMP  | 1       |           |          |           |
| "      | 2       | 2 x 0.7mH | 1 x 15nF | 2 x 2.2nF |
| "      | 3       | 2 x 2mH   | 1 x 47nF | 2 x 2.2nF |
| 10 AMP | 1       |           |          |           |
| "      | 2       |           |          |           |
| "      | 3       |           |          |           |

## Part No. Example

BZV01/A0630/01

BZV style Polysnap module with PF0011 single fused (5 x 20mm) IEC power inlet, filter rated at 6 amp, L/C circuit version 3 (L1 = 2 x 2.0mH, Cx = 1 x 47nF, Cy = 2 x 2.2nF), 6.3mm tabs and single pole switch.

## Filter Specification

|                               |                                                                         |
|-------------------------------|-------------------------------------------------------------------------|
| <b>Max. Working Voltage:</b>  | 250V a.c. 50-400Hz                                                      |
| <b>Earth Leakage Current:</b> | <0.35mA (250V. 50Hz)                                                    |
| <b>Temperature Range:</b>     | -25°C to +85°C                                                          |
| <b>Max. Ambient Temp.:</b>    | 40°C (derate linearly to 0A @ 85°C)                                     |
| <b>(@ Full Load)</b>          |                                                                         |
| <b>Test Voltage:</b>          | 2700V d.c. 2 secs. Lines to Earth<br>1100V d.c. 2 secs. Live to Neutral |

## Approvals:



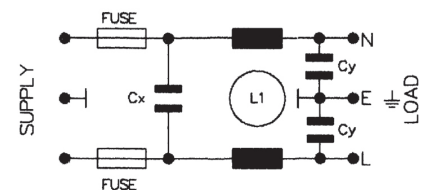
## Attenuation Curves:

See PS21/A filter, page 187

## EMI Filter Option



- For Polysnap modules BZV15, BZV16, BZH13, BZH14, BZH15, BZH16, BZH21, BZH22, BVA15, BVA16, BVB15, BVB16
- PF0033 style twin fuse IEC inlet
- Using PS26/A filter
- Standard Attenuation Filter



## How to order -

| B XXXX /                 | A                  | XX                 | X                  | X                            | / XX                     |
|--------------------------|--------------------|--------------------|--------------------|------------------------------|--------------------------|
| <b>Polysnap Part No.</b> | <b>Filter Type</b> | <b>Rating</b>      | <b>L/C Circuit</b> | <b>Additional Components</b> | <b>Polysnap Part No.</b> |
| From Polysnap Selection  | A = Standard       | 02 = 2A<br>04 = 4A | 2 = Version 2      | 0 = None                     | From Polysnap Selection  |

| Rating | Version | L1        | Cx       | Cy        |
|--------|---------|-----------|----------|-----------|
| 1 AMP  | 1       |           |          |           |
| "      | 2       |           |          |           |
| "      | 3       | 2 x 1.8mH | 1 x 15nF | 2 x 2.2nF |
| 4 AMP  | 1       |           |          |           |
| "      | 2       | 2 x 0.7mH | 1 x 15nF | 2 x 2.2nF |
| "      | 3       |           |          |           |

## Part No. Example

BZH13/A0420/00

BZH style Polysnap module with PF0033 twin fused (5 x 20mm) IEC power inlet, filter rated at 4 amps, L/C circuit version 2 (L1 = 2 x 0.7mH, Cx = 1 x 15nF, Cy = 2 x 2.2nF) 6.3mm tabs and no additional components.

## Filter Specification

|                                          |                                                                         |
|------------------------------------------|-------------------------------------------------------------------------|
| <b>Max. Working Voltage:</b>             | 250V a.c. 50-400Hz                                                      |
| <b>Earth Leakage Current:</b>            | <0.35mA (250V, 50Hz)                                                    |
| <b>Temperature Range:</b>                | -25°C to +85°C                                                          |
| <b>Max. Ambient Temp.: (@ Full Load)</b> | 40°C (derate linearly to 0A @ 85°C)                                     |
| <b>Test Voltage:</b>                     | 2700V d.c. 2 secs. Lines to Earth<br>1100V d.c. 2 secs. Live to Neutral |

## Approvals:



## Attenuation Curves:

See PS26/A filter, page 189





Designed to reduce conducted mains borne EMI, this extensive range provides many solutions to EMI problems. To meet individual design requirements the filters are available with two attenuation options – standard and medical. Current ratings are from 1 to 10 amps with single or twin fused types also available.

The choice of mounting options will suit most applications with flange, snap to panel or base/bulkhead.

Flange and Snap Fit

|             |         |
|-------------|---------|
| PS00 Series | 292-293 |
| PS01 Series | 292-293 |

Base Mounting and Bulkhead

|             |         |
|-------------|---------|
| PS02 Series | 294-295 |
| PS03 Series | 294-295 |

Fused Inlets

|             |         |
|-------------|---------|
| PS20 Series | 296-297 |
| PS21 Series | 296-297 |
| PS25 Series | 298-299 |
| PS26 Series | 298-299 |

# Mains Filters

## IEC Power Inlets Flange and Snap Fit

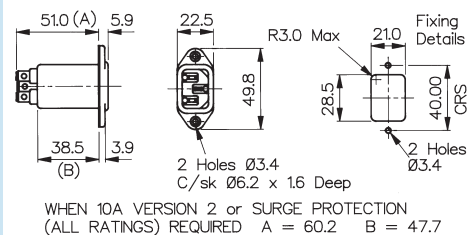


### Panel Mounting



Flange PS00/A

- 1, 3, 6 or 10 Amp Current Rating
- 3 Alternative Circuits
- No additional components
- 6.3mm tabs

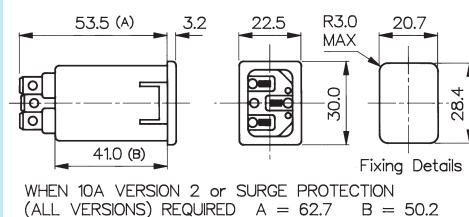


### Snap Fit



Snap Fit PS01/A

- 1, 3, 6 or 10 Amp Current Rating
- 3 Alternative Circuits
- No additional components
- 6.3mm tabs
- 1, 1.5, 2 or 3mm panels



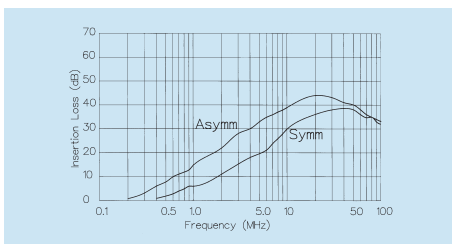
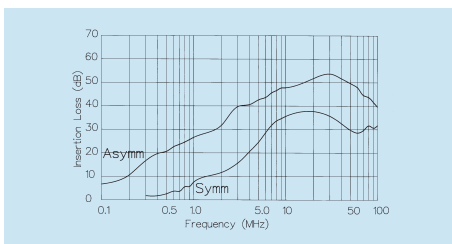
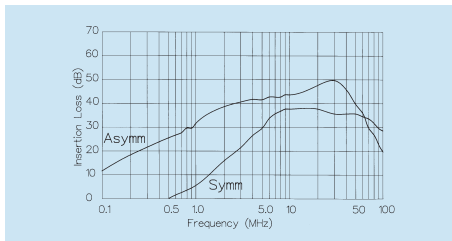
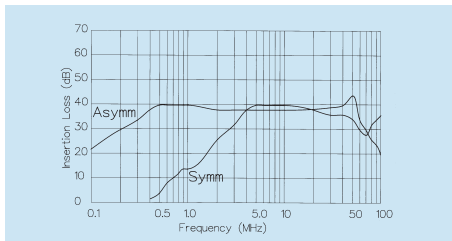
### How to order -

| PS00/A<br>or<br>PS01/A | XX       | X             | 0                        | / | 63                            | XX                 |                          |
|------------------------|----------|---------------|--------------------------|---|-------------------------------|--------------------|--------------------------|
| Series                 | Rating   | L/C Circuit   | Additional<br>Components |   | Tag Type and<br>Configuration | Panel<br>Thickness | Circuit Board<br>Diagram |
| PS00/A                 | 01 = 1A  | 1 = Version 1 | 0 = None                 |   | 63 = 6.3mm tabs               | 00 = Flange        |                          |
| PS01/A                 | 03 = 3A  | 2 = Version 2 |                          |   |                               | 10 = 1.0mm         |                          |
|                        | 06 = 6A  | 3 = Version 3 |                          |   |                               | 15 = 1.5mm         |                          |
|                        |          |               |                          |   |                               | 20 = 2.0mm         |                          |
|                        | 10 = 10A |               |                          |   |                               | 30 = 3.0mm         |                          |

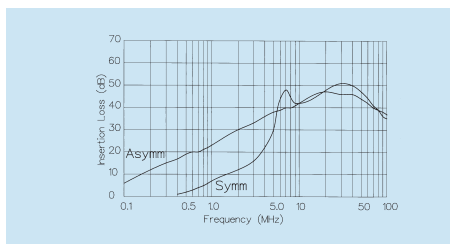
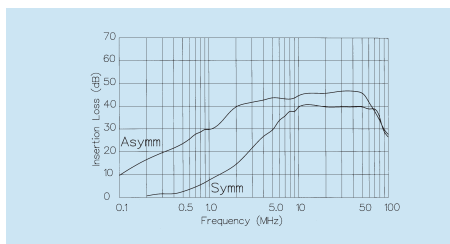
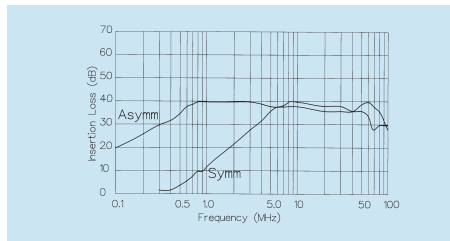
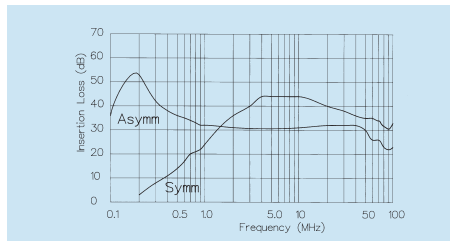
| Specification                    | PS00/Axxxx/xx00                                                         | PS01/Axxxx/xxxx                                                         | Part No. Example                                                                                                                                                     |
|----------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Max. Working Voltage:            | 250V a.c. 50-400Hz                                                      | 250V a.c. 50-400Hz                                                      | <b>PS00/A0120/6300</b>                                                                                                                                               |
| Earth Leakage Current:           | <0.35mA (250V, 50Hz)                                                    | <0.35mA (250V, 50Hz)                                                    | PS00 series, flange fitting, standard filtered IEC power inlet, rated at 1 ampere. L/C circuit version 2, i.e. L1 = 2 x 10mH, Cx = 15nF, Cy = 2 x 2.2nF. 6.3mm tabs. |
| Temperature Range:               | -25°C to +85°C                                                          | -25°C to +85°C                                                          |                                                                                                                                                                      |
| Max. Ambient Temp: (@ Full Load) | 40°C (derate linearly to 0A @ 85°C)                                     | 40°C (derate linearly to 0A @ 85°C)                                     |                                                                                                                                                                      |
| Test Voltage:                    | 2700V d.c. 2 secs. Lines to Earth<br>1100V d.c. 2 secs. Live to Neutral | 2700V d.c. 2 secs. Lines to Earth<br>1100V d.c. 2 secs. Live to Neutral |                                                                                                                                                                      |
| Approvals:                       |                                                                         |                                                                         |                                                                                                                                                                      |
| Mating Connectors:               | PX0587, PX0587/SE, PX0588                                               | PX0587, PX0587/SE, PX0588                                               |                                                                                                                                                                      |
| RoHS                             | Compliant                                                               | Compliant                                                               |                                                                                                                                                                      |

| Rating | Version | L1         | Cx       | Cy        |
|--------|---------|------------|----------|-----------|
| 1 AMP  | 1       | 2 x 2.8mH  | 1 x 15nF | 2 x 2.2nF |
| "      | 2       | 2 x 10mH   | 1 x 15nF | 2 x 2.2nF |
| "      | 3       | 2 x 10mH   | 1 x 47nF | 2 x 2.2nF |
| 3 AMP  | 1       | 2 x 0.75mH | 1 x 15nF | 2 x 2.2nF |
| "      | 2       | 2 x 1.8mH  | 1 x 15nF | 2 x 2.2nF |
| "      | 3       | 2 x 1.8mH  | 1 x 47nF | 2 x 2.2nF |
| 6 AMP  | 1       | 2 x 0.3mH  | 1 x 15nF | 2 x 2.2nF |
| "      | 2       | 2 x 0.7mH  | 1 x 15nF | 2 x 2.2nF |
| "      | 3       | 2 x 0.7mH  | 1 x 47nF | 2 x 2.2nF |
| 10 AMP | 1       | 2 x 0.17mH | 1 x 15nF | 2 x 2.2nF |
| "      | 2       | 2 x 0.35mH | 1 x 15nF | 2 x 2.2nF |
| "      | 3       | 2 x 0.17mH | 1 x 47nF | 2 x 2.2nF |

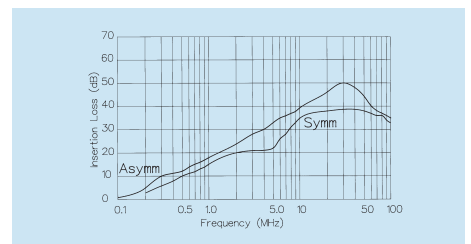
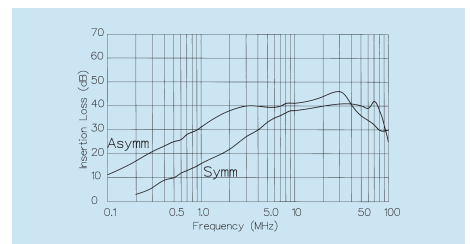
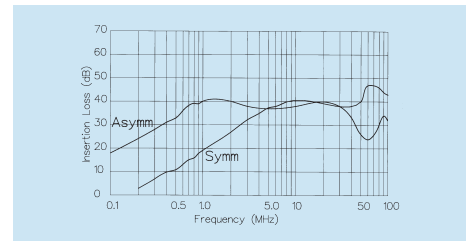
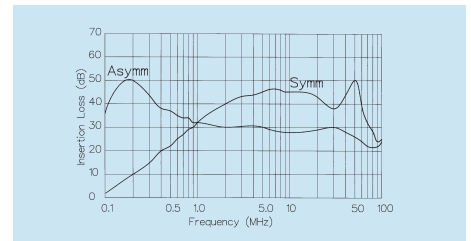
## Version 1



## Version 2



## Version 3

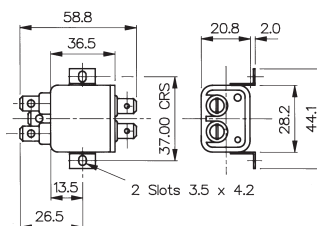


#### Base Mounting



Base Mounting PS02/A

- 1, 3, 6 or 10 Amp Current Rating
- 3 Alternative Circuits
- No additional components
- 6.3mm tabs

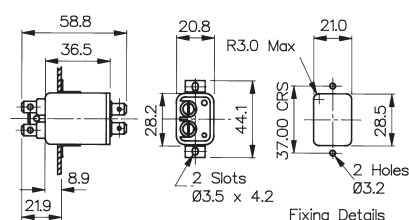


#### Bulkhead Mounting



Bulkhead Mounting PS03/A

- 1, 3, 6 or 10 Amp Current Rating
- 3 Alternative Circuits
- No additional components
- 6.3mm tabs



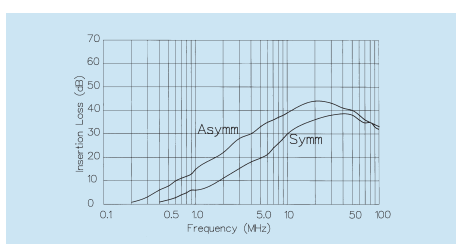
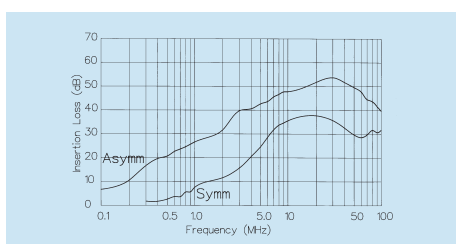
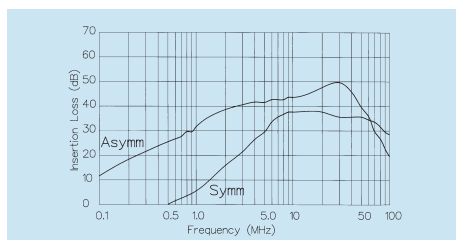
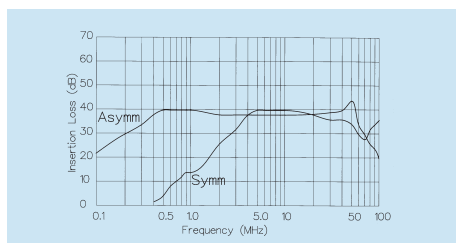
#### How to order -

| PS02/A<br>or<br>PS03/A | XX       | X             | 0                     | /                          | 63                    |
|------------------------|----------|---------------|-----------------------|----------------------------|-----------------------|
| Series                 | Rating   | L/C Circuit   | Additional Components | Tag Type and Configuration | Circuit Board Diagram |
| PS02/A                 | 01 = 1A  | 1 = Version 1 | 0 = None              | 63 = 6.3mm tabs            |                       |
| PS03/A                 | 03 = 3A  | 2 = Version 2 |                       |                            |                       |
|                        | 06 = 6A  | 3 = Version 3 |                       |                            |                       |
|                        | 10 = 10A |               |                       |                            |                       |

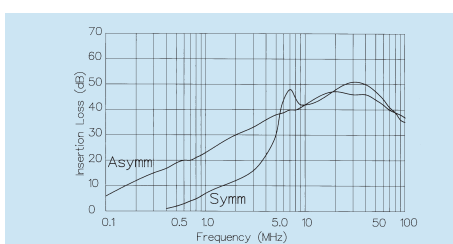
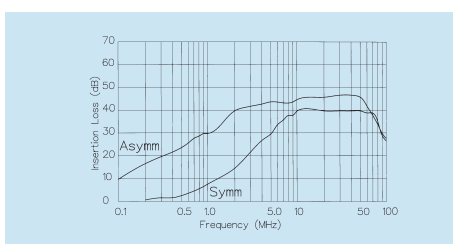
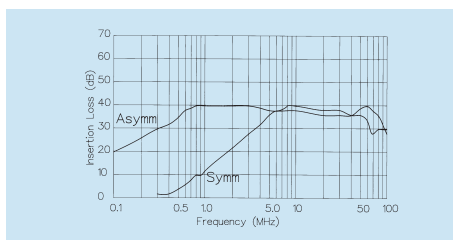
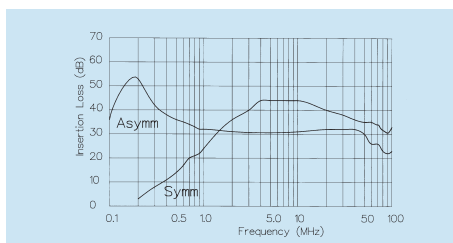
| Specification                    | PS02/Axxxx/xx                                                           | PS03/Axxxx/xx                                                           | Part No. Example                                                                                                                                        |
|----------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| Max. Working Voltage:            | 250V a.c. 50-400Hz                                                      | 250V a.c. 50-400Hz                                                      | PS02/A0120/63                                                                                                                                           |
| Earth Leakage Current:           | <0.35mA (250V, 50Hz)                                                    | <0.35mA (250V, 50Hz)                                                    | PS02 series, standard base mounting filter, rated at 3 amperes. L/C circuit version 1, i.e. L1 = 2 x 0.75mH, Cx = 15nF, Cy = 2 x 2.2nF with 2.8mm tabs. |
| Temperature Range:               | -25°C to +85°C                                                          | -25°C to +85°C                                                          |                                                                                                                                                         |
| Max. Ambient Temp: (@ Full Load) | 40°C (derate linearly to 0A @ 85°C)                                     | 40°C (derate linearly to 0A @ 85°C)                                     |                                                                                                                                                         |
| Test Voltage:                    | 2700V d.c. 2 secs. Lines to Earth<br>1100V d.c. 2 secs. Live to Neutral | 2700V d.c. 2 secs. Lines to Earth<br>1100V d.c. 2 secs. Live to Neutral |                                                                                                                                                         |
| Approvals:                       |                                                                         |                                                                         |                                                                                                                                                         |
| RoHS                             | Compliant                                                               | Compliant                                                               |                                                                                                                                                         |

| Rating | Version | L1         | Cx       | Cy        |
|--------|---------|------------|----------|-----------|
| 1 AMP  | 1       | 2 x 2.8mH  | 1 x 15nF | 2 x 2.2nF |
| "      | 2       | 2 x 10mH   | 1 x 15nF | 2 x 2.2nF |
| "      | 3       | 2 x 10mH   | 1 x 47nF | 2 x 2.2nF |
| 3 AMP  | 1       | 2 x 0.75mH | 1 x 15nF | 2 x 2.2nF |
| "      | 2       | 2 x 1.8mH  | 1 x 15nF | 2 x 2.2nF |
| "      | 3       | 2 x 1.8mH  | 1 x 47nF | 2 x 2.2nF |
| 6 AMP  | 1       | 2 x 0.3mH  | 1 x 15nF | 2 x 2.2nF |
| "      | 2       | 2 x 0.7mH  | 1 x 15nF | 2 x 2.2nF |
| "      | 3       | 2 x 0.7mH  | 1 x 47nF | 2 x 2.2nF |
| 10 AMP | 1       | 2 x 0.17mH | 1 x 15nF | 2 x 2.2nF |
| "      | 2       | 2 x 0.35mH | 1 x 15nF | 2 x 2.2nF |
| "      | 3       | 2 x 0.17mH | 1 x 47nF | 2 x 2.2nF |

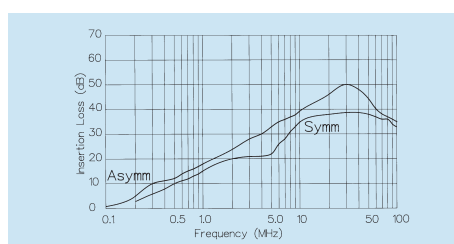
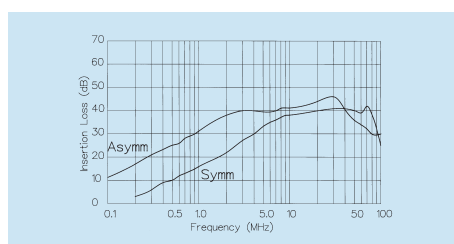
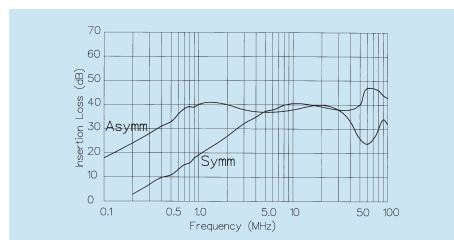
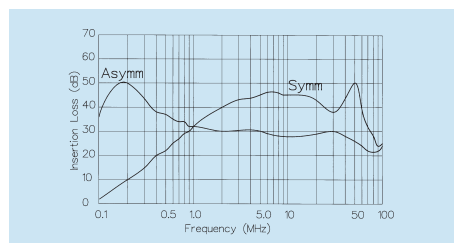
## Version 1



## Version 2



## Version 3

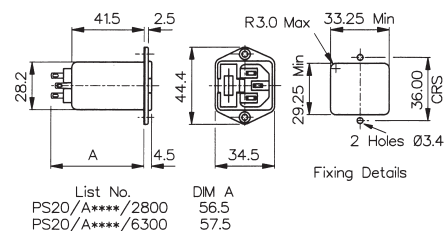


Panel Mounting

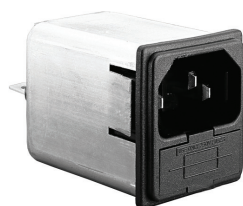


PS20/A

- 1, 3, or 6 Amp Current Rating
- Single Fused
- 2 Alternative Circuits
- 6.3mm tabs

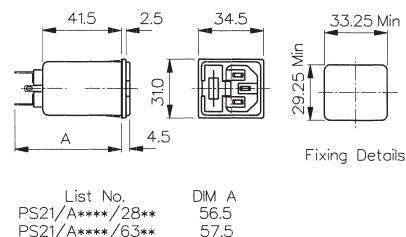


Snap Fit

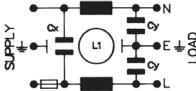


PS21/A

- 1, 3, or 6 Amp Current Rating
- Single Fused
- 2 Alternative Circuits
- 6.3mm tabs
- 1, 1.5, 2 or 3mm panels



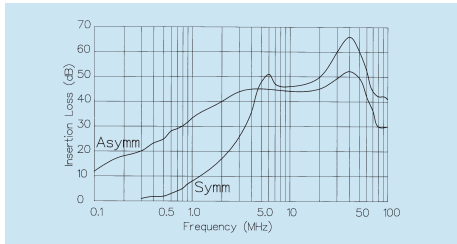
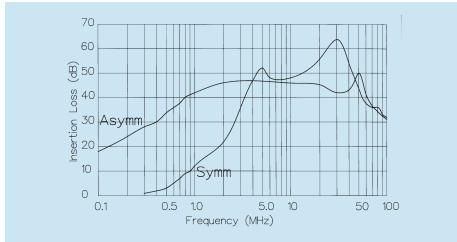
How to order -

| PS02/A or PS03/A |         |               |                       |                            |                 |                                                                                       | XX | X | 0 | / | 63 | / | XX |
|------------------|---------|---------------|-----------------------|----------------------------|-----------------|---------------------------------------------------------------------------------------|----|---|---|---|----|---|----|
| Series           | Rating  | L/C Circuit   | Additional Components | Tag Type and Configuration | Panel Thickness | Circuit Board Diagram                                                                 |    |   |   |   |    |   |    |
| PS00/A           | 01 = 1A | 2 = Version 2 | 0 = None              | 63 = 6.3mm tabs            | 00 = Flange     |  |    |   |   |   |    |   |    |
| PS01/A           | 03 = 3A | 3 = Version 3 |                       |                            | 10 = 1.0mm      |                                                                                       |    |   |   |   |    |   |    |
|                  | 06 = 6A |               |                       |                            | 15 = 1.5mm      |                                                                                       |    |   |   |   |    |   |    |
|                  |         |               |                       |                            | 20 = 2.0mm      |                                                                                       |    |   |   |   |    |   |    |
|                  |         |               |                       |                            | 30 = 3.0mm      |                                                                                       |    |   |   |   |    |   |    |

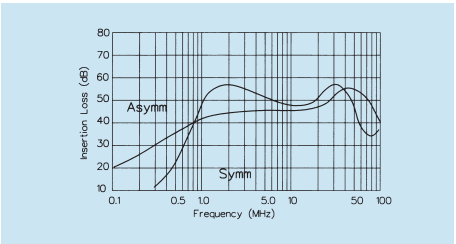
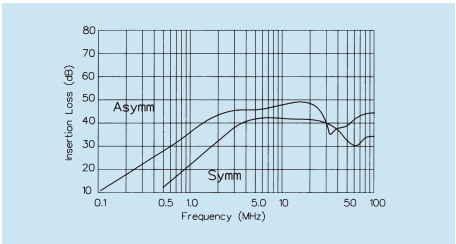
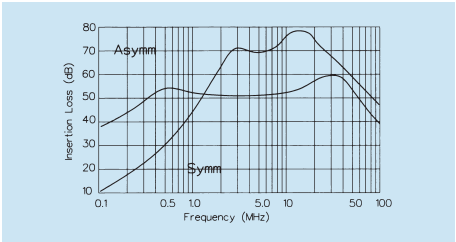
| Specification                    | PS20/Axxx0/xx00                                                         | PS21/Axxx0/xxxx                                                         | Part No. Example                                                                                                                                                                        |
|----------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Max. Working Voltage:            | 250V a.c. 50-400Hz                                                      | 250V a.c. 50-400Hz                                                      | PS20/A0620/63                                                                                                                                                                           |
| Earth Leakage Current:           | <0.35mA (250V, 50Hz)                                                    | <0.35mA (250V, 50Hz)                                                    | PS20 series, flange fitting, standard filtered IEC power inlet, single fused, rated at 6 amperes. L/C circuit version 2, i.e L1 = 2 x 0.7mH, Cx = 1 x 15nF, Cy = 2 x 2.2nF. 6.3mm tabs. |
| Temperature Range:               | -25°C to +85°C                                                          | -25°C to +85°C                                                          |                                                                                                                                                                                         |
| Max. Ambient Temp: (@ Full Load) | 40°C (derate linearly to 0A @ 85°C)                                     | 40°C (derate linearly to 0A @ 85°C)                                     |                                                                                                                                                                                         |
| Test Voltage:                    | 2700V d.c. 2 secs. Lines to Earth<br>1100V d.c. 2 secs. Live to Neutral | 2700V d.c. 2 secs. Lines to Earth<br>1100V d.c. 2 secs. Live to Neutral |                                                                                                                                                                                         |
| Approvals:                       |                                                                         |                                                                         |                                                                                                                                                                                         |
| RoHS                             | Compliant                                                               | Compliant                                                               |                                                                                                                                                                                         |

| Rating | Version | L1        | Cx       | Cy        |
|--------|---------|-----------|----------|-----------|
| 1 AMP  | 1       |           |          |           |
| "      | 2       |           |          |           |
| "      | 3       | 2 x 10mH  | 1 x 47nF | 2 x 2.2nF |
| 3 AMP  | 1       |           |          |           |
| "      | 2       | 2 x 1.8mH | 1 x 15nF | 2 x 2.2nF |
| "      | 3       | 2 x 6.5mH | 1 x 47nF | 2 x 2.2nF |
| 6 AMP  | 1       |           |          |           |
| "      | 2       | 2 x 0.7mH | 1 x 15nF | 2 x 2.2nF |
| "      | 3       | 2 x 2mH   | 1 x 47nF | 2 x 2.2nF |

Version 2

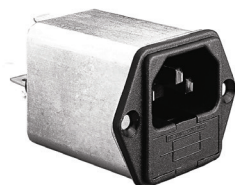


Version 3



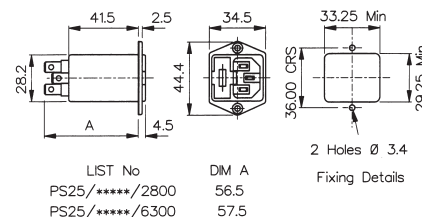


## Base Mounting



PS25/A

- 2 or 4 Amp Current Rating
- Twin Fused
- No additional components
- 6.3mm tabs

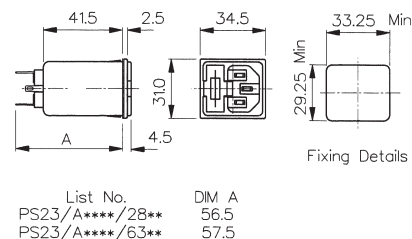


## Snap Fit

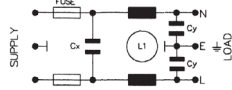


PS26/A

- 2 or 4 Amp Current Rating
- Twin Fused
- No additional components
- 6.3mm tabs
- 1, 1.5, 2 or 3mm panels



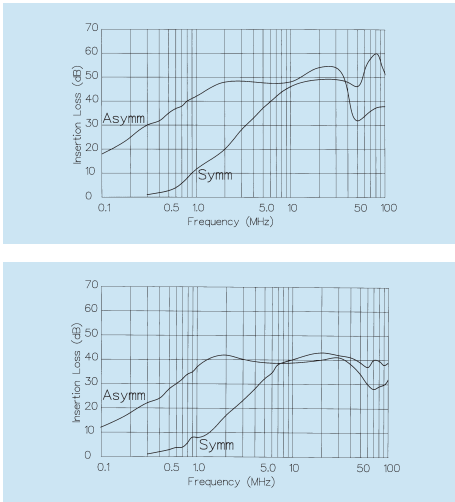
## How to order -

| PS25/A<br>or<br>PS26/A | X       | 2             | 0                     | /                          | 63              | /                                                                                     | XX |
|------------------------|---------|---------------|-----------------------|----------------------------|-----------------|---------------------------------------------------------------------------------------|----|
| Series                 | Rating  | L/C Circuit   | Additional Components | Tag Type and Configuration | Panel Thickness | Circuit Board Diagram                                                                 |    |
| PS25/A                 | 02 = 2A | 2 = Version 2 | 0 = None              | 63 = 6.3mm tabs            | 00 = Flange     |  |    |
| PS26/A                 | 04 = 4A |               |                       |                            | 10 = 1.0mm      |                                                                                       |    |
|                        |         |               |                       |                            | 15 = 1.5mm      |                                                                                       |    |
|                        |         |               |                       |                            | 20 = 2.0mm      |                                                                                       |    |
|                        |         |               |                       |                            | 30 = 3.0mm      |                                                                                       |    |

| Specification                       | PS25/Axx2x/xx00                                                                     | PS26/Axx2x/xxxx                                                                     | Part No. Example                                                                                                                                                                                       |
|-------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Max. Working Voltage:               | 250V a.c. 50-400Hz                                                                  | 250V a.c. 50-400Hz                                                                  | PS20/A0620/63                                                                                                                                                                                          |
| Earth Leakage Current:              | 2.5W per fuse                                                                       | 2.5W per fuse                                                                       | PS20 series, flange fitting,<br>standard filtered IEC power inlet,<br>single fused, rated at 6 amperes.<br>L/C circuit version 2, i.e L1 = 2<br>x 0.7mH, Cx = 1 x 15nF, Cy = 2<br>x 2.2nF. 6.3mm tabs. |
| Temperature Range:                  | <0.35mA (250V, 50Hz)                                                                | <0.35mA (250V, 50Hz)                                                                |                                                                                                                                                                                                        |
| Max. Ambient Temp:<br>(@ Full Load) | 40°C (derate linearly to 0A @ 85°C)                                                 | 40°C (derate linearly to 0A @ 85°C)                                                 |                                                                                                                                                                                                        |
| Test Voltage:                       | 2700V d.c. 2 secs. Lines to Earth<br>1100V d.c. 2 secs. Live to Neutral             | 2700V d.c. 2 secs. Lines to Earth<br>1100V d.c. 2 secs. Live to Neutral             |                                                                                                                                                                                                        |
| Approvals:                          |  |  |                                                                                                                                                                                                        |
| Mating Connectors                   | PX0587, PX0587/SE, PX0588                                                           | PX0587, PX0587/SE, PX0588                                                           |                                                                                                                                                                                                        |
| Accessories                         | P.No. 14340 (see page 151)                                                          | P.No. 14340 (see page 151)                                                          |                                                                                                                                                                                                        |
| RoHS                                | Compliant                                                                           | Compliant                                                                           |                                                                                                                                                                                                        |

| Rating | Version | L1        | Cx       | Cy        |
|--------|---------|-----------|----------|-----------|
| 1 AMP  | 1       |           |          |           |
| "      | 2       | 2 x 1.8mH | 1 x 15nF | 2 x 2.2nF |
| "      | 3       |           |          |           |
| 3 AMP  | 1       |           |          |           |
| "      | 2       | 2 x 0.7mH | 1 x 15nF | 2 x 2.2nF |
| "      | 3       |           |          |           |

Version 2



Bulgin's **extensive range** of fuseholders are **designed** to give the degree of **protection** demanded in today's sophisticated electronic equipment. Carrying world-wide safety approvals from **UL**, **VDE**, **CSA** and **IMQ**, all types are manufactured from high grade flame retardant **nylon** and **polyester** materials.

Designed primarily for 5 x 20mm and 6.3 x 32mm size fuses with protection against shock to categories PC1, PC2 and PC3. There's a choice of styles for in-line, PCB mounting and panel mounting (screw or snap fit) with terminal options for solder, 2.8mm, 4.8mm or 6.3mm tabs or PC spills. Dust and waterproof designs provide a front of panel seal to IP68 in both 5 x 20mm and 6.3 x 32mm size fuses.

Fuse carrier styles include captive drawer, screw cap - with screw driver release, bayonet cap - with screw driver release and screw cap - with finger release.

|                     |         |
|---------------------|---------|
| Panel Mounting      | 302-308 |
| IP68 Panel Mounting | 309     |
| IP66 Panel Mounting | 310     |
| PC Mounting         | 311-312 |
| Base Mounting       | 313     |
| In-line             | 314-315 |



### **Category PC1:**

No integral protection against electric shock. If required, Designers/ Manufacturers must provide additional protection against electric shock on equipment.

### **Category PC2:**

With integral protection against electric shock. Fuseholders shall have live parts inaccessible to IEC 60529 Standard Test Finger, when fully assembled, without fuse carrier or fuse in place and when fuse carrier, with fuse is being inserted or withdrawn.

### **Category PC3:**

With integral protection against electric shock. Fuseholders shall have live parts inaccessible to IEC 60529 1mm dia. rigid test wire when fully assembled, without fuse carrier or fuse in place and when fuse carrier, with fuse, is being inserted or withdrawn.

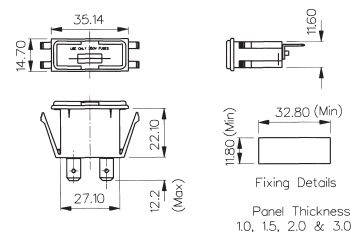


Snap Fit to Panel



FX0430/63

- Protection Category PC3
- Fuse Size 5 x 20mm
- Panel Sizes 1.0, 1.5, 2.0 and 3.0mm
- Captive Drawer
- 10A, 250V (16A, 250V UL)
- 2.8, 4.8 or 6.3 tabs

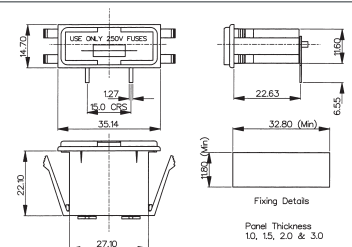


Snap Fit to Panel



FX0430/PC

- Protection Category PC3
- Fuse Size 5 x 20mm
- Panel Sizes 1.0, 1.5, 2.0 and 3.0mm
- Captive Drawer
- 10A, 250V (16A, 250V UL)
- PC spills



| Specifications          | FX0430/Termination                                                                  | FX0430/PC                                                                           |
|-------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Fuse Size:              | 5 x 20mm                                                                            | 5 x 20mm                                                                            |
| Fuse Carrier:           | Captive Drawer                                                                      | Captive Drawer                                                                      |
| Terminations:           | /28 (2.8mm solder), /48 (4.8mm tab), /63 (6.3mm tab)                                | /PC (PC spills)                                                                     |
| Max. Rating:            | 10A, 250V (16A, 250V a.c. UL)                                                       | 10A, 250V (16A, 250V a.c. UL)                                                       |
| Max. Power Dissipation: | 2.5W (@ 23°C)                                                                       | 2.5W (@ 23°C)                                                                       |
| Insulation Resistance:  | >10MΩ @ 500V d.c.                                                                   | >10MΩ @ 500V d.c.                                                                   |
| A.C. Breakdown:         | >2kV                                                                                | >2kV                                                                                |
| Contact Resistance:     | <10mΩ                                                                               | <10mΩ                                                                               |
| Operating Temp:         | -20°C to +85°C<br>(ambient air temp + fuse temp rise)                               | -20°C to +85°C<br>(ambient air temp + fuse temp rise)                               |
| Mouldings:              |                                                                                     |                                                                                     |
| Body/Drawer:            | Nylon UL94V-0 rated                                                                 | Nylon UL94V-0 rated                                                                 |
| Cap:                    |                                                                                     |                                                                                     |
| Nut:                    |                                                                                     |                                                                                     |
| Contacts:               | Contact tags: Brass, Tin Plated<br>Fuse Clips: Phosphor Bronze, Nickel Plated       | Contact tags: Brass, Tin Plated<br>Fuse Clips: Phosphor Bronze, Nickel Plated       |
| Approvals:              |  |  |
| Accessories:            |                                                                                     |                                                                                     |
| Note:                   |                                                                                     |                                                                                     |
| <b>RoHS</b>             | Compliant                                                                           | Compliant                                                                           |

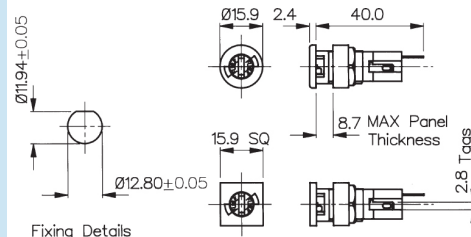
## Panel Mount



FX0357

FX0359

- Protection Category PC2
- Fuse Size 5 x 20mm
- Bayonet Cap/Screwdriver Release
- 10A, 250V (16A, 250V UL)



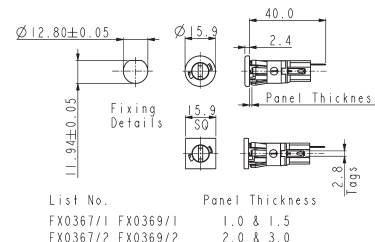
## Snap Fit to Panel



FX0367

FX0369

- Protection Category PC2
- Fuse Size 5 x 20mm
- Panel Sizes 1.0 & 1.5 and 2.0 & 3.0mm
- Bayonet Cap/Screwdriver Release
- 10A, 250V (16A, 250V UL)



| Specifications          | FX0357, FX0359                                                                      | FX0367/Panel, FX0369/Panel                                                          |
|-------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Fuse Size:              | 5 x 20mm                                                                            | 5 x 20mm                                                                            |
| Panel Size:             |                                                                                     | /1 (1.0-1.5mm panel, black sleeve)<br>/2 (2.0-3.0mm panel, grey sleeve)             |
| Fuse Carrier:           | Bayonet cap/Screwdriver release                                                     | Bayonet cap/Screwdriver release                                                     |
| Terminations:           | Solder tags                                                                         | Solder tags                                                                         |
| Max. Rating:            | 10A, 250V (16A, 250V a.c. UL)                                                       | 10A, 250V (16A, 250V a.c. UL)                                                       |
| Max. Power Dissipation: | 2.5W (@ 23°C)                                                                       | 2.5W (@ 23°C)                                                                       |
| Insulation Resistance:  | >10 <sup>2</sup> MΩ @ 500V d.c.                                                     | >10 <sup>2</sup> MΩ @ 500V d.c.                                                     |
| A.C. Breakdown:         | 7kV @ 50Hz                                                                          | 7kV @ 50Hz                                                                          |
| Contact Resistance:     | <10mΩ                                                                               | <10mΩ                                                                               |
| Operating Temp:         | -20°C to +85°C<br>(ambient air temp + fuse temp rise)                               | -20°C to +85°C<br>(ambient air temp + fuse temp rise)                               |
| Mouldings:              |                                                                                     |                                                                                     |
| Body:                   | Polyester UL94V-0 rated                                                             | Polyester UL94V-0 rated                                                             |
| Cap:                    | Nylon UL94V-0 rated                                                                 | Nylon UL94V-0 rated                                                                 |
| Nut:                    | Glass Filled Nylon UL94V-0 rated                                                    |                                                                                     |
| Contacts:               | Brass, Silver Plated                                                                | Brass, Silver Plated                                                                |
| Approvals:              |  |  |
| Accessories:            | P.No. 11327 (See page 206)                                                          | P.No. 11327 (See page 205)                                                          |
| RoHS                    | Compliant                                                                           | Compliant                                                                           |

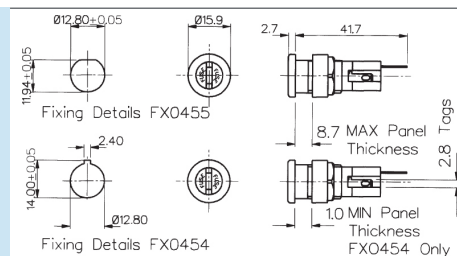
## Panel Mount



FX0454,

FX0455

- Protection Category PC2
- Fuse Size 5 x 20mm
- Screw Cap/Screwdriver Release
- Keyway Panel Cutout (FX0454)
- D Panel Cutout (FX0455)
- 10A, 250V (16A, 250V UL)



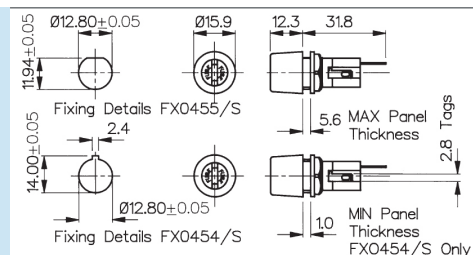
## Panel Mount



FX0454/S,

FX0455/S

- Protection Category PC2
- Fuse Size 5 x 20mm
- Screw Cap/Screwdriver Release
- High Profile Bezel
- Keyway Panel Cutout (FX0454/S)
- D Panel Cutout (FX0455/S)
- 10A, 250V (16A, 250V UL)

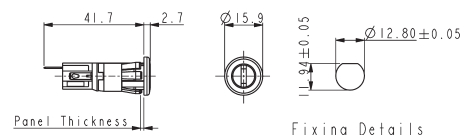


## Snap Fit to Panel



FX0458

- Protection Category PC2
- Fuse Size 5 x 20mm
- Panel Sizes 1.0 & 1.5 and 2.0 & 3.0mm
- Screw Cap/Screwdriver Release
- 10A, 250V (16A, 250V UL)



| List No. | Panel Thickness |
|----------|-----------------|
| FX0458/1 | 1.0 & 1.5       |
| FX0458/2 | 2.0 & 3.0       |

| Specifications          | FX0454, FX0455                                                                      | FX0454/S, FX0455/S                                                                  | FX0458                                                                                |
|-------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Fuse Size:              | 5 x 20mm                                                                            | 5 x 20mm                                                                            | 5 x 20mm                                                                              |
| Panel Size:             |                                                                                     |                                                                                     | /1 (1.0-1.5mm panel, black sleeve)<br>/2 (2.0-3.0mm panel, grey sleeve)               |
| Fuse Carrier:           | Screw cap/Screwdriver release                                                       | Screw cap/Screwdriver release                                                       | Screw cap/Screwdriver release                                                         |
| Terminations:           | Solder tags                                                                         | Solder tags                                                                         | Solder tags                                                                           |
| Max. Rating:            | 10A, 250V (16A, 250V a.c. UL)                                                       | 10A, 250V (16A, 250V a.c. UL)                                                       | 10A, 250V (16A, 250V a.c. UL)                                                         |
| Max. Power Dissipation: | 2.5W (@ 23°C)                                                                       | 2.5W (@ 23°C)                                                                       | 2.5W (@ 23°C)                                                                         |
| Insulation Resistance:  | >10 <sup>9</sup> MΩ @ 500V d.c.                                                     | >10 <sup>9</sup> MΩ @ 500V d.c.                                                     | >10 <sup>9</sup> MΩ @ 500V d.c.                                                       |
| A.C. Breakdown:         | 7kV @ 50Hz                                                                          | 7kV @ 50Hz                                                                          | 7kV @ 50Hz                                                                            |
| Contact Resistance:     | <10mΩ                                                                               | <10mΩ                                                                               | <10mΩ                                                                                 |
| Operating Temp:         | -20°C to +85°C<br>(ambient air temp + fuse temp rise)                               | -20°C to +85°C<br>(ambient air temp + fuse temp rise)                               | -20°C to +85°C<br>(ambient air temp + fuse temp rise)                                 |
| Mouldings:              |                                                                                     |                                                                                     |                                                                                       |
| Body:                   | Polyester UL94V-0 rated                                                             | Polyester UL94V-0 rated                                                             | Polyester UL94V-0 rated                                                               |
| Cap:                    | Nylon UL94V-0 rated                                                                 | Nylon UL94V-0 rated                                                                 | Nylon UL94V-0 rated                                                                   |
| Nut:                    | Glass Filled Nylon UL94V-0 rated                                                    | Glass Filled Nylon UL94V-0 rated                                                    |                                                                                       |
| Contacts:               | Brass, Silver Plated                                                                | Brass, Silver Plated                                                                | Brass, Silver Plated                                                                  |
| Approvals:              |  |  |  |
| Accessories:            | P.Nos. 11327, 12297 & 12298<br>(See page 206)                                       | P.Nos. 11327, 12297 & 12298<br>(See page 206)                                       | P.Nos. 11327<br>(See page 205)                                                        |
| RoHS                    | Compliant                                                                           | Compliant                                                                           | Compliant                                                                             |



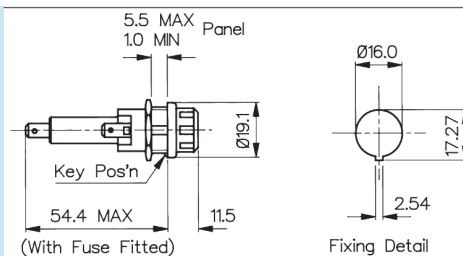
## Panel Mount



FX0415,

FX0416

- Protection Category PC2
- Fuse Sizes:  
6.3 x 32mm (FX0415)  
6.3 x 25mm (FX0416)
- Screw Cap/Hand Release
- 13A, 250V (16A, 250V UL)



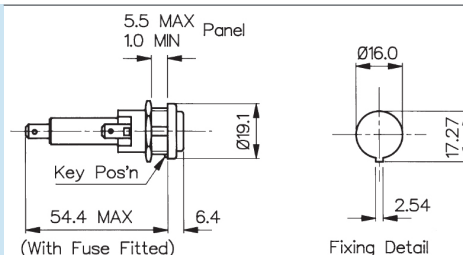
## Panel Mount



FX0415/S,

FX0416/S

- Protection Category PC2
- Fuse Sizes:  
6.3 x 32mm (FX0415/S)  
6.3 x 25mm (FX0416/S)
- Screw Cap/Screwdriver Release
- 13A, 250V (16A, 250V UL)



| Specifications          | FX0415, FX0416                                                                      | FX0415/S, FX0416/S                                                                  |
|-------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Fuse Size:              | FX0415 - 6.3 x 32mm<br>FX0416 - 6.3 x 25mm                                          | FX0415/S - 6.3 x 32mm<br>FX0416/S - 6.3 x 25mm                                      |
| Fuse Carrier:           | Screw cap/Hand release                                                              | Screw cap/Hand release                                                              |
| Terminations:           | 4.8 series tabs                                                                     | 4.8 series tabs                                                                     |
| Max. Rating:            | 13A, 250V<br>(16A, 250V UL)                                                         | 13A, 250V<br>(16A, 250V UL)                                                         |
| Max. Power Dissipation: | 4W (@ 23°C)                                                                         | 4W (@ 23°C)                                                                         |
| Insulation Resistance:  | >10 <sup>5</sup> MΩ @ 500V d.c.                                                     | >10 <sup>5</sup> MΩ @ 500V d.c.                                                     |
| A.C. Breakdown:         | 4kV @ 50Hz                                                                          | 4kV @ 50Hz                                                                          |
| Contact Resistance:     | <5mΩ                                                                                | <5mΩ                                                                                |
| Operating Temp:         | -20°C to +85°C<br>(ambient air temp + fuse temp rise)                               | -20°C to +85°C<br>(ambient air temp + fuse temp rise)                               |
| Mouldings:              |                                                                                     |                                                                                     |
| Body:                   | Glass Filled Nylon UL94V-0 rated                                                    | Glass Filled Nylon UL94V-0 rated                                                    |
| Cap:                    | Nylon UL94V-0 rated                                                                 | Nylon UL94V-0 rated                                                                 |
| Nut:                    | Polyester UL94V-0 rated                                                             | Polyester UL94V-0 rated                                                             |
| Contacts:               | Brass, Silver Plated                                                                | Brass, Silver Plated                                                                |
| Approvals:              |  |  |
| Accessories:            | P.No. 12932 (See page 205)                                                          | P.No. 12932 (See page 205)                                                          |
| <b>RoHS</b>             | Compliant                                                                           | Compliant                                                                           |

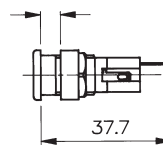
Panel Mount



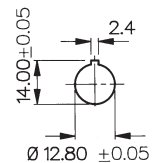
FX0354

- ⬡ Protection Category PC2
- ⬡ Low Profile Bezel
- ⬡ Fuse Size 5 x 20mm
- ⬡ Screw Cap/Screwdriver Release
- ⬡ Keyway Panel Cutout
- ⬡ 6.3A, 250V

6.4 MAX Panel  
0.8 MIN PANEL



Fixing Details



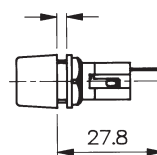
Panel Mount



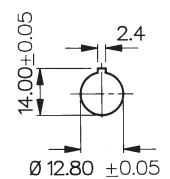
FX0354/S

- ⬡ Protection Category PC2
- ⬡ High Profile Bezel
- ⬡ Fuse Size 5 x 20mm
- ⬡ Screw Cap/Screwdriver Release
- ⬡ Keyway Panel Cutout
- ⬡ 6.3A, 250V

2.4 MAX Panel  
0.8 MIN PANEL



Fixing Details



| Specifications          | FX0354                                                | FX0354/S                                              |
|-------------------------|-------------------------------------------------------|-------------------------------------------------------|
| Fuse Size:              | 5 x 20mm                                              | 5 x 20mm                                              |
| Fuse Carrier:           | Screw cap/Screwdriver release                         | Screw cap/Screwdriver release                         |
| Terminations:           | Solder tags                                           | Solder tags                                           |
| Max. Rating:            | 6.3A, 250V                                            | 6.3A, 250V                                            |
| Max. Power Dissipation: | 2.5W (@ 23°C)                                         | 2.5W (@ 23°C)                                         |
| Insulation Resistance:  | >10 <sup>2</sup> MΩ @ 500V d.c.                       | >10 <sup>2</sup> MΩ @ 500V d.c.                       |
| A.C. Breakdown:         | 5kV @ 50Hz                                            | 5kV @ 50Hz                                            |
| Contact Resistance:     | <10mΩ                                                 | <10mΩ                                                 |
| Operating Temp:         | -20°C to +85°C<br>(ambient air temp + fuse temp rise) | -20°C to +85°C<br>(ambient air temp + fuse temp rise) |
| Mouldings:              |                                                       |                                                       |
| Body:                   | Polyester UL94V-0 rated                               | Polyester UL94V-0 rated                               |
| Cap:                    | Nylon UL94V-0 rated                                   | Nylon UL94V-0 rated                                   |
| Nut:                    | Glass Filled Nylon UL94V-0 rated                      | Glass Filled Nylon UL94V-0 rated                      |
| Contacts:               | Brass, Silver Plated                                  | Brass, Silver Plated                                  |
| Approvals:              |                                                       |                                                       |
| Accessories:            | P.No. 11327 and 12298<br>(See page 205)               | P.No. 11327 and 12298<br>(See page 205)               |
| <b>RoHS</b>             | Compliant                                             | Compliant                                             |



### Key Features

- 6.3 x 32mm fuses
- Screwdriver slot knob
- PC2 protection category
- 4.8, 6.3 and solder terminals
- Low profile bezel
- Snap in or threaded bushing mounting options

### Approvals and specifications

Ⓢ 16A 250Vac (max fuse rating\*) T-55 to T+70 (ambient)  
Maximum dissipation wattage: 4W

UL 6.3A UL 94V2 UL file E92075 CSA file LR44770

These products comply with safety category PC2.

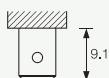
\*Users should be aware of the de-rating factors published by specialist manufacturers of fuses.

Fuseholders with in-line termination have combination (4.8/6.3) terminals. It has not been possible to show both views here. Units with right angle terminals have user specified end terminals and combination mid-body terminals.

|          |   |             |   |            |   |             |
|----------|---|-------------|---|------------|---|-------------|
| <b>T</b> | / | <b>0347</b> | / | <b>RA</b>  | / | <b>----</b> |
| Terminal |   | Body & Cap  |   | Panel Hole |   | Options     |

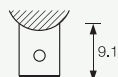
### Terminal

**C**



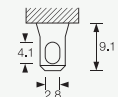
6.3 x 0.8

**D**



6.3 x 0.8  
Right angle

**T**



4.8 x 0.8  
Solder

**U**



4.8 x 0.8  
Solder

### Body

**0345** (C terminal shown)  
Screwdriver release



UL

**0345** (D terminal shown)  
Screwdriver release



UL

**0347** (T terminal shown)  
Screwdriver release



UL

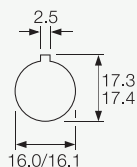
**0347** (U terminal shown)  
Screwdriver release



UL

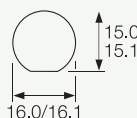
### Options

**RA**



Panel thickness  
0.8 - 2.0mm for snap fit  
0.8 - 7.0mm for screw to  
panel fixing

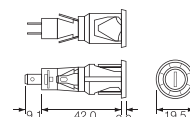
**RD**



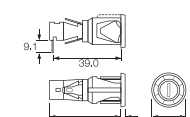
Panel thickness  
0.8 - 2.0mm for snap fit  
0.8 - 7.0mm for screw to  
panel fixing

### Dimensions

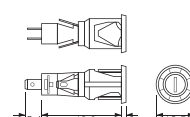
0345 (C terminal shown)



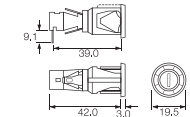
0345 (D terminal shown)



0347 (C terminal shown)



0347 (D terminal shown)



Optional metal fixing nut available for 0347

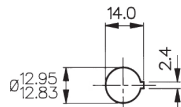
Panel Mount



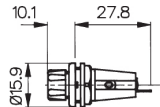
FX0296/S

FX0296

- Protection Category PC1
- Fuse Size 5 x 20mm
- Screw Cap/Hand Release
- 6.3A, 250V



Fixing Details



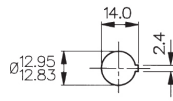
3.2 MAX Panel  
1.0 MIN Panel

Panel Mount

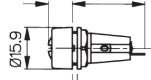
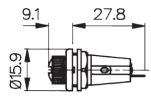


FX0296/1

- Protection Category PC1
- Fuse Size 5 x 20mm
- Screw Cap/Hand Release
- 6.3A, 250V



Fixing Details



3.2 MAX Panel  
1.0 MIN Panel

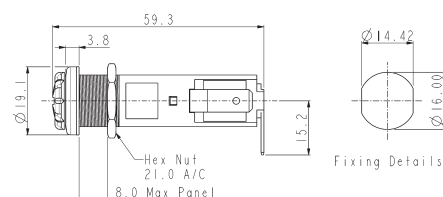
| Specifications          | FX0296, FX0296/S                                                        | FX0296/1                                              |
|-------------------------|-------------------------------------------------------------------------|-------------------------------------------------------|
| Fuse Size:              | 5 x 20mm                                                                | 5 x 20mm                                              |
| Fuse Carrier:           | FX0296 Screw cap/Hand release<br>FX0296/S Screw cap/Screwdriver release | Screw cap/Hand release                                |
| Terminations:           | Solder tags                                                             | Solder tags                                           |
| Max. Rating:            | 6.3A, 250V                                                              | 6.3A, 250V                                            |
| Max. Power Dissipation: | 2.5W (@ 23°C)                                                           | 2.5W (@ 23°C)                                         |
| Insulation Resistance:  | >10 <sup>5</sup> MΩ @ 500V d.c.                                         | >10 <sup>5</sup> MΩ @ 500V d.c.                       |
| A.C. Breakdown:         | 2.5kV @ 50Hz                                                            | 2.5kV @ 50Hz                                          |
| Contact Resistance:     | <5mΩ                                                                    | <5mΩ                                                  |
| Operating Temp:         | -20°C to +85°C<br>(ambient air temp + fuse temp rise)                   | -20°C to +85°C<br>(ambient air temp + fuse temp rise) |
| Mouldings:              |                                                                         |                                                       |
| Body:                   | Glass Filled Nylon UL94V-0 rated Nylon                                  | Glass Filled Nylon UL94V-0 rated Nylon                |
| Cap:                    | UL94V-0 rated                                                           | UL94V-0 rated                                         |
| Nut:                    | Glass Filled Nylon UL94V-0 rated                                        | Glass Filled Nylon UL94V-0 rated                      |
| Contacts:               | Brass, Silver or Tin Plated                                             | Brass, Silver or Tin Plated                           |
| Accessories             | P.No. 9820 (See page 205)                                               | P.No. 9820 (See page 205)                             |
| RoHS                    | Compliant                                                               | Compliant                                             |

## Panel Mount



FX0419

- ⬡ Panel sealed to IP68
- ⬡ Touchproof Category PC2
- ⬡ Fuse Size 6.3 x 32mm
- ⬡ Screw cap/Screwdriver/Hand Release
- ⬡ 16A. 250V ac

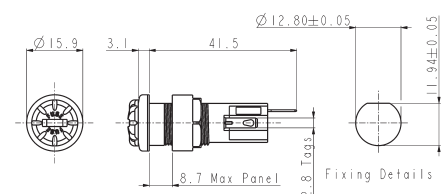


## Panel Mount



FX0462

- ⬡ Panel sealed to IP68
- ⬡ Touchproof Category PC2
- ⬡ Fuse Size 5 x 20mm
- ⬡ Screw cap/Screwdriver/Hand Release
- ⬡ 10A. 250V ac

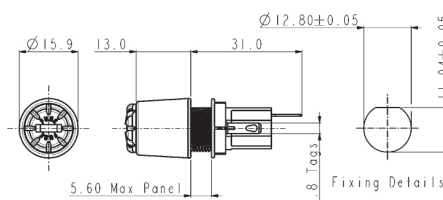


## Panel Mount



FX0463

- ⬡ Panel sealed to IP68
- ⬡ Touchproof Category PC2
- ⬡ Fuse Size 5 x 20mm
- ⬡ High Profile Bezel
- ⬡ Screw cap/Screwdriver/Hand Release
- ⬡ 10A. 250V ac



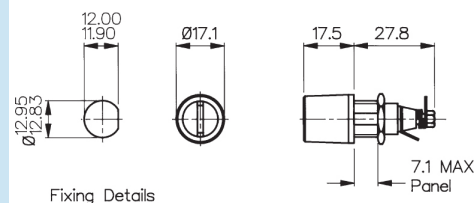
| Specifications          | FX0419                                                                              | FX0462                                                                              | FX0463                                                                                |
|-------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Fuse Size:              | 6.3 x 32mm                                                                          | 5.0 x 20mm                                                                          | 5.0 x 20mm                                                                            |
| Fuse Carrier:           | Screw cap/Screwdriver/Hand release                                                  | Screw cap/Screwdriver/Hand release                                                  | Screw cap/Screwdriver/Hand release                                                    |
| Terminations:           | 6.3 series tabs                                                                     | Solder tags                                                                         | Solder tags                                                                           |
| Max. Rating:            | 16A, 250V ac                                                                        | 10A, 250V ac                                                                        | 10A, 250V ac                                                                          |
| Max. Power Dissipation: | 2.5W (@ 23°C)                                                                       | 2.5W (@ 23°C)                                                                       | 2.5W (@ 23°C)                                                                         |
| Insulation Resistance:  | >10 <sup>6</sup> MΩ @ 500V d.c.                                                     | >10 <sup>6</sup> MΩ @ 500V d.c.                                                     | >10 <sup>6</sup> MΩ @ 500V d.c.                                                       |
| A.C. Breakdown:         | >2kV @ 50Hz                                                                         | >7kV @ 50Hz                                                                         | >7kV @ 50Hz                                                                           |
| Contact Resistance:     | <10mΩ                                                                               | <10mΩ                                                                               | <10mΩ                                                                                 |
| Operating Temp:         | -20°C to +85°C<br>(ambient air temp + fuse temp rise)                               | -20°C to +85°C<br>(ambient air temp + fuse temp rise)                               | -20°C to +85°C<br>(ambient air temp + fuse temp rise)                                 |
| Mouldings:              |                                                                                     |                                                                                     |                                                                                       |
| Body:                   | Polyester UL94V-0 rated                                                             | Polyester UL94V-0 rated                                                             | Polyester UL94V-0 rated                                                               |
| Cap:                    | Nylon UL94V-0 rated                                                                 | Nylon UL94V-0 rated                                                                 | Nylon UL94V-0 rated                                                                   |
| Nut:                    | Glass Filled Nylon UL94V-0 rated                                                    | Glass Filled Nylon UL94V-0 rated                                                    | Glass Filled Nylon UL94V-0 rated                                                      |
| Contacts:               | Brass, Silver Plated                                                                | Brass, Silver Plated                                                                | Brass, Silver Plated                                                                  |
| Tightening Torque:      |                                                                                     |                                                                                     |                                                                                       |
| Cap:                    | 0.5 - 0.6Nm (4.43-5.3lbf.in.)                                                       | 0.4 - 0.6Nm (3.54-5.3lbf.in.)                                                       | 0.4 - 0.6Nm (3.54-5.3lbf.in.)                                                         |
| Panel Nut:              | 0.5Nm (4.4lbf.in.)                                                                  | 0.5Nm (4.4lbf.in.)                                                                  | 0.5Nm (4.4lbf.in.)                                                                    |
| Sealing:                | IP68 to EN60529:1992+A2:2013<br>(10m for 2weeks)                                    | IP68 to EN60529:1992+A2:2013<br>(10m for 2weeks)                                    | IP68 to EN60529:1992+A2:2013<br>(10m for 2weeks)                                      |
| Accessories:            |                                                                                     | P.nos. 11327 (see page 205)                                                         | P.nos. 11327 (see page 205)                                                           |
| Approvals:              |  |  |  |
| RoHS                    | Compliant                                                                           | Compliant                                                                           | Compliant                                                                             |

## High Profile Panel Mount



FX0345

- ⬡ Sealed to IP66
- ⬡ Protection Category PC1
- ⬡ Fuse Size 5 x 20mm
- ⬡ Screw Cap/Screwdriver Release
- ⬡ 6.3A, 250V

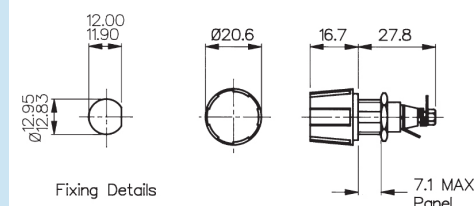


## High Profile Panel Mount



FX0365

- ⬡ Sealed to IP66
- ⬡ Protection Category PC1
- ⬡ Fuse Size 5 x 20mm
- ⬡ Screw Cap/Hand Release
- ⬡ Large Cap for Easy Grip
- ⬡ 6.3A, 250V



| Specifications          | FX0345, FX0345/A                                                                                                                                  | FX0365, FX0365/A                                               |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|
| Fuse Size:              | 5 x 20mm                                                                                                                                          | 5 x 20mm                                                       |
| Fuse Carrier:           | Screw cap/Screwdriver release                                                                                                                     | Screw cap/Screwdriver release                                  |
| Terminations:           | Solder tags                                                                                                                                       | Solder tags                                                    |
| Max. Rating:            | 6.3A, 250V                                                                                                                                        | 6.3A, 250V                                                     |
| Max. Power Dissipation: | 4W (@ 23°C)                                                                                                                                       | 4W (@ 23°C)                                                    |
| Insulation Resistance:  | >10 <sup>3</sup> MΩ @ 500V d.c.                                                                                                                   | >10 <sup>3</sup> MΩ @ 500V d.c.                                |
| A.C. Breakdown:         | >3.5kV @ 50Hz                                                                                                                                     | >3.5kV @ 50Hz                                                  |
| Contact Resistance:     | <10mΩ                                                                                                                                             | <10mΩ                                                          |
| Operating Temp:         | -20°C to +85°C<br>(ambient air temp +<br>fuse temp rise)                                                                                          | -20°C to +85°C<br>(ambient air temp +<br>fuse temp rise)       |
| Mouldings:              |                                                                                                                                                   |                                                                |
| Body & Cap:             | Glass Filled Nylon UL94V-0 rated                                                                                                                  | Glass Filled Nylon UL94V-0 rated                               |
| Spacer:                 | Glass Filled Nylon UL94HB rated                                                                                                                   | Glass Filled Nylon UL94HB rated                                |
| Insulating Sleeve:      | Nylon UL94V-0 rated                                                                                                                               | Nylon UL94V-0 rated                                            |
| Contacts:               | Brass, Silver Plated                                                                                                                              | Brass, Silver Plated                                           |
| Sealing:                | Protection Classification IP66 to EN60529:1992+A2:2013<br>Retains sealing integrity with cap removed since they are both panel and barrier sealed |                                                                |
| Variants:               | /A Silicone 'O' ring,<br>Op. Temp. -55°C to +85°C<br>Compliant                                                                                    | /A Silicone 'O' ring,<br>Op. Temp. -55°C to +85°C<br>Compliant |

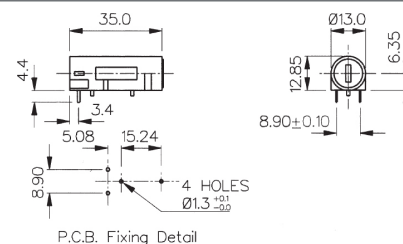
RoHS

## PC Horizontal Mount



FX0461

- Protection Category PC3
- Fuse Size 5 x 20mm
- Screw Cap/Screwdriver Release
- Captive Fuse Carrier
- PC Spills
- 10A, 250V (16A, 250V UL)



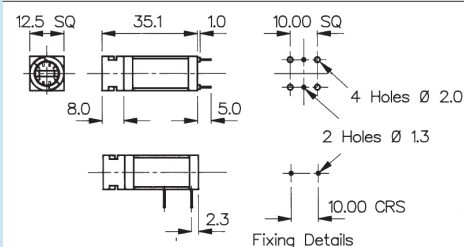
## PC Horizontal and Vertical Mount



FX0457

FX0456

- Protection Category PC2
- Fuse Sizes 5 x 20mm
- Bayonet Cap/Screwdriver Release
- 10A, 250V



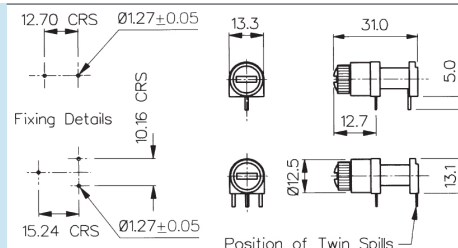
## PC Horizontal Mount



FX0330

FX0342

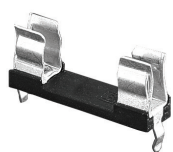
- Protection Category PC1
- Fuse Size 5 x 20mm
- Two or Three PC Spills
- Screw Cap/Hand Release
- 6.3A, 250V



| Specifications          | FX0461                                                                              | FX0456 FX0457                                                                       | FX0330 FX0342                                         |
|-------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------|
| Fuse Size:              | 5 x 20mm                                                                            | 5 x 20mm                                                                            | 5 x 20mm                                              |
| Fuse Carrier:           | Screw cap/Screwdriver release                                                       | Bayonet cap/Screwdriver release                                                     | Screw cap/Hand release                                |
| Terminations:           | PC Spills                                                                           | PC Spills                                                                           | FX0330 - 3 PC Spills<br>FX0342 - 2 PC Spills          |
| Max. Rating:            | 10A, 250V (16A, 250V a.c. UL)                                                       | 10A, 250V                                                                           | 6.3A, 250V                                            |
| Max. Power Dissipation: | 1.6W (@ 23°C)                                                                       | 2.5W (@ 23°C)                                                                       | 2.5W (@ 23°C)                                         |
| Insulation Resistance:  | >10MΩ @ 500V d.c.                                                                   | >10 <sup>9</sup> MΩ @ 500V d.c.                                                     | >10 <sup>4</sup> MΩ @ 500V d.c.                       |
| A.C. Breakdown:         | >2kV                                                                                | 4kV @ 50Hz                                                                          | 6kV @ 50Hz                                            |
| Contact Resistance:     | <10mΩ                                                                               | <10mΩ                                                                               | <5mΩ                                                  |
| Operating Temp:         | -20°C to +85°C<br>(ambient air temp + fuse temp rise)                               | -20°C to +85°C<br>(ambient air temp + fuse temp rise)                               | -20°C to +85°C<br>(ambient air temp + fuse temp rise) |
| Mouldings:              |                                                                                     |                                                                                     |                                                       |
| Body:                   | Polyester UL94V-0 rated                                                             | Polyester UL94V-0 rated                                                             | Glass Filled Nylon UL94V-0 rated                      |
| Cap:                    | Nylon UL94V-0 rated                                                                 | Nylon UL94V-0 rated                                                                 | Nylon UL94V-0 rated                                   |
| End Bung:               |                                                                                     | Polyester UL94V-0 rated                                                             |                                                       |
| Contacts:               | Brass, Silver Plated                                                                | Brass, Silver Plated                                                                | Brass, Tin Plated                                     |
| Approvals:              |  |  |                                                       |
| RoHS                    | Compliant                                                                           | Compliant                                                                           | Compliant                                             |

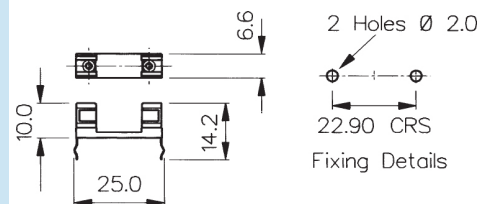


PC Mount



FX0321

- Protection Category PC1
- Fuse Size 5 x 20mm
- PC Spills
- 6.3A, 250V

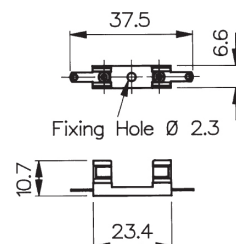


Base Mount



FX0267

- Protection Category PC1
- Fuse Size 5 x 20mm
- Solder Tags
- 6.3A, 250V

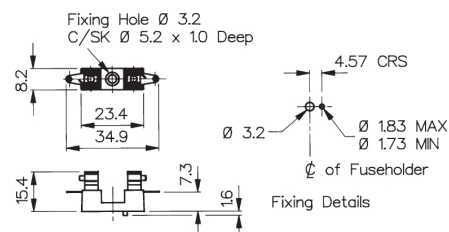


Base Mount



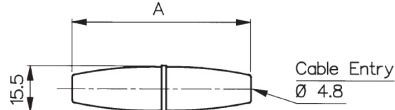
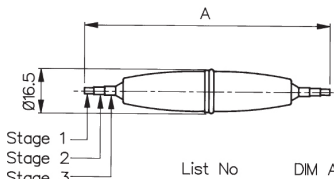
FX0360

- Protection Category PC1
- Fuse Size 5 x 20mm
- Solder Tags
- 6.3A, 250V



| Specifications                                            | FX0321                           | FX0267                           | FX0360                          |
|-----------------------------------------------------------|----------------------------------|----------------------------------|---------------------------------|
| Fuse Size:                                                | 5 x 20mm                         | 5 x 20mm                         | 5 x 20mm                        |
| Terminations:                                             | PC Spills                        | Solder tags                      | Solder tags                     |
| Max. Rating:                                              | 6.3A, 250V                       | 6.3A, 250V                       | 6.3A, 250V                      |
| Insulation Resistance:                                    | >10 <sup>5</sup> MΩ @ 500V d.c.  | >10 <sup>5</sup> MΩ @ 500V d.c.  | >10 <sup>4</sup> MΩ @ 500V d.c. |
| A.C. Breakdown:                                           | 7kV @ 50Hz (Clip to clip)        | 1.5kV @ 50Hz                     | 2kV @ 50Hz                      |
| Contact Resistance:                                       | <10mΩ                            | <10mΩ                            | <10mΩ                           |
| Operating Temp:<br>(ambient air temp +<br>fuse temp rise) | -20°C to +85°C                   | -20°C to +85°C                   | -20°C to +85°C                  |
| Base Material:                                            | Glass Filled Nylon UL94V-0 rated | Glass Filled Nylon UL94V-0 rated | Glass Filled Nylon UL94HB rated |
| Contacts:                                                 | Phosphor Bronze, Tin Plated      | Phosphor Bronze, Tin Plated      | Phosphor Bronze, Tin Plated     |
| Accessories:                                              | P.No. 12760 (See page 205)       | P.No. 12760 (See page 205)       |                                 |
| RoHS                                                      | Compliant                        | Compliant                        | Compliant                       |



| <div>In-line</div> <div></div> <div>FX0180, FX0280, FX0380</div> | <ul style="list-style-type: none"><li>○ Protection Category PC1</li><li>○ Fuse Sizes 5 x 20mm, 6.3 x 25mm and 6.3 x 32mm</li><li>○ Screw Terminal (Solder to order)</li><li>○ 10A, 50V (250V Inaccessible)</li><li>○ UL Approved (Black Only)</li><li>○ Clear or black</li></ul>                          | <div></div> <table><tr><th>List No.</th><th>DIM A</th></tr><tr><td>FX0180</td><td>60.3</td></tr><tr><td>FX0280</td><td>54.5</td></tr><tr><td>FX0380</td><td>48.6</td></tr></table> | List No. | DIM A | FX0180 | 60.3 | FX0280 | 54.5 | FX0380 | 48.6 |
|---------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------|--------|------|--------|------|--------|------|
| List No.                                                                                                                                          | DIM A                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                       |          |       |        |      |        |      |        |      |
| FX0180                                                                                                                                            | 60.3                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                       |          |       |        |      |        |      |        |      |
| FX0280                                                                                                                                            | 54.5                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                       |          |       |        |      |        |      |        |      |
| FX0380                                                                                                                                            | 48.6                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                       |          |       |        |      |        |      |        |      |
| <div>In-line</div> <div></div> <div>FX0185, FX0285, FX0385</div> | <ul style="list-style-type: none"><li>○ Sealed to IP66</li><li>○ Protection Category PC1</li><li>○ Fuse Sizes 5 x 20mm, 6.3 x 25mm and 6.3 x 32mm</li><li>○ Screw Terminal (Solder to order)</li><li>○ 10A, 50V (250V Inaccessible)</li><li>○ UL Approved (Black Only)</li><li>○ Clear or black</li></ul> | <div></div> <table><tr><th>List No</th><th>DIM A</th></tr><tr><td>FX0185</td><td>91.0</td></tr><tr><td>FX0285</td><td>85.2</td></tr><tr><td>FX0385</td><td>79.2</td></tr></table>  | List No  | DIM A | FX0185 | 91.0 | FX0285 | 85.2 | FX0385 | 79.2 |
| List No                                                                                                                                           | DIM A                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                       |          |       |        |      |        |      |        |      |
| FX0185                                                                                                                                            | 91.0                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                       |          |       |        |      |        |      |        |      |
| FX0285                                                                                                                                            | 85.2                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                       |          |       |        |      |        |      |        |      |
| FX0385                                                                                                                                            | 79.2                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                       |          |       |        |      |        |      |        |      |

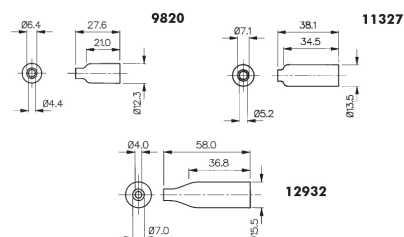
| Specifications                                         | FX0180/colour, FX0280.colour, FX0380/Colour                                                              | FX0185/Colour, FX0285/colour, FX0385/Colour                                                                                                                                   |
|--------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Fuse Size:                                             | 5 x 20mm FX0380<br>6.3 x 25mm FX0280<br>6.3 x 32mm FX0180                                                | 5 x 20mm FX0385<br>6.3 x 25mm FX0285<br>6.3 x 32mm FX0185                                                                                                                     |
| Cable Acceptance:                                      | 1mm <sup>2</sup> conductor (max.)                                                                        | 1mm <sup>2</sup> conductor (max.)<br>1mm to 2.64mm overall diameter<br>Stepped grommet:<br>Stage 1: 1.00mm to 1.40mm<br>Stage 2: 1.50mm to 1.90mm<br>Stage 3: 2.0mm to 2.64mm |
| Terminations:                                          | Screw terminal (solder to order)                                                                         | Screw Terminal (solder to order)                                                                                                                                              |
| Max. Rating:                                           | 10A, 50V (250V where inaccessible inside equipment)                                                      | 10A, 50V (250V where inaccessible inside equipment)                                                                                                                           |
| Insulation Resistance:                                 | >10 <sup>5</sup> MΩ @ 500V d.c.                                                                          | >10 <sup>5</sup> MΩ @ 500V d.c.                                                                                                                                               |
| High Voltage Proof Test:                               | 2kV (50Hz for 1 minute)                                                                                  | 2kV (50Hz for 1 minute)                                                                                                                                                       |
| Contact Resistance:                                    | <10mΩ                                                                                                    | <10mΩ                                                                                                                                                                         |
| Operating Temp:<br>(ambient air temp + fuse temp rise) | -20°C to +90°C                                                                                           | -20°C to +70°C                                                                                                                                                                |
| Sealing:                                               |                                                                                                          | Protection Classification IP66<br>EN60529: 1992+A2:2013                                                                                                                       |
| Screw Tightening Torque                                | 0.226Nm (2lb/in)                                                                                         | 0.226Nm (2lb/in)                                                                                                                                                              |
| Mouldings:                                             |                                                                                                          |                                                                                                                                                                               |
| Body - Clear:                                          | Polybutene UL94HB rated                                                                                  | Polybutene UL94HB rated                                                                                                                                                       |
| Body - Black:                                          | Nylon 6 UL94V-0 rated                                                                                    | Nylon 6 UL94V-0 rated                                                                                                                                                         |
| Grommet:                                               |                                                                                                          | PVC                                                                                                                                                                           |
| O Ring:                                                |                                                                                                          | Nitrile                                                                                                                                                                       |
| Contacts:                                              |                                                                                                          |                                                                                                                                                                               |
| Terminals:                                             | Brass, Nickel Plated                                                                                     | Brass, Nickel Plated                                                                                                                                                          |
| Grub Screw:                                            | Stainless Steel                                                                                          | Stainless Steel                                                                                                                                                               |
| Approvals:                                             |  (Black version only) |  (Black version only)                                                                    |
| Colour:                                                | Clear - no suffix, /BK - Black                                                                           | Clear - no suffix, /BK - Black                                                                                                                                                |
| RoHS                                                   | Compliant                                                                                                | Compliant                                                                                                                                                                     |

### Insulation Boots

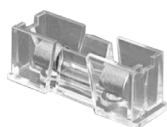


PNo. 11327 PNo. 12932 PNo. 9820

- Provide Insulation against Shock on Rear of Fuseholder
- PVC
- UL94V-0 rated flame retardant material

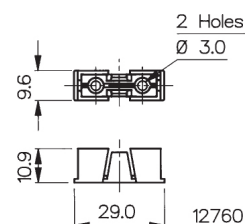


### Insulation Cover



PNo. 12760

- Provide Insulation from Live Parts on Fuseholder
- Clear
- Polycarbonate

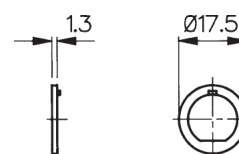


### Adaptor



PNo. 12297

- Adaptor to Convert Fixing Holes
- Maintains Anti-Rotation
- Glass Filled Nylon



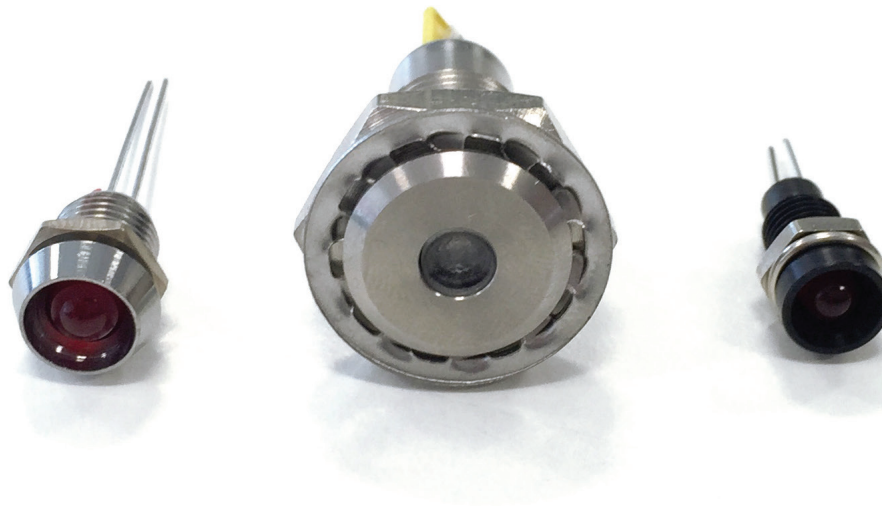
12297

| Accessories                  | For Use With:                                                                                                        |
|------------------------------|----------------------------------------------------------------------------------------------------------------------|
| P.No. 9820 (Boot)            | FX0296, FX0296/1, FX0296/S                                                                                           |
| P.No. 11327 (Boot)           | FX0354, FX0354/S, FX0357, FX0359, FX0454, FX0454/S, FX0455, FX0455/S, FX0460, FX0458, FX0367, FX0369, FX0462, FX0463 |
| P.No. 12932 (Boot)           | FX0415, FX0415/S, FX0416, FX0416/S                                                                                   |
| P.No. 12760 (Cover)          | FX0267, FX0321                                                                                                       |
| Max. Working Voltage:        | 250V a.c.                                                                                                            |
| Flash Tested to:             | 2kV a.c.                                                                                                             |
| Material:                    | P.Nos. 9820, 11327, 12932: PVC - UL94V-0<br>P.No. 12760: Polycarbonate                                               |
| P.No. 12297 (Adaptor Washer) | Adapts 'D' fixing to anti-rotation Key Fixing<br>FX0455, FX0455/S                                                    |
| Material:                    | Glass Filled Nylon                                                                                                   |
| <b>RoHS</b>                  | Compliant                                                                                                            |

This range of panel mounting **LED indicators** consists of many different **bezel styles**, types of LED's and colours. The range has developed to meet the different needs of panel design including **IP66 and IP67 environmentally sealed versions** for use where a front panel seal is needed.

The vandal resistant LED indicators are designed to complement the vandal resistant switches (see the Switch Section), they have similar profiles with stainless steel bodies, sealing to IP66 & 68 and are built to withstand harsh environments.

|                         |         |
|-------------------------|---------|
| Vandal Resistant LED    | 317-318 |
| LED Bezel               | 319-323 |
| Indicator Lights        | 324-330 |
| Low Voltage Lampholders | 331-332 |
| LED Lampholders         | 333-334 |
| Indicator Lights IP67   | 335     |

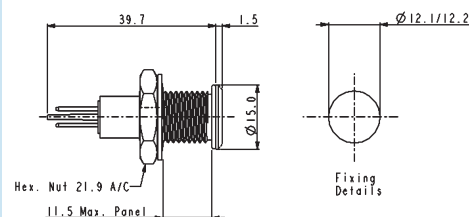


## Proud of Panel Profile



DX0505

- Solder Tag/2.8mm Tag Termination
- Sealed to IP67
- Red, Green, Yellow or Blue LED Options
- Wide Viewing Angle
- Shock and Vibration Resistant
- Stainless Steel body

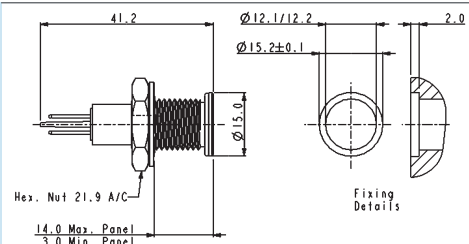


## Flush Panel Profile



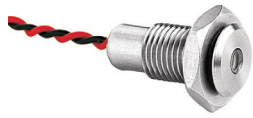
DX0506

- Solder Tag/2.8mm Tag Termination
- Sealed to IP67
- Red, Green, Yellow or Blue LED Options
- Wide Viewing Angle
- Shock and Vibration Resistant
- Stainless Steel body



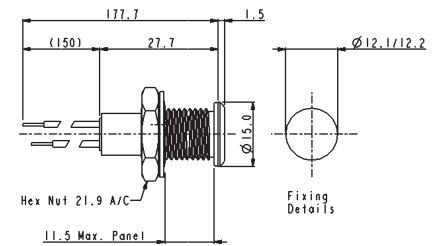
| Specifications               | DX0505/Col/Voltage                                                           | DX0506/Col/Voltage                                                           |
|------------------------------|------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| Terminations:                | Solder Tab/2.8mm Tab                                                         | Solder Tab/2.8mm Tab                                                         |
| Forward Voltage:             | Red 1.85V, Green 2.2V, Yellow 2.0V, Blue 3.8V                                | Red 1.85V, Green 2.2V, Yellow 2.0V, Blue 3.8V                                |
| Cont. Forward Current: (max) | Red 30mA, Green 25mA, Yellow 30mA, Blue 25mA                                 | Red 30mA, Green 25mA, Yellow 30mA, Blue 25mA                                 |
| Power Dissipation:           | Red 100mW, Green 105mW, Yellow 125mW, Blue 120mW                             | Red 100mW, Green 105mW, Yellow 125mW, Blue 120mW                             |
| Reverse Current: (@Vr = 5V)  | Red 10µA max., Green 10µA max., Yellow 10µA max., Blue 50µA max.             | Red 10µA max., Green 10µA max., Yellow 10µA max., Blue 50µA max.             |
| LED Luminous Intensity:      | Red 2000mcd, Green 100mcd, Yellow 400mcd, Blue 1600mcd (typ)                 | Red 2000mcd, Green 100mcd, Yellow 400mcd, Blue 1600mcd (typ)                 |
| Operating Temp. Range:       | -40°C to +80°C                                                               | -40°C to +80°C                                                               |
| Storage Temperature:         | -40°C to +85°C                                                               | -40°C to +85°C                                                               |
| Sealing (Front of panel):    | Protection Classification IP67 to EN60529:1992+A2:2013                       | Protection Classification IP67 to EN60529:1992+A2:2013                       |
| Materials                    |                                                                              |                                                                              |
| Body:                        | Stainless Steel                                                              | Stainless Steel                                                              |
| Lens:                        | Polycarbonate UL94V-0                                                        | Polycarbonate UL94V-0                                                        |
| O Ring (external):           | Nitrile                                                                      | Nitrile                                                                      |
| (internal):                  | Silicone                                                                     | Silicone                                                                     |
| Tightening Torque            | 0.5Nm - 0.9Nm (4.4lbf.in. - 8.0lbf.in.)                                      | 0.5Nm - 0.9Nm (4.4lbf.in. - 8.0lbf.in.)                                      |
| Thread Size:                 | M12 x 1.25-6g                                                                | M12 x 1.25-6g                                                                |
| LED Colours:                 | /RD (Red), /GN (Green), /YL (Yellow) /BL (Blue), with colour coded insulator | /RD (Red), /GN (Green), /YL (Yellow) /BL (Blue), with colour coded insulator |
| LED Voltage:                 | /12 (12V d.c.), /24 (24V d.c.) or /00 (no ballast resistor)                  | /12 (12V d.c.), /24 (24V d.c.) or /00 (no ballast resistor)                  |
| RoHS                         | Compliant                                                                    | Compliant                                                                    |

## Proud of Panel Profile

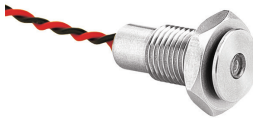


DX0507

- Flying Lead Termination
- Sealed to IP67
- Red, Green, Yellow or Blue LED Options
- Wide Viewing Angle
- Shock and Vibration Resistant
- Stainless Steel body

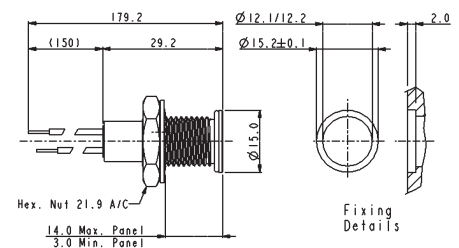


## Flush Panel Profile



DX0508

- Flying Lead Termination
- Sealed to IP67
- Red, Green, Yellow or Blue LED Options
- Wide Viewing Angle
- Shock and Vibration Resistant
- Stainless Steel body



| Specifications               | DX0507/Col/Voltage                                                           | DX0508/Col/Voltage                                                           |
|------------------------------|------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| Terminations:                | Flying Leads                                                                 | Flying Leads                                                                 |
| Forward Voltage:             | Red 1.85V, Green 2.2V, Yellow 2.0V, Blue 3.8V                                | Red 1.85V, Green 2.2V, Yellow 2.0V, Blue 3.8V                                |
| Cont. Forward Current: (max) | Red 30mA, Green 25mA, Yellow 30mA, Blue 25mA                                 | Red 30mA, Green 25mA, Yellow 30mA, Blue 25mA                                 |
| Power Dissipation:           | Red 100mW, Green 105mW, Yellow 125mW, Blue 120mW                             | Red 100mW, Green 105mW, Yellow 125mW, Blue 120mW                             |
| Reverse Current: (@Vr = 5V)  | Red 10µA max., Green 10µA max., Yellow 10µA max., Blue 50µA max.             | Red 10µA max., Green 10µA max., Yellow 10µA max., Blue 50µA max.             |
| LED Luminous Intensity:      | Red 2000mcd, Green 100mcd, Yellow 400mcd, Blue 1600mcd (typ)                 | Red 2000mcd, Green 100mcd, Yellow 400mcd, Blue 1600mcd (typ)                 |
| Operating Temp. Range:       | -40°C to +80°C                                                               | -40°C to +80°C                                                               |
| Storage Temperature:         | -40°C to +85°C                                                               | -40°C to +85°C                                                               |
| Sealing (Front of panel):    | Protection Classification IP67 to EN60529:1992+A2:2013                       | Protection Classification IP67 to EN60529:1992+A2:2013                       |
| Materials                    |                                                                              |                                                                              |
| Body:                        | Stainless Steel                                                              | Stainless Steel                                                              |
| Lens:                        | Polycarbonate UL94V-0                                                        | Polycarbonate UL94V-0                                                        |
| O Ring (external):           | Nitrile                                                                      | Nitrile                                                                      |
| (internal):                  | Silicone                                                                     | Silicone                                                                     |
| Tightening Torque            | 0.5Nm - 0.9Nm (4.4lbf.in. - 8.0lbf.in.)                                      | 0.5Nm - 0.9Nm (4.4lbf.in. - 8.0lbf.in.)                                      |
| Thread Size:                 | M12 x 1.25-6g                                                                | M12 x 1.25-6g                                                                |
| LED Colours:                 | /RD (Red), /GN (Green), /YL (Yellow) /BL (Blue), with colour coded insulator | /RD (Red), /GN (Green), /YL (Yellow) /BL (Blue), with colour coded insulator |
| LED Voltage:                 | /12 (12V d.c.), /24 (24V d.c.) or /00 (no ballast resistor)                  | /12 (12V d.c.), /24 (24V d.c.) or /00 (no ballast resistor)                  |
| RoHS                         | Compliant                                                                    | Compliant                                                                    |



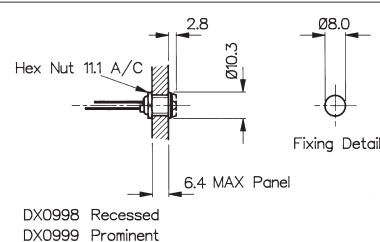
#### Chrome Plated Brass Bezel



DX0998

DX0999

- Chrome Plated Brass Bezel
- Prominent or Recessed Style
- Choice of LED Types and Colours



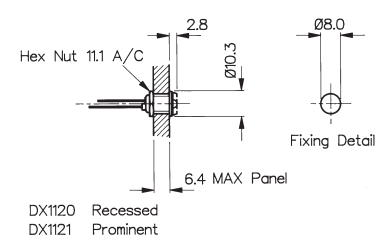
#### Nylon Bezel



DX1120

DX1121

- Glass Filled Nylon Bezel
- Prominent or Recessed Style
- Choice of LED Types and Colours



| Specifications         | DX0998, DX0999/Colour/Options                                                                                                                                                 | DX1120, DX1121/Colour/Options                                                                                                                                                 |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Bezel Material:        | Brass, Chrome Plated                                                                                                                                                          | Glass Filled Nylon                                                                                                                                                            |
| Style:                 | Recessed (DX0998)<br>Prominent (DX0999)                                                                                                                                       | Recessed (DX1120)<br>Prominent (DX1121)                                                                                                                                       |
| Operating Temp. Range: | Dependent on LED used                                                                                                                                                         | Dependent on LED used                                                                                                                                                         |
| Storage Temperature:   | Dependent on LED used                                                                                                                                                         | Dependent on LED used                                                                                                                                                         |
| LED Colours:           | /RD (Red), /GN (Green), /YL (Yellow),<br>/BL (Blue), /TR (Tri Colour),<br>/D1 (Dual Colour - Red/Green),<br>/D2 (Dual Colour - Red/Amber),<br>/D3 (Dual Colour - Green/Amber) | /RD (Red), /GN (Green), /YL (Yellow),<br>/BL (Blue), /TR (Tri Colour),<br>/D1 (Dual Colour - Red/Green),<br>/D2 (Dual Colour - Red/Amber),<br>/D3 (Dual Colour - Green/Amber) |
| LED Options:           | /02 (Flashing, Green or Red only)                                                                                                                                             | /02 (Flashing, Green or Red only)                                                                                                                                             |
| Thread Size:           | 0.312" x 32TPI                                                                                                                                                                | 0.312" x 32TPI                                                                                                                                                                |
| <b>RoHS</b>            | Compliant                                                                                                                                                                     | Compliant                                                                                                                                                                     |

See Page 212 for LED options and specifications\*

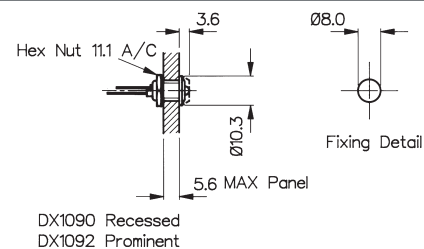
Aluminium Bezel - IP66 Sealed



DX1090

DX1092

- Aluminium Bezel, Black
- Anodised Finish
- IP66 Front Panel Sealed
- Prominent or Recessed Style
- Choice of LED Types and Colours



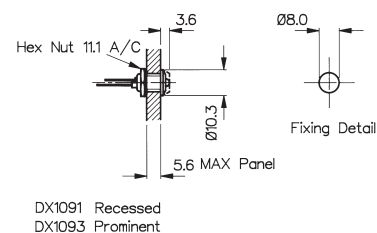
Aluminium Bezel - IP66 Sealed



DX1091

DX1093

- Aluminium Bezel, Clear
- Anodised Finish
- IP66 Front Panel Sealed
- Prominent or Recessed Style
- Choice of LED Types and Colours



| Specifications            | DX1090, DX1092/Colour/Options                                                                                                                                                 | DX1091, DX1093/Colour/Options                                                                                                                                                 |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Materials:                | Aluminium - Black                                                                                                                                                             | Aluminium - Clear                                                                                                                                                             |
| Style:                    | Recessed (DX1090)<br>Prominent (DX1092)                                                                                                                                       | Recessed (DX1091)<br>Prominent (DX1093)                                                                                                                                       |
| Operating Temp. Range:    | Dependent on LED used                                                                                                                                                         | Dependent on LED used                                                                                                                                                         |
| Storage Temperature:      | Dependent on LED used                                                                                                                                                         | Dependent on LED used                                                                                                                                                         |
| Sealing (Front of panel): | Protection Classification IP66 to EN60529:1992+A2:2013                                                                                                                        | Protection Classification IP66 to EN60529:1992+A2:2013                                                                                                                        |
| Tightening Torque:        | 0.056Nm (8ozf.in.) min                                                                                                                                                        | 0.056Nm (8ozf.in.) min                                                                                                                                                        |
| Lead Solder Time:         | 260°C for 5 seconds max.                                                                                                                                                      | 260°C for 5 seconds max.                                                                                                                                                      |
| LED Colours:              | /RD (Red), /GN (Green), /YL (Yellow),<br>/BL (Blue), /TR (Tri Colour),<br>/D1 (Dual Colour - Red/Green),<br>/D2 (Dual Colour - Red/Amber),<br>/D3 (Dual Colour - Green/Amber) | /RD (Red), /GN (Green), /YL (Yellow),<br>/BL (Blue), /TR (Tri Colour),<br>/D1 (Dual Colour - Red/Green),<br>/D2 (Dual Colour - Red/Amber),<br>/D3 (Dual Colour - Green/Amber) |
| Thread Size:              | 0.312" x 32TPI                                                                                                                                                                | 0.312" x 32TPI                                                                                                                                                                |
| <b>RoHS</b>               | Compliant                                                                                                                                                                     | Compliant                                                                                                                                                                     |

See Page 212 for LED options and specifications

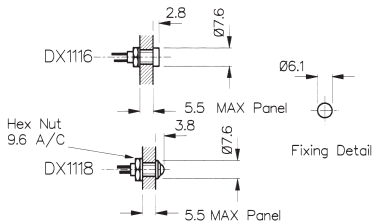
Chrome Plated Brass Bezel



DX1116

DX1118

- Chrome Plated Brass Bezel
- Prominent or Recessed Style
- Choice of LED Types and Colours



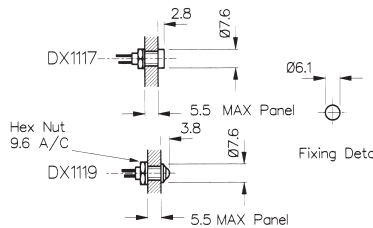
Black Nickel Pated Brass Bezel



DX1117

DX1119

- Aluminium, Black Anodised Bezel
- Prominent or Recessed Style
- Choice of LED Types and Colours

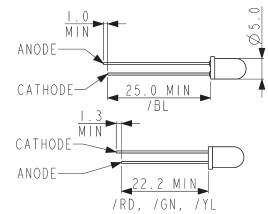


| Specifications         | DX1116, DX1118/Colour                               | DX1117, DX1119/Colour                               |
|------------------------|-----------------------------------------------------|-----------------------------------------------------|
| Bezel Materials:       | Brass, Chrome Plated                                | Aluminium, Black Anodised                           |
| Style:                 | Recessed (DX1116)<br>Prominent (DX1118)             | Recessed (DX1117)<br>Prominent (DX1119)             |
| Operating Temp. Range: | Dependent on LED used                               | Dependent on LED used                               |
| Storage Temperature:   | Dependent on LED used                               | Dependent on LED used                               |
| Lead Solder Time:      | 260°C for 5 seconds max.                            | 260°C for 5 seconds max.                            |
| LED Colours:           | /RD (Red), /GN (Green), /YL (Yellow),<br>/BL (Blue) | /RD (Red), /GN (Green), /YL (Yellow),<br>/BL (Blue) |
| RoHS                   | Compliant                                           | Compliant                                           |

See Page 213 for LED specifications\*

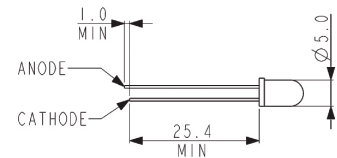
#### 5mm LEDs STANDARD

| Specification                | Red                       | Green    | Yellow   | Blue           |
|------------------------------|---------------------------|----------|----------|----------------|
| Luminous Intensity @20mA:    | 25mcd                     | 20mcd    | 20mcd    | 21mcd          |
| Forward voltage:             | 2.0V                      | 2.0V     | 2.1V     | 3.5V           |
| Cont. Forward Current (max): | 30mA                      | 25mA     | 30mA     | 30mA           |
| Power Dissipation:           | 105mW (max) @20°C Ambient |          |          | 120mW          |
| Reverse Current:             | 10µA                      | 10µA     | 10µA     | 50µA           |
| Reverse Voltage:             | 5V (max)                  | 5V (max) | 5V (max) | 5V (max)       |
| Operating Temp:              | -40°C to +85°C            |          |          | -20°C to +80°C |
| Part No:                     | /RD                       | /GN      | /YL      | /BL            |



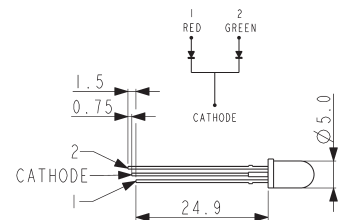
#### 5mm LEDs FLASHING

| Specification                | Red                        | Green  |
|------------------------------|----------------------------|--------|
| Luminous Intensity @20mA:    | 1.2mcd                     | 20mcd  |
| Forward voltage:             | 2.0-15.0V                  | 2.0V   |
| Cont. Forward Current (max): | 10-30mA                    | 25mA   |
| Power Dissipation:           | 200mW (max) @ 20°C ambient |        |
| Flash Frequency @ 3V supply: | 2.2Hz (typ)                |        |
| Operating Temp:              | 0°C to +70°C               |        |
| Part No:                     | /RD/02                     | /GN/02 |



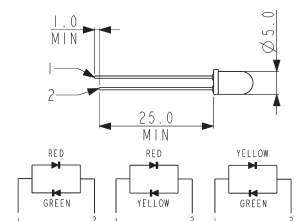
#### 5mm LEDs TRI COLOUR

| Specification                | Red/Green/Amber            |
|------------------------------|----------------------------|
| Luminous Intensity @20mA:    | 2.5mcd                     |
| Forward voltage:             | 2.4V                       |
| Cont. Forward Current (max): | 30mA (max)                 |
| Power Dissipation:           | 150mW (max) @ 20°C Ambient |
| Reverse Current:             | 100µA                      |
| Reverse Voltage:             | 5V (max)                   |
| Operating Temp:              | -40°C to +70°C             |
| Part No:                     | /TR                        |



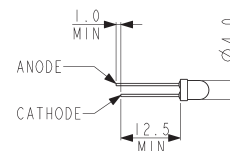
#### 5mm LEDs DUAL COLOUR

| Specifications         | Red/Green      | Red/Amber  | Green/Amber |
|------------------------|----------------|------------|-------------|
| Luminous Intensity:    | 4.5/5mcd       | 4.5/4mcd   | 4/5mcd      |
| Forward voltage:       | 2.2V           | 2.2V       | 2.2V        |
| Cont. Forward Current: | 30mA/30mA      | 30mA/20mA  | 30mA/20mA   |
| Power Dissipation:     | 100mW/100mW    | 100mW/60mW | 100mW/60mW  |
| Reverse Current:       | 100mA          | 100mA      | 100mA       |
| Reverse Voltage:       | 5V (max)       | 5V (max)   | 5V (max)    |
| Operating Temp:        | -40°C to +85°C |            |             |
| Part No:               | /D1            | /D2        | /D3         |



#### 4mm LEDs Standard

| Specifications                          | Red      | Green    | Yellow   | Blue     |
|-----------------------------------------|----------|----------|----------|----------|
| Luminous Intensity @10mA:               | 2.5mcd   | 2.5mcd   | 2.5mcd   | 50mcd    |
| Forward voltage:                        | 2.0V     | 2.1V     | 2.0V     | 3.8V     |
| Cont. Forward Current (max):            | 30mA     | 30mA     | 20mA     | 30mA     |
| Power Dissipation (max) @ 20°C Ambient: | 100mW    | 100mW    | 85mW     | 120mW    |
| Reverse Current:                        | 10µA     | 10µA     | 10µA     | 50µA     |
| Reverse Voltage:                        | 5V (max) | 5V (max) | 5V (max) | 5V (max) |
| Part No:                                | /RD      | /GN      | /YL      | /BL      |



#### Part No Breakdown

| DXxxxx            | / | XX                                                                                                                                                                                                                                                     | / | XX                                                                                   |
|-------------------|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|--------------------------------------------------------------------------------------|
| <b>Bezel Type</b> |   | <b>LED Colour</b><br>RD = Red<br>GN = Green<br>YL = Yellow<br>BL = Blue<br>D1 = Dual Colour - 5mm (Red/<br>Green)<br>D2 = Dual Colour - 5mm (Red/<br>Amber)<br>D3 = Dual Colour - 5mm (Green/<br>Amber)<br>TR = Tri Colour - 5mm (Red/<br>Green/Amber) |   | <b>LED Options</b><br>Blank = Standard<br>02 = Flashing - 5mm (Red or<br>Green only) |

#### Example:

DX1092/RD/02 = Black Aluminum IP66 Prominent Bezel, with Red flashing LED

# Indicator Lights

Neon, LED and Filament Lamp



## Key Features

- Neon, LED, mains LED or filament lamp
- Bezel sizes from 6.7 to 16.3mm diameter
- Red, amber, green, blue and clear lenses
- Red, yellow, green, blue and white LEDs
- Wide choice of styles

## Colours and voltages:

### NEON



Available with Red, Amber, Green or Clear lenses  
100/130V (marked 110V),  
200/250V (marked 230V)

### DC LED



Red, Yellow, Green, Blue, White  
2.0/2.2V  
Resistors for other voltages available.

### AC MAINS LED



Red, Yellow, Green, Blue, White  
110-230V ac operation.

### FILAMENT



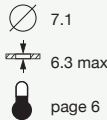
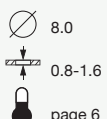
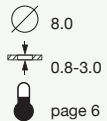
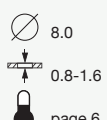
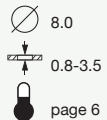
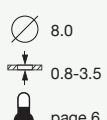
Available with Red, Amber, Green, Clear or Blue lenses  
6V, 12/14V, 24/28V.

| Terminal     | Type               | Sealed                   | Illumination                                 | Colour                              | Voltage                      | Options                         |
|--------------|--------------------|--------------------------|----------------------------------------------|-------------------------------------|------------------------------|---------------------------------|
| <b>B</b> 2.8 | <b>(B) 0566 A</b>  | 6.0<br>2.0 max<br>page 6 | <b>N</b><br><b>L</b><br><b>M</b>             | Neon & Filament<br><b>R</b><br>Red  | <b>1</b><br>LED No Resistor  | <b>C</b><br>Chrome Bezel Finish |
| <b>B</b> 2.8 | <b>(B) 0566 B</b>  | 6.0<br>2.0 max<br>page 6 | <b>N</b><br><b>L</b><br><b>M</b>             | Amber<br><b>A</b><br>Amber          | <b>2</b><br>125V Neon        |                                 |
| <b>B</b> 2.8 | <b>(B) 0566 C</b>  | 6.0<br>2.0max<br>        | <b>N</b><br><b>L</b><br><b>M</b>             | Green<br><b>G</b><br>Green          | <b>3</b><br>250V Neon        |                                 |
| <b>B</b> 2.8 | <b>(B) 0566 C</b>  | 6.0<br>2.0max<br>        | <b>N</b><br><b>L</b><br><b>M</b>             | Blue<br>(Special Order)<br><b>B</b> | <b>4</b><br>6Vdc LED         |                                 |
| <b>L</b>     | <b>(L) 1041 00</b> | 6.3<br>6.3max<br>page 6  | <b>N</b><br><b>L</b><br><b>F</b>             | Clear<br><b>C</b>                   | <b>5</b><br>12Vdc LED        |                                 |
| <b>C</b> 6.3 | <b>(C) 0145 AA</b> | 5.8<br>3.0max<br>page 6  | <b>N</b><br><b>L</b><br><b>M</b><br><b>F</b> | LED<br><b>R</b>                     | <b>6</b><br>24Vdc LED        |                                 |
| <b>L</b>     | <b>(L) 1041 00</b> | 6.3<br>6.3max<br>page 6  | <b>N</b><br><b>L</b><br><b>F</b>             | Red<br><b>R</b>                     | <b>7</b><br>12/14V Filament  |                                 |
| <b>W</b>     | <b>(L) 1045 00</b> | 6.3<br>10.0max<br>page 6 | <b>N</b><br><b>L</b><br><b>M</b><br><b>F</b> | Yellow<br><b>Y</b>                  | <b>8</b><br>24/ 28V Filament |                                 |
| <b>L</b>     | <b>(L) 1045 00</b> | 6.3<br>10.0max<br>page 6 | <b>N</b><br><b>L</b><br><b>M</b><br><b>F</b> | Green<br><b>G</b>                   | <b>9</b><br>125/250Vac LED   |                                 |
| <b>W</b>     | <b>(L) 1045 00</b> | 6.3<br>10.0max<br>page 6 | <b>N</b><br><b>L</b><br><b>M</b><br><b>F</b> | Blue<br><b>B</b>                    |                              |                                 |

# Indicator Lights

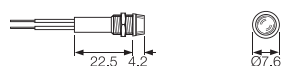
Neon, LED and Filament Lamp



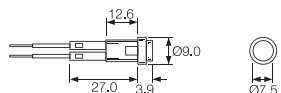
| Terminal                 | Type                                                                                                        | Sealed                                                                                                          | Illumination                                 | Colour                                                                                                                                   | Voltage                                                                                                                                                                                                                                              | Options                            |
|--------------------------|-------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| <b>L</b><br><b>W</b>     | <b>(L) 0245 00</b><br>     | <br>7.1<br>6.3 max<br>page 6   | <b>N</b><br><b>L</b><br><b>M</b><br><b>F</b> | Neon & Filament<br><b>R</b><br>Red<br><b>A</b><br>Amber<br><b>G</b><br>Green<br><b>B</b><br>Blue<br>(Special Order)<br><b>C</b><br>Clear | <b>1</b><br>LED No Resistor<br><b>2</b><br>125V Neon<br><b>3</b><br>250V Neon<br><b>4</b><br>6Vdc LED<br><b>5</b><br>12Vdc LED<br><b>6</b><br>24Vdc LED<br><b>7</b><br>12/14V Filament<br><b>8</b><br>24/ 28V Filament<br><b>9</b><br>125/250Vac LED | <b>C</b><br>Chrome<br>Bezel Finish |
| <b>L</b>                 | <b>L 2950 00</b><br>       | <br>8.0<br>0.8-1.6<br>page 6   | <b>N</b><br><b>L</b><br><b>M</b><br><b>F</b> |                                                                                                                                          |                                                                                                                                                                                                                                                      |                                    |
| <b>L</b><br><b>C</b> 6.3 | <b>(L) 0195 BB</b><br>     | <br>8.0<br>0.8-3.0<br>page 6   | <b>N</b><br><b>F</b>                         |                                                                                                                                          |                                                                                                                                                                                                                                                      |                                    |
| <b>L</b>                 | <b>L 2951 00</b><br>      | <br>8.0<br>0.8-1.6<br>page 6  | <b>N</b><br><b>L</b><br><b>M</b><br><b>F</b> | LED<br><b>R</b><br>Red<br><b>Y</b><br>Yellow<br><b>G</b><br>Green<br><b>B</b><br>Blue                                                    |                                                                                                                                                                                                                                                      |                                    |
| <b>L</b><br><b>H</b> 4.8 | <b>H) 0568 A(*)</b><br>  | <br>8.0<br>0.8-3.5<br>page 6 | <b>N</b><br><b>L</b><br><b>F</b>             |                                                                                                                                          |                                                                                                                                                                                                                                                      |                                    |
| <b>L</b><br><b>H</b> 4.8 | <b>(H) 0568 B(*)</b><br> | <br>8.0<br>0.8-3.5<br>page 6 | <b>N</b><br><b>L</b><br><b>F</b>             |                                                                                                                                          |                                                                                                                                                                                                                                                      |                                    |

## Dimensions

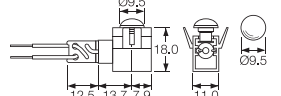
**(B) 0566 A**



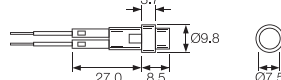
**(B) 0566 B**



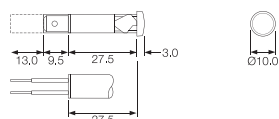
**(B) 0566 C**



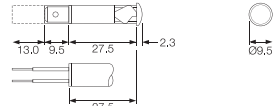
**(C) 0145 AA**



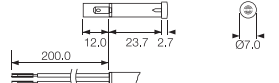
**(L) 1041 00**



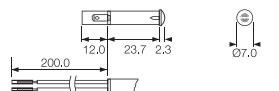
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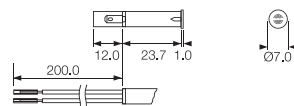
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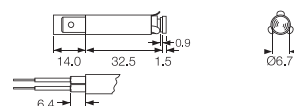
**L 2950 00**



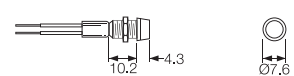
**(L) 0195 BB**



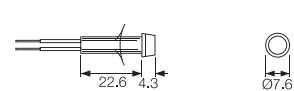
**H) 0568 A(\*)**



**L 2951 00**



**(H) 0568 B(\*)**





# Indicator Lights

Neon, LED and Filament Lamp



## Key Features

- Neon, LED, mains LED or filament lamp
- Bezel sizes from 6.7 to 16.3mm diameter
- Red, amber, green, blue and clear lenses
- Red, yellow, green, blue and white LEDs
- Wide choice of styles

## Colours and voltages:

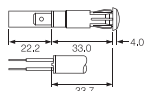
| NEON                                                                                                  | DC LED                                                                                 | AC MAINS LED                                              | FILAMENT                                                                      |
|-------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------------|
|                                                                                                       |                                                                                        |                                                           |                                                                               |
| Available with Red, Amber, Green or Clear lenses<br>100/130V (marked 110V),<br>200/250V (marked 230V) | Red, Yellow, Green, Blue, White<br>2.0/2.2V<br>Resistors for other voltages available. | Red, Yellow, Green, Blue, White<br>110-230V ac operation. | Available with Red, Amber, Green, Clear or Blue lenses<br>6V, 12/14V, 24/28V. |

| Terminal                                                 | Type                   | Illumination                                 | Colour                                                                                                                                                       | Voltage                                                                                                                                        | Options                            | Panel                            | Approval |
|----------------------------------------------------------|------------------------|----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|----------------------------------|----------|
| <b>L</b>                                                 | <b>(L) 0569 AW</b><br> | <b>N</b><br><b>L</b><br><b>M</b><br><b>F</b> | Neon & Filament<br><br><b>R</b><br>Red<br><br><b>A</b><br>Amber<br><br><b>G</b><br>Green<br><br><b>B</b><br>Blue<br>(Special Order)<br><br><b>C</b><br>Clear | <b>1</b><br>LED No Resistor<br><br><b>2</b><br>125V Neon<br><br><b>3</b><br>250V Neon<br><br><b>4</b><br>6Vdc LED<br><br><b>5</b><br>12Vdc LED | <b>C</b><br>Chrome<br>Bezel Finish | <br>9.0<br>0.8-2.5<br>Call sales |          |
| <b>L</b><br><b>K</b> 2.8<br><b>H</b> 4.8<br><b>C</b> 6.3 | <b>(C) 0273 00</b><br> | <b>N</b><br><b>L</b><br><b>M</b><br><b>F</b> | <b>R</b><br>Red<br><br><b>A</b><br>Amber<br><br><b>G</b><br>Green<br><br><b>B</b><br>Blue<br>(Special Order)<br><br><b>C</b><br>Clear                        | <b>1</b><br>LED No Resistor<br><br><b>2</b><br>125V Neon<br><br><b>3</b><br>250V Neon<br><br><b>4</b><br>6Vdc LED<br><br><b>5</b><br>12Vdc LED | <b>C</b><br>Chrome<br>Bezel Finish | <br>9.0<br>2.0 max<br>page 6     |          |
| <b>L</b><br><b>K</b> 2.8<br><b>H</b> 4.8<br><b>C</b> 6.3 | <b>(C) 0278 00</b><br> | <b>N</b><br><b>L</b><br><b>M</b><br><b>F</b> | <b>R</b><br>Red<br><br><b>A</b><br>Amber<br><br><b>G</b><br>Green<br><br><b>B</b><br>Blue<br>(Special Order)<br><br><b>C</b><br>Clear                        | <b>1</b><br>LED No Resistor<br><br><b>2</b><br>125V Neon<br><br><b>3</b><br>250V Neon<br><br><b>4</b><br>6Vdc LED<br><br><b>5</b><br>12Vdc LED | <b>C</b><br>Chrome<br>Bezel Finish | <br>9.0<br>2.0 max<br>page 6     |          |
| <b>L</b><br><b>K</b> 2.8<br><b>H</b> 4.8<br><b>C</b> 6.3 | <b>(C) 0276 AA</b><br> | <b>N</b><br><b>L</b><br><b>M</b><br><b>F</b> | LED<br><br><b>R</b><br>Red<br><br><b>Y</b><br>Yellow<br><br><b>G</b><br>Green<br><br><b>B</b><br>Blue                                                        | <b>6</b><br>24Vdc LED<br><br><b>7</b><br>12/14V Filament<br><br><b>8</b><br>24/ 28V Filament<br><br><b>9</b><br>125/250Vac LED                 | <b>C</b><br>Chrome<br>Bezel Finish | <br>9.5<br>0.8-2.8<br>page 6     |          |
| <b>L</b><br><b>K</b> 2.8<br><b>H</b> 4.8<br><b>C</b> 6.3 | <b>(C) 0275 00</b><br> | <b>N</b><br><b>L</b><br><b>M</b><br><b>F</b> | <b>R</b><br>Red<br><br><b>Y</b><br>Yellow<br><br><b>G</b><br>Green<br><br><b>B</b><br>Blue                                                                   | <b>6</b><br>24Vdc LED<br><br><b>7</b><br>12/14V Filament<br><br><b>8</b><br>24/ 28V Filament<br><br><b>9</b><br>125/250Vac LED                 | <b>C</b><br>Chrome<br>Bezel Finish | <br>10.0<br>12.0<br>page 6       |          |
| <b>L</b><br><b>K</b> 2.8<br><b>H</b> 4.8<br><b>C</b> 6.3 | <b>(C) 0275 00</b><br> | <b>N</b><br><b>L</b><br><b>M</b><br><b>F</b> | <b>R</b><br>Red<br><br><b>Y</b><br>Yellow<br><br><b>G</b><br>Green<br><br><b>B</b><br>Blue                                                                   | <b>6</b><br>24Vdc LED<br><br><b>7</b><br>12/14V Filament<br><br><b>8</b><br>24/ 28V Filament<br><br><b>9</b><br>125/250Vac LED                 | <b>C</b><br>Chrome<br>Bezel Finish | <br>10.0<br>11.5 max<br>page 6   |          |

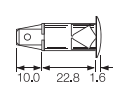
| Terminal                                                 | Type                                                                                                      | Illumination                                                                                                                                                                                                                                                                                                                                                                                 | Colour                                                                                                                                   | Voltage                                                                                                                                                                                                                                              | Options                            | Panel                                                                                                                                                                                                                                                                                                                                              | Approval                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>L</b><br><b>K</b> 2.8<br><b>H</b> 4.8<br><b>C</b> 6.3 | <b>(C) 0276 00</b><br>   | <b>N</b> <br><b>L</b> <br><b>M</b> <br><b>F</b>          | Neon & Filament<br><b>R</b><br>Red<br><b>A</b><br>Amber<br><b>G</b><br>Green<br><b>B</b><br>Blue<br>(Special Order)<br><b>C</b><br>Clear | <b>1</b><br>LED No Resistor<br><b>2</b><br>125V Neon<br><b>3</b><br>250V Neon<br><b>4</b><br>6Vdc LED<br><b>5</b><br>12Vdc LED<br><b>6</b><br>24Vdc LED<br><b>7</b><br>12/14V Filament<br><b>8</b><br>24/ 28V Filament<br><b>9</b><br>125/250Vac LED | <b>C</b><br>Chrome<br>Bezel Finish |  10.0<br> 2.8 max<br> page 6                                                              |   <br><br>  <br>                 |
| <b>L</b><br><b>K</b> 2.8<br><b>H</b> 4.8<br><b>C</b> 6.3 | <b>(C) 0277 00</b><br>   | <b>N</b> <br><b>L</b> <br><b>M</b> <br><b>F</b>          | Amber<br><b>G</b><br>Green<br><b>B</b><br>Blue<br>(Special Order)<br><b>C</b><br>Clear                                                   | <b>3</b><br>250V Neon<br><b>4</b><br>6Vdc LED<br><b>5</b><br>12Vdc LED<br><b>6</b><br>24Vdc LED<br><b>7</b><br>12/14V Filament<br><b>8</b><br>24/ 28V Filament<br><b>9</b><br>125/250Vac LED                                                         | <b>C</b><br>Chrome<br>Bezel Finish |  10.0<br> 12 max<br> page 6                                                               |   <br><br>  <br>                 |
| <b>L</b><br><b>K</b> 2.8<br><b>H</b> 4.8<br><b>C</b> 6.3 | <b>(C) 0273 LL</b><br>   | <b>N</b> <br><b>L</b> <br><b>M</b> <br><b>F</b>          | Blue<br>(Special Order)<br><b>C</b><br>Clear                                                                                             | <b>4</b><br>6Vdc LED<br><b>5</b><br>12Vdc LED<br><b>6</b><br>24Vdc LED<br><b>7</b><br>12/14V Filament<br><b>8</b><br>24/ 28V Filament<br><b>9</b><br>125/250Vac LED                                                                                  | <b>C</b><br>Chrome<br>Bezel Finish |  10.0<br> 0.6-2.0<br> page 6                                                              |   <br><br>  <br>                 |
| <b>L</b><br><b>K</b> 2.8<br><b>H</b> 4.8<br><b>C</b> 6.3 | <b>(C) 2820 00</b><br>  | <b>N</b> <br><b>L</b> <br><b>M</b> <br><b>F</b>       | LED<br><b>R</b><br>Red<br><b>Y</b><br>Yellow<br><b>G</b><br>Green<br><b>B</b><br>Blue                                                    | <b>6</b><br>24Vdc LED<br><b>7</b><br>12/14V Filament<br><b>8</b><br>24/ 28V Filament<br><b>9</b><br>125/250Vac LED                                                                                                                                   | <b>C</b><br>Chrome<br>Bezel Finish |  12.0<br> 0.75-2.0<br> page 6                                                          |   <br><br>  <br>            |
| <b>L</b><br><b>K</b> 2.8<br><b>H</b> 4.8<br><b>C</b> 6.3 | <b>(C) 2821 00</b><br> | <b>N</b> <br><b>L</b> <br><b>M</b> <br><b>F</b>  | Red<br><b>Y</b><br>Yellow<br><b>G</b><br>Green<br><b>B</b><br>Blue                                                                       | <b>8</b><br>24/ 28V Filament<br><b>9</b><br>125/250Vac LED                                                                                                                                                                                           | <b>C</b><br>Chrome<br>Bezel Finish |  12.0or12.7<br> $\phi 12.0$<br>$= 0.8-2.5$<br>$\phi 12.7$<br>$= 1.1-2.5$<br> page 6 |   <br><br>  <br> |
| <b>L</b><br><b>K</b> 2.8<br><b>H</b> 4.8<br><b>C</b> 6.3 | <b>(C) 0586 00</b><br> | <b>N</b> <br><b>L</b> <br><b>M</b> <br><b>F</b>  | Green<br><b>B</b><br>Blue                                                                                                                | <b>9</b><br>125/250Vac LED                                                                                                                                                                                                                           | <b>C</b><br>Chrome<br>Bezel Finish |  12.5<br> 0.8-1.5<br> page 6                                                        |   <br><br>  <br> |

## Dimensions

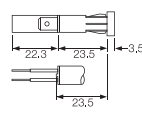
### (L) 0569 AW



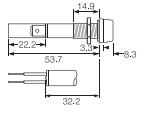
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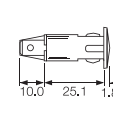
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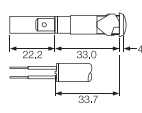
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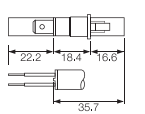
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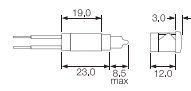
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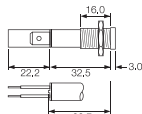
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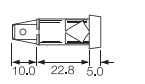
### (C) 0276 00



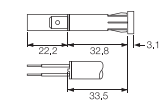
### (C) 2821 00



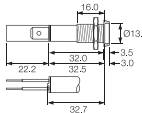
### (C) 0276 AA



### (C) 0277 00



### (C) 0586 00



# Indicator Lights

Neon, LED and Filament Lamp



## Key Features

- Neon, LED, mains LED or filament lamp
- Bezel sizes from 6.7 to 16.3mm diameter
- Red, amber, green and clear lenses
- Red, yellow, green, blue and white LEDs
- Wide choice of styles

## Colours and voltages:

### NEON



Available with Red, Amber, Green or Clear lenses  
100/130V (marked 110V), 200/250V (marked 230V)

### DC LED



Red, Yellow, Green, Blue, White  
2.0/2.2V  
Resistors for other voltages available.

### AC MAINS LED



Red, Yellow, Green, Blue, White  
110-230V ac operation.

### FILAMENT



Available with Red, Amber, Green, Clear or Blue lenses  
6V, 12/14V, 24/28V.

| Terminal                                                 | Type                   | Illumination                                 | Colour                                                                                                                                                       | Voltage                                                                                                                                                                                                                                                                              | Options                            | Panel                                                                                                                                                                                                                                                                 | Approval |
|----------------------------------------------------------|------------------------|----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| <b>L</b><br><b>K</b> 2.8<br><b>H</b> 4.8<br><b>C</b> 6.3 | <b>(C) 2870 00</b><br> | <b>N</b><br><b>L</b><br><b>M</b><br><b>F</b> | Neon & Filament<br><br><b>R</b><br>Red<br><br><b>A</b><br>Amber<br><br><b>G</b><br>Green<br><br><b>B</b><br>Blue<br>(Special Order)<br><br><b>C</b><br>Clear | <b>1</b><br>LED No Resistor<br><br><b>2</b><br>125V Neon<br><br><b>3</b><br>250V Neon<br><br><b>4</b><br>6Vdc LED<br><br><b>5</b><br>12Vdc LED<br><br><b>6</b><br>24Vdc LED<br><br><b>7</b><br>12/14V Filament<br><br><b>8</b><br>24/ 28V Filament<br><br><b>9</b><br>125/250Vac LED | <b>C</b><br>Chrome<br>Bezel Finish | <br>12.7<br><br>0.75-2.0<br><br>Page 6<br><br><br>12.7<br><br>0.8-1.5<br><br>page 6<br><br><br>12.7<br><br>9.5<br><br>page 6<br><br><br>12.7<br><br>12.0max<br><br>page 6<br><br><br>12.7<br><br>1.14 max<br><br>page 6<br><br><br>12.7<br><br>19.0 max<br><br>page 6 |          |
| <b>L</b><br><b>K</b> 2.8<br><b>H</b> 4.8<br><b>C</b> 6.3 | <b>(C) 0589 00</b><br> | <b>N</b><br><b>L</b><br><b>M</b><br><b>F</b> | Amber<br><br><b>G</b><br>Green<br><br><b>B</b><br>Blue<br>(Special Order)<br><br><b>C</b><br>Clear                                                           | <b>1</b><br>LED No Resistor<br><br><b>2</b><br>125V Neon<br><br><b>3</b><br>250V Neon<br><br><b>4</b><br>6Vdc LED<br><br><b>5</b><br>12Vdc LED<br><br><b>6</b><br>24Vdc LED<br><br><b>7</b><br>12/14V Filament<br><br><b>8</b><br>24/ 28V Filament<br><br><b>9</b><br>125/250Vac LED | <b>C</b><br>Chrome<br>Bezel Finish | <br>12.7<br><br>0.75-2.0<br><br>Page 6<br><br><br>12.7<br><br>0.8-1.5<br><br>page 6<br><br><br>12.7<br><br>9.5<br><br>page 6<br><br><br>12.7<br><br>12.0max<br><br>page 6<br><br><br>12.7<br><br>1.14 max<br><br>page 6<br><br><br>12.7<br><br>19.0 max<br><br>page 6 |          |
| <b>L</b><br><b>K</b> 2.8<br><b>H</b> 4.8<br><b>C</b> 6.3 | <b>L 0081 00</b><br>   | <b>N</b><br><b>L</b><br><b>M</b><br><b>F</b> | Blue<br>(Special Order)<br><br><b>C</b><br>Clear                                                                                                             | <b>1</b><br>LED No Resistor<br><br><b>2</b><br>125V Neon<br><br><b>3</b><br>250V Neon<br><br><b>4</b><br>6Vdc LED<br><br><b>5</b><br>12Vdc LED<br><br><b>6</b><br>24Vdc LED<br><br><b>7</b><br>12/14V Filament<br><br><b>8</b><br>24/ 28V Filament<br><br><b>9</b><br>125/250Vac LED | <b>C</b><br>Chrome<br>Bezel Finish | <br>12.7<br><br>0.75-2.0<br><br>Page 6<br><br><br>12.7<br><br>0.8-1.5<br><br>page 6<br><br><br>12.7<br><br>9.5<br><br>page 6<br><br><br>12.7<br><br>12.0max<br><br>page 6<br><br><br>12.7<br><br>1.14 max<br><br>page 6<br><br><br>12.7<br><br>19.0 max<br><br>page 6 |          |
| <b>L</b><br><b>K</b> 2.8<br><b>H</b> 4.8<br><b>C</b> 6.3 | <b>(C) 0177 00</b><br> | <b>N</b><br><b>L</b><br><b>M</b><br><b>F</b> | LED<br><br><b>R</b><br>Red<br><br><b>Y</b><br>Yellow<br><br><b>G</b><br>Green<br><br><b>B</b><br>Blue                                                        | <b>1</b><br>LED No Resistor<br><br><b>2</b><br>125V Neon<br><br><b>3</b><br>250V Neon<br><br><b>4</b><br>6Vdc LED<br><br><b>5</b><br>12Vdc LED<br><br><b>6</b><br>24Vdc LED<br><br><b>7</b><br>12/14V Filament<br><br><b>8</b><br>24/ 28V Filament<br><br><b>9</b><br>125/250Vac LED | <b>C</b><br>Chrome<br>Bezel Finish | <br>12.7<br><br>0.75-2.0<br><br>Page 6<br><br><br>12.7<br><br>0.8-1.5<br><br>page 6<br><br><br>12.7<br><br>9.5<br><br>page 6<br><br><br>12.7<br><br>12.0max<br><br>page 6<br><br><br>12.7<br><br>1.14 max<br><br>page 6<br><br><br>12.7<br><br>19.0 max<br><br>page 6 |          |
| <b>L</b><br><b>K</b> 2.8<br><b>H</b> 4.8<br><b>C</b> 6.3 | <b>(C) 0067 00</b><br> | <b>N</b><br><b>L</b><br><b>M</b><br><b>F</b> | Red<br><br><b>Y</b><br>Yellow<br><br><b>G</b><br>Green<br><br><b>B</b><br>Blue                                                                               | <b>1</b><br>LED No Resistor<br><br><b>2</b><br>125V Neon<br><br><b>3</b><br>250V Neon<br><br><b>4</b><br>6Vdc LED<br><br><b>5</b><br>12Vdc LED<br><br><b>6</b><br>24Vdc LED<br><br><b>7</b><br>12/14V Filament<br><br><b>8</b><br>24/ 28V Filament<br><br><b>9</b><br>125/250Vac LED | <b>C</b><br>Chrome<br>Bezel Finish | <br>12.7<br><br>0.75-2.0<br><br>Page 6<br><br><br>12.7<br><br>0.8-1.5<br><br>page 6<br><br><br>12.7<br><br>9.5<br><br>page 6<br><br><br>12.7<br><br>12.0max<br><br>page 6<br><br><br>12.7<br><br>1.14 max<br><br>page 6<br><br><br>12.7<br><br>19.0 max<br><br>page 6 |          |
| <b>L</b><br><b>K</b> 2.8<br><b>H</b> 4.8<br><b>C</b> 6.3 | <b>(C) 0180AA</b><br>  | <b>N</b><br><b>L</b><br><b>M</b><br><b>F</b> | Green<br><br><b>B</b><br>Blue                                                                                                                                | <b>1</b><br>LED No Resistor<br><br><b>2</b><br>125V Neon<br><br><b>3</b><br>250V Neon<br><br><b>4</b><br>6Vdc LED<br><br><b>5</b><br>12Vdc LED<br><br><b>6</b><br>24Vdc LED<br><br><b>7</b><br>12/14V Filament<br><br><b>8</b><br>24/ 28V Filament<br><br><b>9</b><br>125/250Vac LED | <b>C</b><br>Chrome<br>Bezel Finish | <br>12.7<br><br>0.75-2.0<br><br>Page 6<br><br><br>12.7<br><br>0.8-1.5<br><br>page 6<br><br><br>12.7<br><br>9.5<br><br>page 6<br><br><br>12.7<br><br>12.0max<br><br>page 6<br><br><br>12.7<br><br>1.14 max<br><br>page 6<br><br><br>12.7<br><br>19.0 max<br><br>page 6 |          |

# Indicator Lights

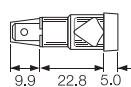
Neon, LED and Filament Lamp



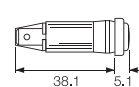
| Terminal                                                 | Type                   | Illumination                                 | Colour                                                                                                                                                                                                                                                                    | Voltage                                                                                                                                                                                                                                                                              | Options                            | Panel                                                                                                               | Approval                             |
|----------------------------------------------------------|------------------------|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|---------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| <b>L</b><br><b>C</b> 6.3                                 | <b>(C) 0180BB</b><br>  | <b>N</b><br><b>L</b><br><b>F</b>             | Neon & Filament<br><br><b>R</b><br>Red<br><br><b>A</b><br>Amber<br><br><b>G</b><br>Green<br><br><b>B</b><br>Blue<br>(Special Order)<br><br><b>C</b><br>Clear<br><br>LED<br><br><b>R</b><br>Red<br><br><b>Y</b><br>Yellow<br><br><b>G</b><br>Green<br><br><b>B</b><br>Blue | <b>1</b><br>LED No Resistor<br><br><b>2</b><br>125V Neon<br><br><b>3</b><br>250V Neon<br><br><b>4</b><br>6Vdc LED<br><br><b>5</b><br>12Vdc LED<br><br><b>6</b><br>24Vdc LED<br><br><b>7</b><br>12/14V Filament<br><br><b>8</b><br>24/ 28V Filament<br><br><b>9</b><br>125/250Vac LED | <b>C</b><br>Chrome<br>Bezel Finish | <br>13.5<br><br>0.9-1.14<br>page 6<br><br><br>14.0<br><br>2.5 max<br>page 6<br><br><br>19.0<br><br>4.0max<br>page 6 | <br><br><br><br><br><br><br><br><br> |
| <b>L</b><br><b>K</b> 2.8<br><b>H</b> 4.8<br><b>C</b> 6.3 | <b>(C) 0579 00</b><br> | <b>N</b><br><b>L</b><br><b>M</b><br><b>F</b> |                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                      |                                    |                                                                                                                     |                                      |
| <b>C</b> 6.3                                             | <b>(C) 1092</b><br>    | <b>N</b>                                     |                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                      |                                    |                                                                                                                     |                                      |

## Dimensions

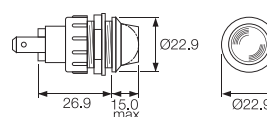
**(C) 2870 00**



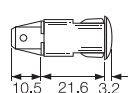
**(C) 0067 00**



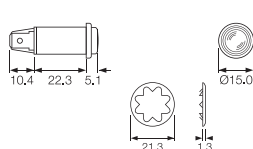
**(C) 1092**



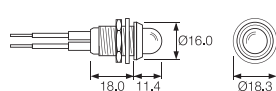
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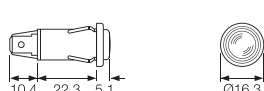
**(C) 0180AA**



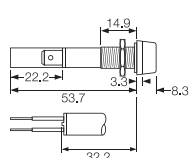
**L 0081 00**



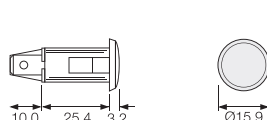
**(C) 0180BB**



**(C) 0177 00**



**(C) 0579 00**



# Indicator Lights

Neon, LED and Filament Lamp



## Key Features

- Neon, LED, mains LED or filament lamp
- Bezel sizes from 6.7 to 16.3mm diameter
- Red, amber, green and clear lenses
- Red, yellow, green, blue and white LEDs
- Wide choice of styles

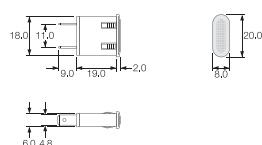
## Colours and voltages:

| NEON                                                                                               | DC LED                                                                                 | AC MAINS LED                                              | FILAMENT                                                                      |
|----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------------|
|                                                                                                    |                                                                                        |                                                           |                                                                               |
| Available with Red, Amber, Green or Clear lenses<br>100/130V (marked 110V), 200/250V (marked 230V) | Red, Yellow, Green, Blue, White<br>2.0/2.2V<br>Resistors for other voltages available. | Red, Yellow, Green, Blue, White<br>110-230V ac operation. | Available with Red, Amber, Green, Clear or Blue lenses<br>6V, 12/14V, 24/28V. |

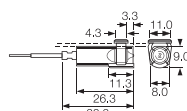
| Terminal     | Type                 | Illumination         | Colour                                                                                                                                                       | Voltage                                                                                                                                                                     | Options                            | Panel                   | Approval |
|--------------|----------------------|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|-------------------------|----------|
| <b>H</b> 4.8 | <b>H 0581 AY</b><br> | <b>N</b><br><b>F</b> | Neon & Filament<br><br><b>R</b><br>Red<br><br><b>A</b><br>Amber<br><br><b>G</b><br>Green<br><br><b>B</b><br>Blue<br>(Special Order)<br><br><b>C</b><br>Clear | <b>1</b><br>LED No Resistor<br><br><b>2</b><br>125V Neon<br><br><b>3</b><br>250V Neon<br><br><b>4</b><br>6Vdc LED<br><br><b>5</b><br>12Vdc LED<br><br><b>6</b><br>24Vdc LED | <b>C</b><br>Chrome<br>Bezel Finish | <br>2.0-3.5<br>Page 6   |          |
| <b>L</b>     | <b>L 0234 00</b><br> | <b>N</b>             | <b>R</b><br>Red<br><br><b>Y</b><br>Yellow<br><br><b>G</b><br>Green<br><br><b>B</b><br>Blue                                                                   | <b>7</b><br>12/14V Filament<br><br><b>8</b><br>24/ 28V Filament<br><br><b>9</b><br>125/250Vac LED                                                                           |                                    | <br>0.71-1.62<br>page 6 |          |
| <b>L</b>     | <b>L 0233 00</b><br> | <b>N</b>             |                                                                                                                                                              |                                                                                                                                                                             |                                    | page 6                  |          |

## Dimensions

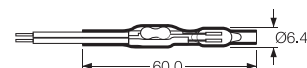
### H 0581 AY



### L 0234 00



### L 0233 00



Neon tube, resistor and flexible lead assembly, protected by "shrunk on" transparent sleeving.

## Key Features

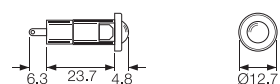
- Up to 50V
- Red, Amber, Green, Blue and Clear
- Linestra/Philinea lamp holder

## Colours and voltages:

These lampholders are suitable for up to 50V max. Bulbs will be supplied (dependent on order quantity) if a voltage is specified.  
Colours - Red, Amber, Green, (Clear & Blue, check availability).

| Terminal                                                                                         | Type                                                                                                       | Sealed             | Illumination             | Colour                             | Voltage                      | Options                         | Panel                                                                                                                                                                                                                                                                                   |
|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|--------------------|--------------------------|------------------------------------|------------------------------|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>T</b>        | <b>T0061 00 (LES)</b><br> | <b>S</b><br>Sealed | <b>N</b><br>Neon         | Neon & Filament<br><b>R</b><br>Red | <b>1</b><br>LED No Resistor  | <b>C</b><br>Chrome Bezel Finish |  9.5<br> 0.9-1.14<br> T85      |
| <b>C</b>        | <b>(C) 0277 00</b><br>   |                    | <b>L</b><br>DC LED       | <b>A</b><br>Amber                  | <b>2</b><br>125V Neon        |                                 |  12.7<br> 1.14max<br> T85      |
| <b>T</b> 6.3  | <b>(C) 0273 LL</b><br>  |                    | <b>M</b><br>Mains AC LED | <b>G</b><br>Green                  | <b>3</b><br>250V Neon        |                                 |  12.7<br> 9.6max<br> T85 |
| <b>T</b>      | <b>(C) 2820 00</b><br>  |                    | <b>F</b><br>Mains AC LED | <b>B</b><br>Blue (Special Order)   | <b>4</b><br>6Vdc LED         |                                 |  12.7<br> 9.6max<br> T85 |
| <b>S</b>      | <b>(C) 2821 00</b><br>  |                    |                          | <b>C</b><br>Clear                  | <b>5</b><br>12Vdc LED        |                                 |                                                                                                                                                                                                                                                                                         |
|                                                                                                  |                                                                                                            |                    |                          | <b>R</b><br>Red                    | <b>6</b><br>24Vdc LED        |                                 |  12.7<br> 9.6max<br> T85 |
|                                                                                                  |                                                                                                            |                    |                          | <b>Y</b><br>Yellow                 | <b>7</b><br>12/14V Filament  |                                 |                                                                                                                                                                                                                                                                                         |
|                                                                                                  |                                                                                                            |                    |                          | <b>G</b><br>Green                  | <b>8</b><br>24/ 28V Filament |                                 |                                                                                                                                                                                                                                                                                         |
|                                                                                                  |                                                                                                            |                    |                          | <b>B</b><br>Blue                   | <b>9</b><br>125/250Vac LED   |                                 |  T85                                                                                                                                                                                               |

**T0061 00 (LES)**



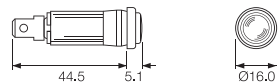
**(C) 2820 00**



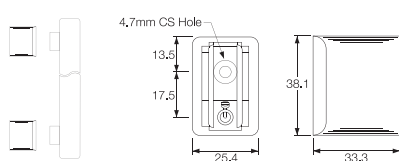
**(C) 0273 LL**



**(C) 0277 00**



**(C) 2821 00**





C1090FE ---



P1090FL ---

## Key Features

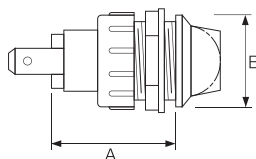
- ⬡ Up to 50V
- ⬡ MES or MBC bulb
- ⬡ Flat and domed lens
- ⬡ Brass or nylon bodies
- ⬡ Red, Amber, Green, Blue and Clear lenses

## Approvals and specifications

Bulbs will be supplied (dependant on order quantity) if a voltage is specified. These lampholders are suitable for up to 50V max.

Colours - Red, Amber, Green, (Clear & Blue, check availability).  
Brass bodies have polished chrome finish.

## Dimensions and Options



F0445 MO  
P.V.C. Insulating terminal cover.



| Terminal                        | Type                                                                                          | Colour                                                                                                              | Bulb Voltage                                                                     | Options                         | Panel                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Lens |                |               |       |       |          |      |       |      |      |          |      |       |      |      |          |      |                         |      |      |          |      |       |      |      |          |      |                         |      |      |          |      |       |      |      |                                                                                  |
|---------------------------------|-----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------------|---------------|-------|-------|----------|------|-------|------|------|----------|------|-------|------|------|----------|------|-------------------------|------|------|----------|------|-------|------|------|----------|------|-------------------------|------|------|----------|------|-------|------|------|----------------------------------------------------------------------------------|
| <b>C</b><br><br>6.3 x 0.8       | <b>1090</b><br>MES (E10)<br><br>MES (E10)                                                     | <b>R</b><br>Red<br><br><b>Y</b><br>Yellow<br><br><b>G</b><br>Green<br><br><b>B</b><br>Blue<br><br><b>C</b><br>Clear | <b>6</b><br>6V<br><br><b>12</b><br>12V<br><br><b>24</b><br>24V<br><br>Max of 50V | <b>C</b><br>Chrome Bezel Finish | <b>1090 (MES lamps)</b> <table><thead><tr><th></th><th>Panel Hole Dia</th><th>Body Material</th><th>Dim A</th><th>Dim B</th></tr></thead><tbody><tr><td><b>A</b></td><td>19.0</td><td>Brass</td><td>35.0</td><td>22.0</td></tr><tr><td><b>D</b></td><td>19.0</td><td>Brass</td><td>30.2</td><td>22.0</td></tr><tr><td><b>E</b></td><td>19.0</td><td>Nylon with chrome bezel</td><td>30.2</td><td>22.8</td></tr><tr><td><b>G</b></td><td>19.0</td><td>Brass</td><td>24.6</td><td>22.0</td></tr><tr><td><b>H</b></td><td>19.0</td><td>Nylon with chrome bezel</td><td>24.6</td><td>22.8</td></tr><tr><td><b>L</b></td><td>25.4</td><td>Brass</td><td>26.0</td><td>31.5</td></tr></tbody></table> |      | Panel Hole Dia | Body Material | Dim A | Dim B | <b>A</b> | 19.0 | Brass | 35.0 | 22.0 | <b>D</b> | 19.0 | Brass | 30.2 | 22.0 | <b>E</b> | 19.0 | Nylon with chrome bezel | 30.2 | 22.8 | <b>G</b> | 19.0 | Brass | 24.6 | 22.0 | <b>H</b> | 19.0 | Nylon with chrome bezel | 24.6 | 22.8 | <b>L</b> | 25.4 | Brass | 26.0 | 31.5 | <b>F</b><br>Flat<br><br><br><b>V</b><br>MES (E10)<br><br><br><b>L</b><br>No lens |
|                                 | Panel Hole Dia                                                                                | Body Material                                                                                                       | Dim A                                                                            | Dim B                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |      |                |               |       |       |          |      |       |      |      |          |      |       |      |      |          |      |                         |      |      |          |      |       |      |      |          |      |                         |      |      |          |      |       |      |      |                                                                                  |
| <b>A</b>                        | 19.0                                                                                          | Brass                                                                                                               | 35.0                                                                             | 22.0                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |      |                |               |       |       |          |      |       |      |      |          |      |       |      |      |          |      |                         |      |      |          |      |       |      |      |          |      |                         |      |      |          |      |       |      |      |                                                                                  |
| <b>D</b>                        | 19.0                                                                                          | Brass                                                                                                               | 30.2                                                                             | 22.0                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |      |                |               |       |       |          |      |       |      |      |          |      |       |      |      |          |      |                         |      |      |          |      |       |      |      |          |      |                         |      |      |          |      |       |      |      |                                                                                  |
| <b>E</b>                        | 19.0                                                                                          | Nylon with chrome bezel                                                                                             | 30.2                                                                             | 22.8                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |      |                |               |       |       |          |      |       |      |      |          |      |       |      |      |          |      |                         |      |      |          |      |       |      |      |          |      |                         |      |      |          |      |       |      |      |                                                                                  |
| <b>G</b>                        | 19.0                                                                                          | Brass                                                                                                               | 24.6                                                                             | 22.0                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |      |                |               |       |       |          |      |       |      |      |          |      |       |      |      |          |      |                         |      |      |          |      |       |      |      |          |      |                         |      |      |          |      |       |      |      |                                                                                  |
| <b>H</b>                        | 19.0                                                                                          | Nylon with chrome bezel                                                                                             | 24.6                                                                             | 22.8                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |      |                |               |       |       |          |      |       |      |      |          |      |       |      |      |          |      |                         |      |      |          |      |       |      |      |          |      |                         |      |      |          |      |       |      |      |                                                                                  |
| <b>L</b>                        | 25.4                                                                                          | Brass                                                                                                               | 26.0                                                                             | 31.5                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |      |                |               |       |       |          |      |       |      |      |          |      |       |      |      |          |      |                         |      |      |          |      |       |      |      |          |      |                         |      |      |          |      |       |      |      |                                                                                  |
| <b>T</b><br><br>Solder          | <b>1091</b><br>MBC (BA9s) (C and S Terminals only)<br><br>MBC (BA9s) (C and S Terminals only) |                                                                                                                     |                                                                                  |                                 | <b>1091 (MBC lamps)</b> <table><thead><tr><th></th><th>Panel Hole Dia</th><th>Body Material</th><th>Dim A</th><th>Dim B</th></tr></thead><tbody><tr><td><b>B</b></td><td>19.0</td><td>Brass</td><td>36.0</td><td>22.0</td></tr><tr><td><b>C</b></td><td>19.0</td><td>Nylon</td><td>36.6</td><td>22.0</td></tr><tr><td><b>Q</b></td><td>19.0</td><td>Nylon (Chrome twin)</td><td>36.6</td><td>22.8</td></tr><tr><td><b>M</b></td><td>25.4</td><td>Brass</td><td>38.1</td><td>31.5</td></tr></tbody></table>                                                                                                                                                                                     |      | Panel Hole Dia | Body Material | Dim A | Dim B | <b>B</b> | 19.0 | Brass | 36.0 | 22.0 | <b>C</b> | 19.0 | Nylon | 36.6 | 22.0 | <b>Q</b> | 19.0 | Nylon (Chrome twin)     | 36.6 | 22.8 | <b>M</b> | 25.4 | Brass | 38.1 | 31.5 |          |      |                         |      |      |          |      |       |      |      |                                                                                  |
|                                 | Panel Hole Dia                                                                                | Body Material                                                                                                       | Dim A                                                                            | Dim B                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |      |                |               |       |       |          |      |       |      |      |          |      |       |      |      |          |      |                         |      |      |          |      |       |      |      |          |      |                         |      |      |          |      |       |      |      |                                                                                  |
| <b>B</b>                        | 19.0                                                                                          | Brass                                                                                                               | 36.0                                                                             | 22.0                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |      |                |               |       |       |          |      |       |      |      |          |      |       |      |      |          |      |                         |      |      |          |      |       |      |      |          |      |                         |      |      |          |      |       |      |      |                                                                                  |
| <b>C</b>                        | 19.0                                                                                          | Nylon                                                                                                               | 36.6                                                                             | 22.0                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |      |                |               |       |       |          |      |       |      |      |          |      |       |      |      |          |      |                         |      |      |          |      |       |      |      |          |      |                         |      |      |          |      |       |      |      |                                                                                  |
| <b>Q</b>                        | 19.0                                                                                          | Nylon (Chrome twin)                                                                                                 | 36.6                                                                             | 22.8                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |      |                |               |       |       |          |      |       |      |      |          |      |       |      |      |          |      |                         |      |      |          |      |       |      |      |          |      |                         |      |      |          |      |       |      |      |                                                                                  |
| <b>M</b>                        | 25.4                                                                                          | Brass                                                                                                               | 38.1                                                                             | 31.5                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |      |                |               |       |       |          |      |       |      |      |          |      |       |      |      |          |      |                         |      |      |          |      |       |      |      |          |      |                         |      |      |          |      |       |      |      |                                                                                  |
| <b>S</b><br><br>Screw and Clamp |                                                                                               |                                                                                                                     |                                                                                  |                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |      |                |               |       |       |          |      |       |      |      |          |      |       |      |      |          |      |                         |      |      |          |      |       |      |      |          |      |                         |      |      |          |      |       |      |      |                                                                                  |

# LED Lamps and LED Lampholders

LED Lampholders can be supplied with or without LEDs



## Key Features

- LED lampholders
- Supplied with or without LEDs
- Black or Chrome finish

## Colours and voltages:

Colours: Red, Yellow, Green and Blue LEDs  
(High Intensity is standard. Option of extra super bright).

Voltages: LEDs are available for direct connection to 2.0/2.2V or 12Vdc

For other voltages contact sales.

| Terminal                                                                      | Type                   | Body Colour                                | LED Colour                                                                              | Voltage                                                                                                           | Panel Cutout                | Approval | Dimensions                                       |
|-------------------------------------------------------------------------------|------------------------|--------------------------------------------|-----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|-----------------------------|----------|--------------------------------------------------|
| <b>W</b> LED fitted<br><b>A</b> LED not fitted<br><b>L</b> LED & Wires fitted | <b>(W) 1048 00</b><br> | <b>B</b><br>Black<br><br><b>—</b><br>Blank | <b>R</b><br>Red<br><br><b>Y</b><br>Red<br><br><b>G</b><br>Green<br><br><b>B</b><br>Blue | <b>1</b><br>LED No Resistor<br><br><b>4</b><br>6Vdc LED<br><br><b>5</b><br>12Vdc LED<br><br><b>6</b><br>24Vdc LED | <br>6.3<br>6.3max<br>T105   |          | <br>1.5<br>12.7<br>14.5 (+/-0.36)<br>Ø7.6        |
| <b>W</b> LED fitted<br><b>A</b> LED not fitted<br><b>L</b> LED & Wires fitted | <b>(L) 1048 0A</b><br> |                                            |                                                                                         |                                                                                                                   | <br>8.0<br>5.5max<br>T105   |          | <br>2.0<br>10.0<br>14.5<br>Ø9.5                  |
| <b>W</b> LED fitted<br><b>A</b> LED not fitted<br><b>L</b> LED & Wires fitted | <b>(W) 1050 0A</b><br> |                                            |                                                                                         |                                                                                                                   | <br>8.0<br>7.0max<br>T105   |          | <br>2.9<br>12.4<br>16.9<br>Ø10.0                 |
| <b>W</b> LED fitted<br><b>L</b> LED & Wires fitted                            | <b>(L) 1035 0A</b><br> |                                            |                                                                                         |                                                                                                                   | <br>4.5<br>0.9-1.6<br>T105  | <br>     | <br>1.0<br>20.0<br>4.30<br>200.0<br>1.50<br>5.08 |
| <b>W</b> LED fitted<br><b>L</b> LED & Wires fitted                            | <b>(L) 1036 0A</b><br> |                                            |                                                                                         |                                                                                                                   | <br>6.0<br>0.9-1.6<br>T105  | <br>     | <br>1.0<br>20.0<br>5.85<br>200.0<br>4.0<br>7.9   |
| <b>W</b> LED fitted<br><b>L</b> LED & Wires fitted                            | <b>(L) 1037 0A</b><br> |                                            |                                                                                         |                                                                                                                   | <br>6.35<br>0.9-1.6<br>T105 | <br>     | <br>1.0<br>20.0<br>6.15<br>200.0<br>4.0<br>7.9   |



# LED Lamps and LED Lampholders - Sealed to IP67



## Key Features

- ⬡ IP67 front bezel sealing
- ⬡ LED lampholders
- ⬡ Supplied with or without LEDs
- ⬡ Black or Chrome finish

## Colours and voltages:

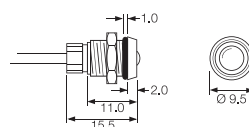
Colours:  
Red, Yellow Green and Blue LEDs.  
(High Intensity is standard. Option of extra super bright).

Voltages:  
LEDs are available for direct connection to 2.0/2.2V or 12Vdc.  
For other voltages contact sales.

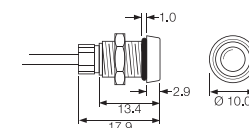
| Terminal                                                                                                           | Type                                                                                                      | LED Colour       | Voltage               | Panel                                                                                                                                                                                                                                                                             | Approval                                                                            |
|--------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|------------------|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>L</b> LED & Wires fitted<br>   | <b>(L) 1048 00</b><br>   | <b>B</b><br>Blue | <b>6</b><br>24Vdc LED |  8.0<br> 5.5max<br> T105       |    |
| <b>W</b> LED fitted<br>         | <b>(W) 1050 00</b><br> |                  |                       |  8.0<br> 7.0max<br> T105 |  |
| <b>A</b> LED not fitted<br>     |                                                                                                           |                  |                       |                                                                                                                                                                                                                                                                                   |                                                                                     |
| <b>L</b> LED & Wires fitted<br> | <b>(W) 1050 00</b><br> |                  |                       |  8.0<br> 7.0max<br> T105 |  |

## Dimensions

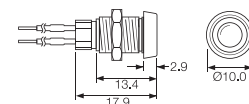
### (L) 1048 00



### (W) 1050 00



### (W) 1050 00



## Properties

### Sealing

O-ring sealing equivalent to IP67, of both the LED to bezel, and bezel to panel is available where shown.

### Polarity

The nylon base mouldings are polarity marked.

### Body Material and Finish

Chromed brass or Black oxide coated brass.

### Lampholders only

Items prefixed 'A' are supplied without LEDs.

### LED wires or PVC covered wire leads

125mm min length wires, 6.3mm standard strip.  
Alternative colours, length and strip available.

## Key Features

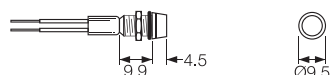
- IP67 Panel Sealing
- Supplied complete with gaskets/'O' rings
- Neon, LED, mains LED or filament lamp
- Bezel sizes from 7.6 to 22.9mm diameter
- Red, amber, green, blue and clear lenses
- Red, yellow, green, blue and white LEDs
- Wide choice of styles

## Colours and voltages:

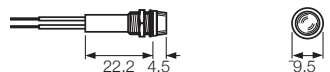
| NEON                                                                                                  | DC LED                                                                                 | AC MAINS LED                                                                       | FILAMENT                                                                            |
|-------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                      |       |  |  |
| Available with Red, Amber, Green or Clear lenses<br>100/130V (marked 110V),<br>200/250V (marked 230V) | Red, Yellow, Green, Blue, White<br>2.0/2.2V<br>Resistors for other voltages available. | Red, Yellow, Green, Blue, White<br>110-230V ac operation.                          | Available with Red, Amber, Green, Clear or Blue lenses<br>6V, 12/14V, 24/28V.       |

| Terminal                                                                                                                                                                                                                                                                                                                                                                                                 | Type                                                                                                       | Sealed             | Illumination                                                                                                                                                                                                                                                                                                                                                                                 | Colour                                                                                              | Voltage                                                                                                            | Option                          | Panel Cutout                                                                                                                                                                                 | Approval                                                                              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| <b>L</b>                                                                                                                                                                                                                                                                                                                | <b>(L) 1041 OS</b><br>    | <b>S</b><br>Sealed | <b>N</b> <br><b>L</b> <br><b>M</b> <br><b>F</b>          | <b>R</b><br>Red<br><b>A</b><br>Amber                                                                | <b>1</b><br>LED No Resistor<br><b>2</b><br>125V Neon                                                               | <b>C</b><br>Chrome Bezel Finish |  6.3<br> 5.3max        |    |
| <b>L</b>                                                                                                                                                                                                                                                                                                               | <b>(L) 0245 OS</b><br>  |                    | <b>N</b> <br><b>L</b> <br><b>M</b> <br><b>F</b>   | <b>G</b><br>Green<br><b>B</b><br>Blue (Special)                                                     | <b>3</b><br>250V Neon<br><b>4</b><br>6Vdc LED<br><b>5</b><br>12Vdc LED                                             |                                 |  7.1<br> 4.6max      |    |
| <b>L</b> <br><b>C</b> 6.3 <br><b>K</b> 2.8 <br><b>H</b> 4.8  | <b>(C) 0275 OS</b><br>  |                    | <b>N</b> <br><b>L</b> <br><b>M</b> <br><b>F</b>  | <b>C</b><br>Clear<br><b>LED</b>                                                                     | <b>6</b><br>24Vdc LED<br><b>7</b><br>12/14V Filament<br><b>8</b><br>24/ 28V Filament<br><b>9</b><br>125/250Vac LED |                                 |  10.0<br> 11.15max |  |
| <b>L</b> <br><b>C</b> 6.3 <br><b>K</b> 2.8 <br><b>H</b> 4.8  | <b>(C) 0277 OS</b><br>  |                    | <b>N</b> <br><b>L</b> <br><b>M</b> <br><b>F</b>  | <b>R</b><br>Red<br><b>Y</b><br>Yellow<br><b>G</b><br>Green<br><b>B</b><br>Blue<br><b>W</b><br>White |                                                                                                                    |                                 |  10.0<br> 11.15max |  |
| <b>L</b> 6.3 <br><b>C</b> 4.8 <br><b>K</b> 2.8 <br><b>H</b>  | <b>(C) 0177 OS</b><br>  |                    | <b>N</b> <br><b>L</b> <br><b>M</b> <br><b>F</b>  |                                                                                                     |                                                                                                                    |                                 |  12.7<br> 11.15max |  |
| <b>L</b> 6.3                                                                                                                                                                                                                                                                                                          | <b>(C) 1092 FFS</b><br> |                    | <b>N</b>                                                                                                                                                                                                                                                                                                  |                                                                                                     |                                                                                                                    |                                 |  19.0<br> 4.0 max  |  |

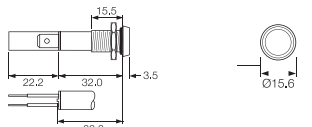
(L) 1041 OS



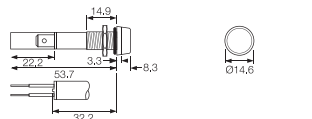
(L) 0245 OS



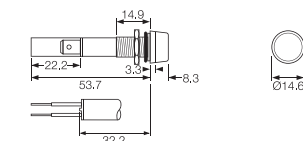
(C) 0275 OS



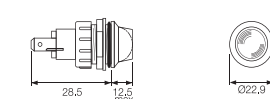
(C) 0277 OS



(C) 0177 OS



(C) 1092 FFS



# Low Voltage Lamp Holders - Sealed to IP67



## Key Features

- ⊞ IP67 Panel Sealing
- ⊞ Supplied complete with gaskets/'O' rings
- ⊞ Neon, LED, mains LED or filament lamp
- ⊞ Bezel sizes from 7.6 to 22.9mm diameter
- ⊞ Red, amber, green, blue and clear lenses
- ⊞ Red, yellow, green, blue and white LEDs

## Colours and voltages:

These lampholders are suitable for up to 50V max.  
Bulbs will be supplied (dependent on order quantity) if a voltage is specified.  
Colours - Red, Amber, Green, (Clear & Blue, check availability).

| Terminal     | Type                                                                                        | Sealed             | Colour                                              | Bulb Voltage                           | Options                         | Panel                 | Approvals | Dimensions |
|--------------|---------------------------------------------------------------------------------------------|--------------------|-----------------------------------------------------|----------------------------------------|---------------------------------|-----------------------|-----------|------------|
| <b>C</b> 6.3 | <b>C1090 FPS (MES)</b><br>                                                                  | <b>S</b><br>Sealed | <b>R</b><br>Red<br><br><b>A</b><br>Amber            | <b>6</b><br>6V<br><br><b>12</b><br>12V | <b>C</b><br>Chrome Bezel Finish | 19.0<br>4.0max<br>T85 |           |            |
| <b>C</b> 6.3 | <b>C1091 FQS (MBC)</b><br>                                                                  |                    | <b>G</b><br>Green<br><br><b>B</b><br>Blue (Special) | <b>24</b><br>24V                       |                                 | 7.1<br>4.6max         |           |            |
| <b>T</b>     | <b>T0062 AOS (Midget flange)</b><br>Chrome bezel<br><b>T0063 AOS (LES) Chrome bezel</b><br> |                    | <b>C</b><br>Clear                                   |                                        |                                 | 10.0<br>11.15max      |           | <br>       |
| <b>T</b>     | <b>T0062 MOS (LES &amp; Midget flange)</b><br><b>T0063 MOS (LES)</b><br>                    |                    |                                                     |                                        |                                 | 10.0<br>11.15max      |           | <br>       |

**F0445 MO**  
P.V.C. Insulating terminal cover.  
For use with C1090 & C1091



## Terms and Conditions of Sale

All orders are accepted subject to our Standard Terms & Conditions. Copies of these are available:  
[www.elektron-technology.com/terms/](http://www.elektron-technology.com/terms/)

## Health & Safety

Bulgin proprietary components are designed, manufactured, assessed and tested to comply with good commercial quality and engineering standards. They are safe and reliable in use within the vast majority of normal environments. In the interest of safety, application in certain extreme destructive or unsuitable environments must be avoided.

The following restrictions are given as guidance:

- External or wet areas (exposed to rain or spray), except where designated "Sealed".
- Atmospheres designated as "explosive", except where designated "Gas Tight" or "Explosion Proof".
- Highly corrosive atmospheres or subject to contamination by corrosive chemicals.  
(Avoid the use of corrosive acid soldering flux. Use an approved Electrical Grade).
- Atmospheres containing a high density of abrasive dust (mechanically operated components).
- Contamination with Silicone or Silicone Compounds (switches).
- Areas or levels unprotected from severe impact by heavy bodies moving in close proximity - (panel mounted components).
- Extremes of temperatures, beyond the specified limits.
- Electric supply voltage or load current above the published maximum ratings.

## General

To ensure electrical safety as far as is reasonably practical, these products should be properly applied, installed and maintained by or under the supervision of competent persons in accordance with good engineering practice.

## Dimensions

All dimensions are in millimetres (mm) unless otherwise stated.

## The CE Marking Directive

Equipment bearing the CE mark is allowed free circulation throughout Europe. The products in this catalogue, when installed correctly, comply with the CE requirements where it relates to them.

## The Low Voltage Directive

The Low Voltage Directive 2006/95/EC seeks to ensure that electrical equipment within certain limits both provides a high level of protection for European citizens and enjoys a single market in the European Union. Where applicable, Bulgin products comply with the requirements of this directive.

## RoHS

These European Directives introduced environmental responsibilities for electrical and electronics equipment manufacturers. The RoHS (Restriction of use of certain Hazardous Substances) regulation (Directive 2002/95/EC) came into force July 2006. The WEEE (Waste Electrical and Electronic Equipment) regulation (Directive 2002/96/EC), came into force January 2007. The RoHS directive effectively bans the use of certain chemicals, these are defined as:

- Lead
- Cadmium
- Mercury
- Hexavalent Chromium
- Polybrominated Biphenyl (PBB) – flame retardant
- Polybrominated Diphenyl Ether (PBDE) – flame retardant (including Deca BDE)

Action has been taken to ensure all standard products meet the requirements of this directive. All packing carries RoHS compliance information as conformation.

## REACH

REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals) is the new system for controlling chemicals in Europe and became law in the UK on 1 June 2007. Elektron Technology as a manufacturer of articles, are reliant on our supply chain to ensure that the substances/articles we use, are in compliance with the EC1907/2006, REACH Regulations.

Our articles and their packaging, based on our knowledge at this point, do not contain any of the 15 substances on the SVHC Candidate List, dated 28th October 2008, nor any of the 14 substances added to the SVHC Candidate List, dated 13th January 2010, nor Acrylamide added to the SVHC Candidate List, dated 30th March 2010, according to article 59 (1, 10) of Regulation (EC) No. 1907/2006 (REACH), in a concentration above 0.1% weight by weight.

If this situation changes we confirm that this information will be passed through the supply chain in a timely manner.

### United Kingdom



### Denmark



### South Africa



### BS EN ISO 9001:2000



### Europe



### Sweden



### Austria



### Finland



### Switzerland



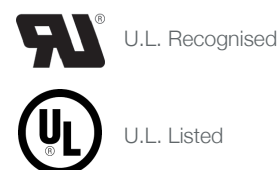
### Australia



### Germany



### U.S.A.



### Belgium



### Holland



### Russia



### Canada



### Italy



### China



### Norway



# Comparison Chart

Metric to AWG wire sizes



| AWG | Cross Sectional Area in mm <sup>2</sup> | Closest standard equivalent in mm <sup>2</sup> |
|-----|-----------------------------------------|------------------------------------------------|
| 30  | 0.0503                                  | 0.05                                           |
| 29  | 0.0646                                  | -                                              |
| 28  | 0.0804                                  | -                                              |
| 27  | 0.102                                   | 0.1                                            |
| 26  | 0.128                                   | 0.14                                           |
| 25  | 0.163                                   | -                                              |
| 24  | 0.205                                   | 0.2                                            |
| 23  | 0.259                                   | 0.25                                           |
| 22  | 0.325                                   | -                                              |
| 21  | 0.412                                   | -                                              |
| 20  | 0.519                                   | 0.5                                            |
| 19  | 0.653                                   | -                                              |
| 18  | 0.823                                   | 0.75                                           |
| 17  | 1.04                                    | 1                                              |
| 16  | 1.31                                    | -                                              |
| 15  | 1.65                                    | 1.5                                            |
| 14  | 2.08                                    | -                                              |
| 13  | 2.63                                    | 2.5                                            |
| 12  | 3.13                                    | -                                              |
| 11  | 4.15                                    | 4                                              |
| 10  | 5.27                                    | -                                              |
| 9   | 6.62                                    | 6                                              |
| 8   | 8.35                                    | -                                              |
| 7   | 10.6                                    | 10                                             |
| 6   | 13.3                                    | -                                              |
| 5   | 16.8                                    | 16                                             |
| 4   | 21.2                                    | -                                              |
| 3   | 26.7                                    | 25                                             |
| 2   | 33.6                                    | 35                                             |
| 1   | 42.4                                    | -                                              |
| 0   | 53.4                                    | 50                                             |
| 2/0 | 67.5                                    | 70                                             |
| 3/0 | 85                                      | 95                                             |
| 4/0 | 107.2                                   | 120                                            |
| 5/0 | 135.1                                   | 150                                            |
| 6/0 | 170.3                                   | 185                                            |

## IP Ratings Guide

The IP classification system designates the degree of protection provide by an enclosure against solid objects or water ingress. Table I shows degrees of protection against solid objects. Table II shows degrees of protection against water.

|            |         |         |
|------------|---------|---------|
| IP / X / X |         |         |
| IP Rating  | Table 1 | Table 2 |

**Table 1 (1st characteristic numeral)**  
Degree of Protection against solid objects

| Digit |                                                                                   |
|-------|-----------------------------------------------------------------------------------|
| 0     | Non-protected                                                                     |
| 1     | Protected against a solid object greater than 50mm, such as a hand.               |
| 2     | Protected against a solid object greater than 12.5mm, such as a finger.           |
| 3     | Protected against a solid object greater than 2.5mm, such as wire or a tool.      |
| 4     | Protected against a solid object greater than 1.0mm, such as wire or thin strips. |
| 5     | Dust-protected. Prevents ingress of dust sufficient to cause harm.                |
| 6     | Dust tight. No ingress of dust.                                                   |

Degree of protection to - DIN 40050-9

**Table 2 (2nd characteristic numeral)**  
Degree of Protection against water

| Digit |                                                                                                    |
|-------|----------------------------------------------------------------------------------------------------|
| 0     | Non-protected                                                                                      |
| 1     | Protected against dripping water.                                                                  |
| 2     | Protected against dripping water when tilted up to 15°.                                            |
| 3     | Protected against spraying water at an angle of up to 60°.                                         |
| 4     | Protected against splashing water from any direction.                                              |
| 5     | Protected against jets of water from any direction.                                                |
| 6     | Protected against heavy seas or powerful jets of water. Prevents ingress sufficient to cause harm. |
| 7     | Protected against the effects of temporary immersion in water.                                     |
| 8     | Protected against the effects of continuous immersion in water.                                    |
| 69K   | Protected against very high pressure, high temperature wash-down test.                             |

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