

Amphenol®

**TERRAPIN**

Miniature Rugged Connector Series



## TERRAPIN

### Miniature Rugged Connector Series

**Intended for harsh environment applications and used extensively in soldier communications, Amphenol Terrapin is a miniature series of circular push-pull connectors. Within a rugged shell design Terrapin offers superior EMC performance and high environmental sealing to IP68. Resilient in severe battlefield situations the RoHS compliant black-silver plating is both low-lustre and corrosion resistant. Featuring an optional locking mechanism, multiple shell sizes with up to 37 contacts and suitability for overmoulding, Terrapin is the preferred choice for miniature connectors in military and other harsh environment applications.**

Terrapin shells are machined from brass giving an increased number of mating cycles and higher degree of robustness over traditional aluminium connectors. Five different keying options are available to prevent mis-mating; N, A, B, C and D. Standard plating is non-reflective black-silver, alternative plating finishes are available upon request.

Terrapin is available in two different styles of mating; either Snatch, being a break-away connector with no moving parts, or Latch, which has an additional coupling ring allowing connections to be locked together. The same plug can be mated to either snatch or latch receptacles. Both styles of product are waterproof to IP68 in both their mated and unmated conditions.

Amphenol offer a full range of cable harness solutions with standard or customised overmoulding. Alternatively,

for field termination, both integral and threaded backshell connectors can be terminated with screen retention straps and heatshrink boots giving full 360° screening.

The customised design specification of Terrapin lends itself to a variety of applications. The high degree of sealing offered by Terrapin makes it perfect for Unmanned Ground Sensors and Surveillance equipment. Whatever the application, Terrapin offers space savings and improved durability over traditional interconnect products. Other applications include first responder and soldier mounted communication applications such as radios, headsets and GPS units, Terrapin is also suitable for Gigabit Ethernet and USB 2.0 and used widely on Computer Systems, LAN Switches and Routers.

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# Terrapin terminology

L1T



Body  
Backshell  
Crimp ferrule

L1K



Coupling ring  
Integral backshell

01K



Integral backshell for  
direct screen termination

# Terrapin mating options

Chassis Mount Plug SCE2-B-76A

The same chassis mount plug will mate with both  
snatch and latch receptacles



Snatch Inline Receptacle SCE2-B-01K



Latch Inline Receptacle SCE2-B-L1K

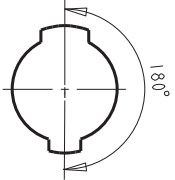
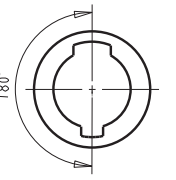
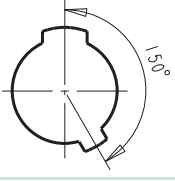
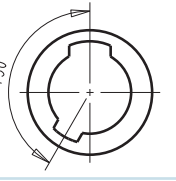
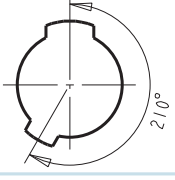
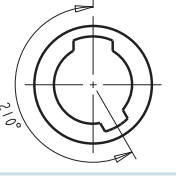
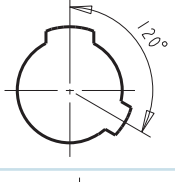
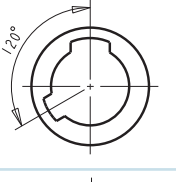
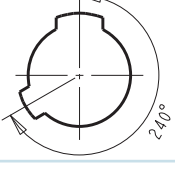
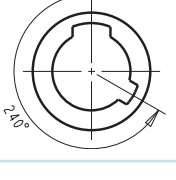


## Terrapin part numbering

Example: **SCE2-B-76A06-07SN-002** | (985) for optional grounding spring in L1K and L1T | (981) castellated panel nut

| SCE2-             | B-             | XXX                                                                                                                                                                 | XX-            | XX                                                                                                                                    | -X                                       | X-                                                                        | XXX                                                                          |
|-------------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|---------------------------------------------------------------------------|------------------------------------------------------------------------------|
| Series identifier | Plating finish | Style<br>Plugs<br>B = Brass with Black<br>Silver (RoHs)<br>ZN = Aluminium with Black Zinc<br>Nickel (RoHs)<br>Receptacles<br>01K<br>L1K<br>01T<br>L1T<br>07A<br>71A | Shell size and | number of contacts<br>06-07<br>07-10A<br>07-12<br>07-14<br>08-19<br>09-26<br>10-37<br>High Density:<br>06-09<br>07-19<br>(See page 7) | Contact style<br>P = Pins<br>S = Sockets | Key orientation<br>N = Normal<br>A<br>B<br>C<br>D<br>(See diagrams below) | Variant code<br>001<br>PC Tails<br>002<br>Solder Buckets<br>003<br>Backshell |

## Terrapin plug and receptacle keyway orientation

| Keyway orientation letter | PLUG keyway orientation                                                             | RECEPTACLE keyway orientation                                                       |
|---------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>N</b>                  |  |  |
| <b>A</b>                  |  |  |
| <b>B</b>                  |  |  |
| <b>C</b>                  |  |  |
| <b>D</b>                  |  |  |

## Terrapin performance information

| Test/parameter                        | Description                                 |
|---------------------------------------|---------------------------------------------|
| <b>Electrical</b>                     |                                             |
| Current Rating                        | 28 AWG contacts: 1.5A d.c.                  |
|                                       | 23 AWG contacts: 3A d.c.                    |
|                                       | 20 AWG contacts: 7.5A d.c.                  |
| Shell to Shell Continuity             | 10mΩ max (screened)                         |
| Contact Resistance                    | 5mΩ initial                                 |
|                                       | 10mΩ maximum                                |
| Insulation Resistance                 | 1000MΩ minimum, production tested to 500MΩ* |
| Working Voltage                       | AC (RMS) 400V contact dependant             |
| Dielectric Withstanding Voltage       | 2mA maximum leakage                         |
| <b>Technical</b>                      |                                             |
| Mating Durability                     | 2000+ cycles                                |
| Backshell Recommended Torque          | 19.914 lb.f.in / 2.25Nm                     |
| Panel Nut Recommended Torque          | 19.914 lb.f.in / 2.25Nm                     |
| Non-magnetic                          | Yes                                         |
| <b>Environmental</b>                  |                                             |
| Operating Temperature Range           | -55°C to +125°C                             |
| Temperature Endurance                 | 250 hours +125°C                            |
| Sealing (mated and unmated)           | IP68, 1 hour at 2 metres*                   |
| Air Leakage                           | Less than 1cc per hour                      |
| Salt Spray                            | 1000 hours                                  |
| Altitude Immersion                    | 70,000 Feet                                 |
| RoHS Compliant                        | Yes                                         |
| Suitable for RoHS compliant Soldering | Yes                                         |

\*Consult the factory if greater rating is required

Terrapin insert availability View shown for reference / View from rear of plug\*

Shell size

| 06    | 07     | 08    | 09    | 10    |
|-------|--------|-------|-------|-------|
| 06-07 | 07-10A | 08-19 | 09-26 | 10-37 |

06-07

07-12

07-14

07-19

06-09

07-12

07-14

07-19

23AWG contacts

20AWG contacts

28 AWG contacts

\*View from rear of receptacle is mirror image of above.

TERRAPIN SERIES 7

Terrapin insert availability

## NEW High Density Terrapin



### Key Features

- Higher density planform arrangements
- Reduced contact pitch
- Contact size reduced from 23AWG to 28AWG
- Up to 1.5A d.c.
- Two HD planform options; #06-09 or #07-19 giving two extra contacts in shell size #06 and five extra contacts in a shell size #07
- Ideal for low current applications with footprint constraints

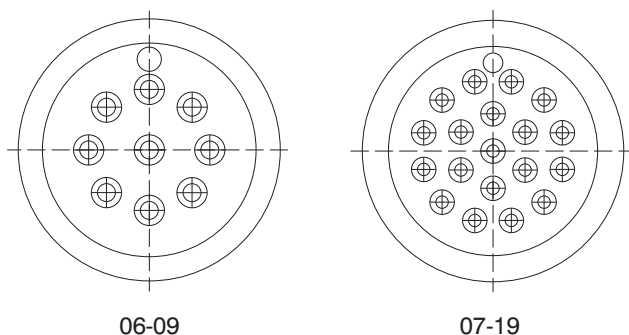
**Two new high density planforms of Terrapin connector have been designed specifically to carry more signals in a smaller package than ever before.**

Both the shell size #06 and #07 Terrapin connectors are now offered with a fully populated high density insert. The new higher density inserts feature a smaller 28AWG contact compared to the standard 23AWG contacts used throughout the standard product range.

The shell size #06 Terrapin shell, previously housing seven size 23AWG contacts is now available with nine size 28AWG contacts and the shell size #07 Terrapin shell, previously having a maximum of fourteen size 23AWG contacts is now available with 19 contacts.

The High Density (HD) Terrapin connectors enable additional data lines compared to the standard product and so are perfect for those applications where space is at a premium.

The new HD Terrapin connectors are some of the first to be built using the latest robotic equipment purchased by Amphenol Ltd in response to increasing customer demand.



### How to order

Simply choose 06-09 or 07-19 planform arrangement from page 7 e.g. **SCE2-B-76A06-09SN-001**

## NEW Aluminium Terrapin – 50% Lighter



### Key Features

- Weight reduction
- Up to 50% lighter
- Aluminium Shell
- RoHS Black Zinc Nickel Plating
- Temperature range  $-55^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$
- IP68 sealing as standard
- 500hrs salt spray
- Ideal for handheld equipment or weight critical applications

**Amphenol's Terrapin connector series is now available in a new lightweight Aluminium option. Terrapin connectors have long been used in military communications equipment so this new extension to the product range is perfectly suited not only to weight critical soldier system applications but also industrial applications such as hand-held instrumentation.**

The entire Terrapin product range is now available in this new lightweight Aluminium shell material and finished in the latest RoHS compliant, Cadmium Free, Black Zinc Nickel plating finish. Typical weight savings are as much as 50% compared to standard Terrapin connectors made from Brass.

All popular performance features and high specifications of the original Terrapin product range have been retained, i.e. IP68 sealing in mated and unmated conditions, planforms up to 37 contacts, integral backshell for low cost overmoulding and of course the unique mating mechanism which allows the same plug to mate with either break-away or locking receptacles.

The new Lightweight Terrapin is fully intermateable and backwards compatible with original Terrapin connectors.



Aluminium Black Zinc Nickel



Brass Black Silver

### How to order

Simply replace "B" in connector part number with "ZN" e.g. **SCE2-ZN-76A06-07SN-001**

## NEW Micro-USB Terrapin



### Key Features

- Industry standard Micro-USB interface
- High Speed USB 2.0 specification
- Backshell for strain-relief and screen termination
- Miniature footprint <16mmØ
- Intermateable with standard COTS Micro-USB plugs
- Ideal for ruggedisation of devices utilising the USB 2.0 protocol

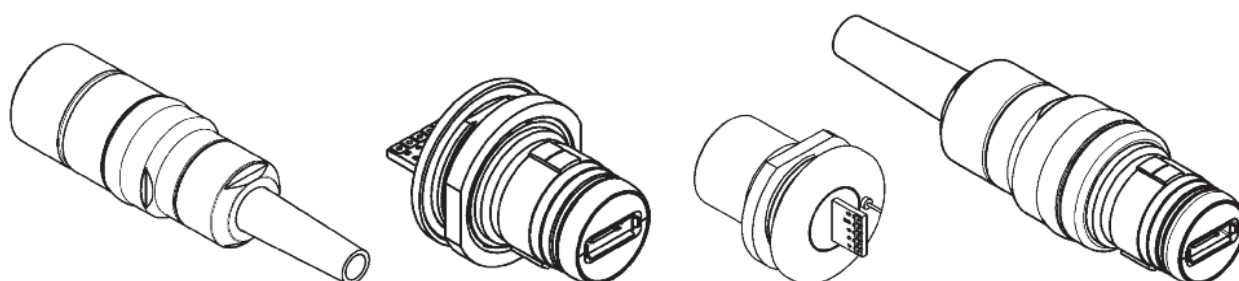
**Amphenol's Terrapin connector series is now offered with a Micro-USB interface designed especially for harsh environment communication systems. This new product development combines the benefits of a rugged and IP68 sealed connector with the recognised technology of Micro-USB.**

Micro-USB technology, widely used on equipments such as PDAs and Smartphones, provides total mobile interconnectivity by enabling portable devices to communicate directly with each other without the need for a host computer. By incorporating Micro-USB technology into the renowned Terrapin connector Amphenol Ltd can offer advantages of increased durability and reliability for USB data transmission in harsh environment applications.

The shell design of the Terrapin Series ensures blind mating of receptacle to plug and IP68 sealing in both mated and un-mated conditions. Available in various RoHS compliant plating finishes Terrapin Micro-USB connectors are suitable for both military and industrial applications.

Jam nut style connectors are available with either a Micro-B plug or Micro-AB receptacle insert and feature a grounding post on the shell for screening as well as a PCB board for termination.

Mating cable-mount connectors in either latch or break-away styles are available either as individual connectors or as pre-terminated overmoulded cable assemblies.



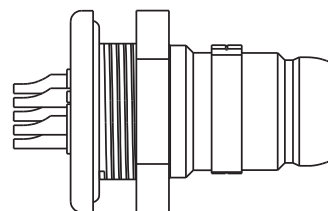
### How to order

Request CPD drawings from factory for part numbers beginning **SCE2USB...**

## Plugs – table of styles

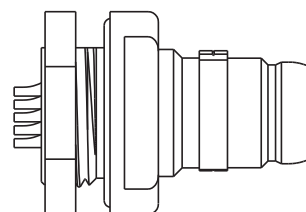
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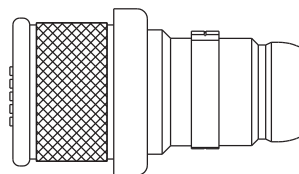
### SCE2-X-67A

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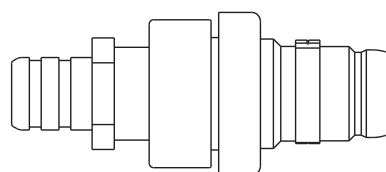
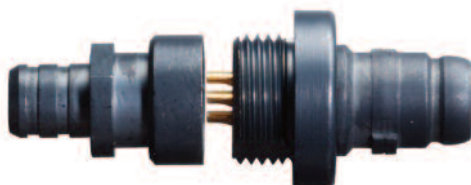
### SCE2-X-06K

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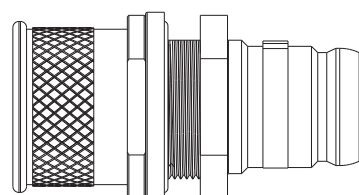
### SCE2-X-06T

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### SCE2-X-76T

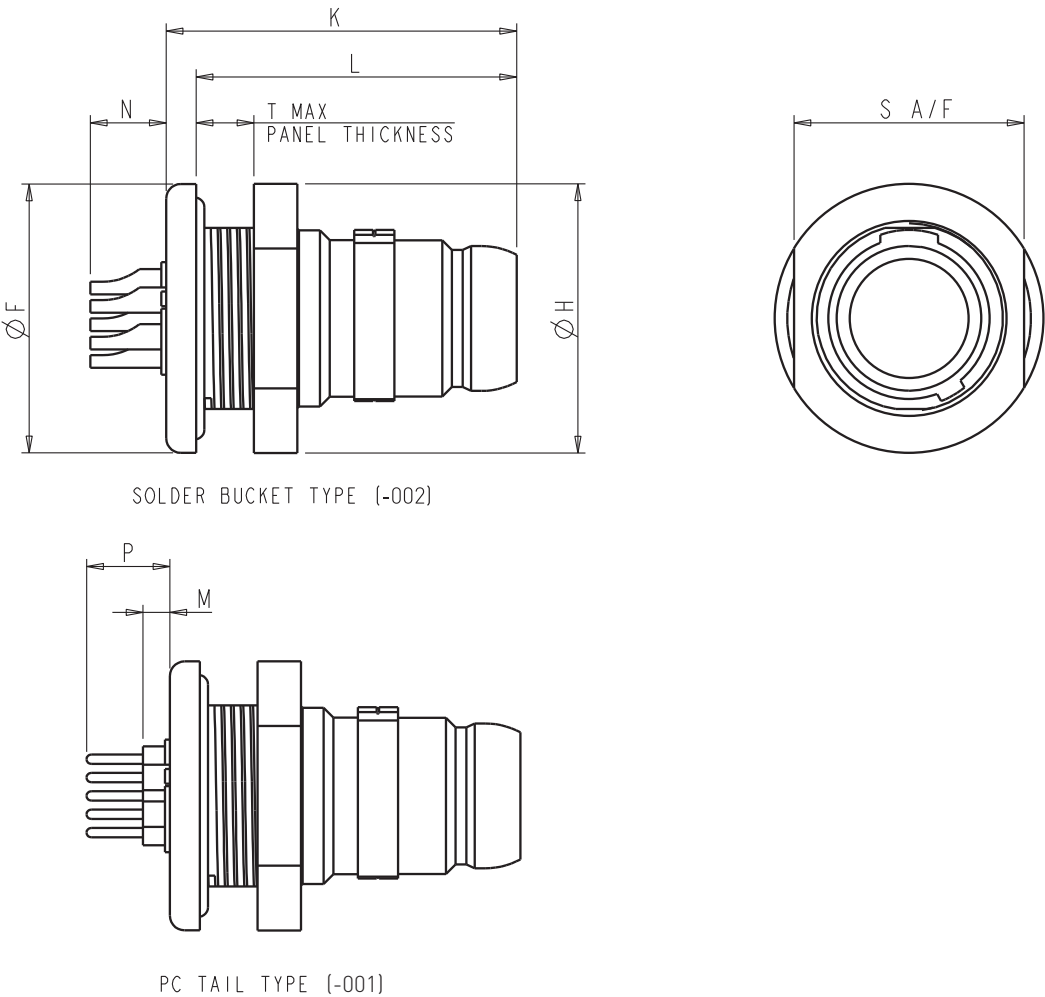
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Plug

SCE2-X-76AXX-XXSX-XXX

■ Rear Mount Jam Nut Plug



| Shell Size | ØF           | ØH           | K            | L            | M           | N           | P           | S A/F        | T Max       |
|------------|--------------|--------------|--------------|--------------|-------------|-------------|-------------|--------------|-------------|
| Size 06    | .550 (13.97) | .550 (13.97) | .716 (18.19) | .655 (16.64) | .055 (1.40) | .155 (3.94) | .170 (4.32) | .470 (11.94) | .118 (3.00) |
| Size 07    | .620 (15.75) | .600 (15.24) | .716 (18.19) | .655 (16.64) | .055 (1.40) | .155 (3.94) | .170 (4.32) | .510 (12.95) | .118 (3.00) |
| Size 08    | .760 (19.30) | .760 (19.30) | .716 (18.19) | .655 (16.64) | .055 (1.40) | .155 (3.94) | .170 (4.32) | .706 (17.93) | .118 (3.00) |
| Size 09    | .890 (22.61) | .830 (21.08) | .802 (20.37) | .725 (18.42) | .114 (2.90) | .069 (1.75) | .234 (5.94) | .745 (18.92) | .125 (3.18) |
| Size 10    | .930 (23.62) | .900 (22.86) | .802 (20.37) | .725 (18.42) | .114 (2.90) | .069 (1.75) | .234 (5.94) | .808 (20.52) | .125 (3.18) |

All dimensions are in inches (mm shown in brackets) and are for reference only. Figure enlarged scale.

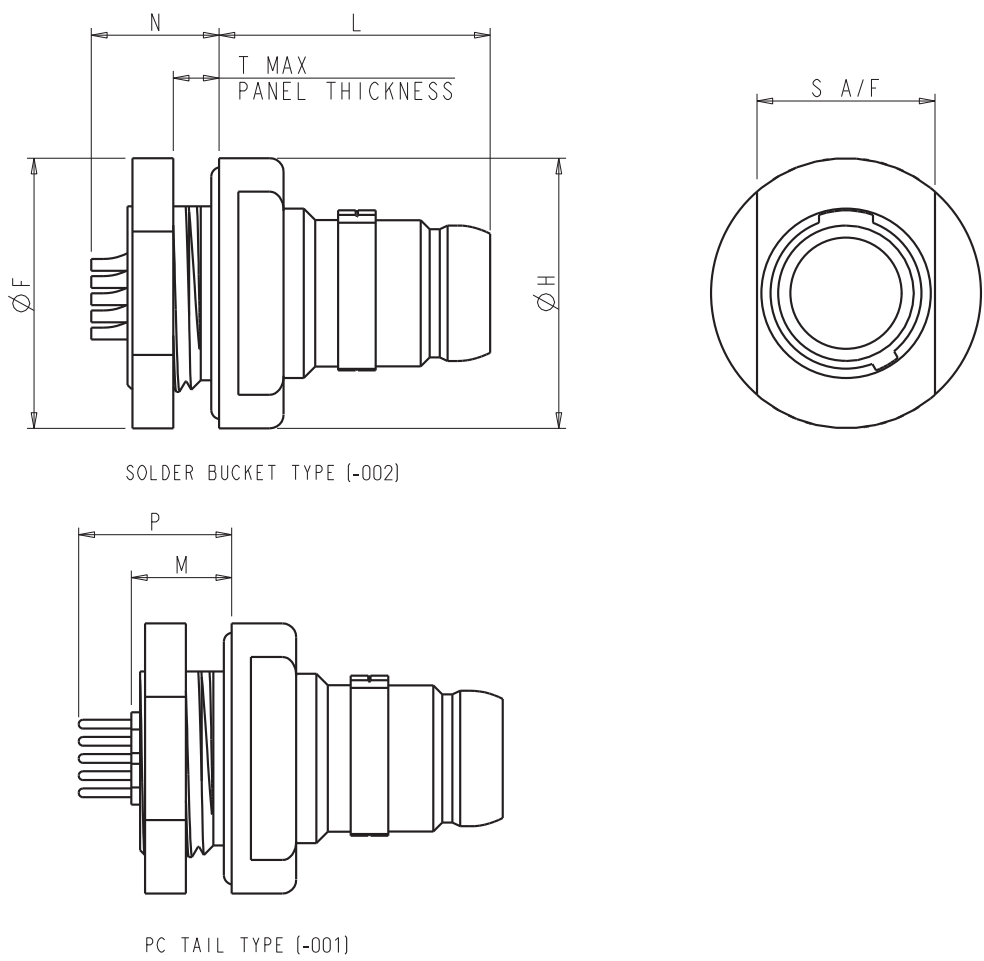
Plug

SCE2-X-67AXX-XXSX-XXX

■ Front Mount Jam Nut Plug



Plug



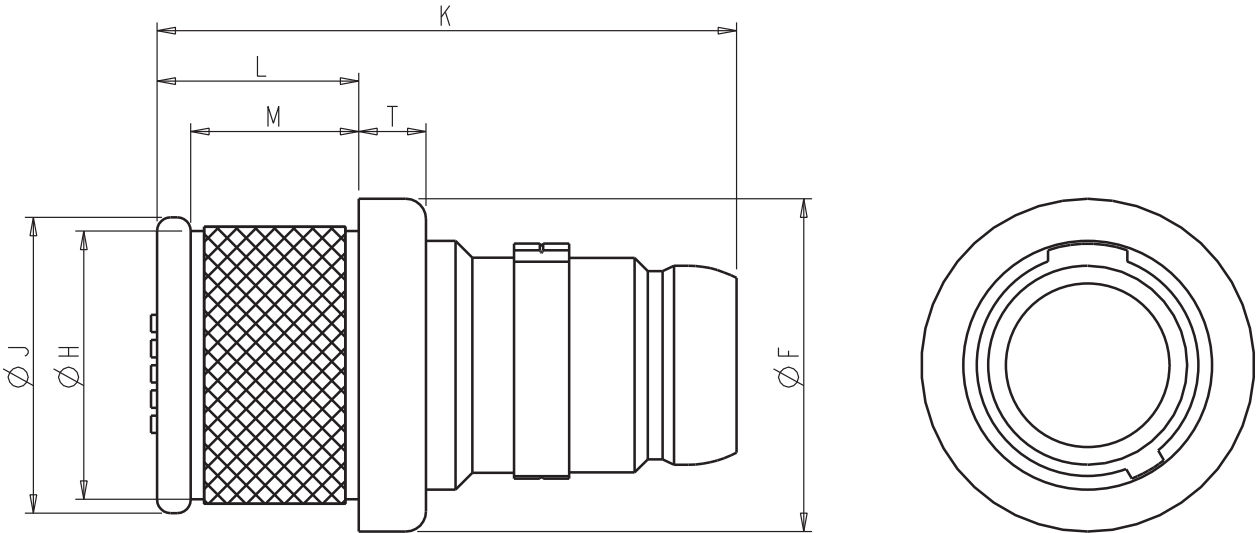
| Shell Size | ØF           | ØH           | L            | M           | N           | P            | S A/F        | T Max       |
|------------|--------------|--------------|--------------|-------------|-------------|--------------|--------------|-------------|
| Size 06    | .590 (14.99) | .590 (14.99) | .592 (15.04) | .324 (8.23) | .279 (7.09) | .424 (10.78) | .525 (13.34) | .100 (2.54) |
| Size 07    | .750 (19.05) | .750 (19.05) | .592 (15.04) | .324 (8.23) | .279 (7.09) | .444 (11.27) | .665 (16.89) | .100(2.54)  |
| Size 08    | .760 (19.30) | .760 (19.30) | .592 (15.04) | .324 (8.23) | .279 (7.09) | .444 (11.27) | .706 (17.93) | .100 (2.54) |
| Size 09    | .890 (22.61) | .890 (22.61) | .662 (16.82) | .254 (6.45) | .209 (5.31) | .354 (8.99)  | .955 (24.26) | .100 (2.54) |
| Size 10    | .930 (23.62) | .930 (23.62) | .662 (16.82) | .254 (6.45) | .209 (5.31) | .354 (8.99)  | .995 (25.27) | .100 (2.54) |

All dimensions are in inches (mm shown in brackets) and are for reference only. Figure enlarged scale.

Plug

SCE2-X-06KXX-XXSX

- Inline Plug Integral Backshell



| Shell Size | ØF           | ØH           | ØJ           | K            | L           | M           | T           |
|------------|--------------|--------------|--------------|--------------|-------------|-------------|-------------|
| Size 06    | .495 (12.57) | .412 (10.46) | .440 (11.18) | .862 (21.89) | .300 (7.62) | .250 (6.35) | .100 (2.54) |
| Size 07    | .575 (14.61) | .460 (11.68) | .505 (12.83) | .862 (21.89) | .300 (7.62) | .250 (6.35) | .100 (2.54) |
| Size 08    | .650 (16.51) | .593 (15.06) | .620 (15.75) | .862 (21.89) | .300 (7.62) | .250 (6.35) | .100 (2.54) |
| Size 09    | .720 (18.23) | .663 (16.84) | .690 (17.53) | .932 (23.67) | .317 (8.05) | .267 (6.78) | .100 (2.54) |
| Size 10    | .790 (20.06) | .733 (18.61) | .760 (19.30) | .932 (23.67) | .317 (8.05) | .267 (6.78) | .100 (2.54) |

All dimensions are in inches (mm shown in brackets) and are for reference only. Figure enlarged scale.

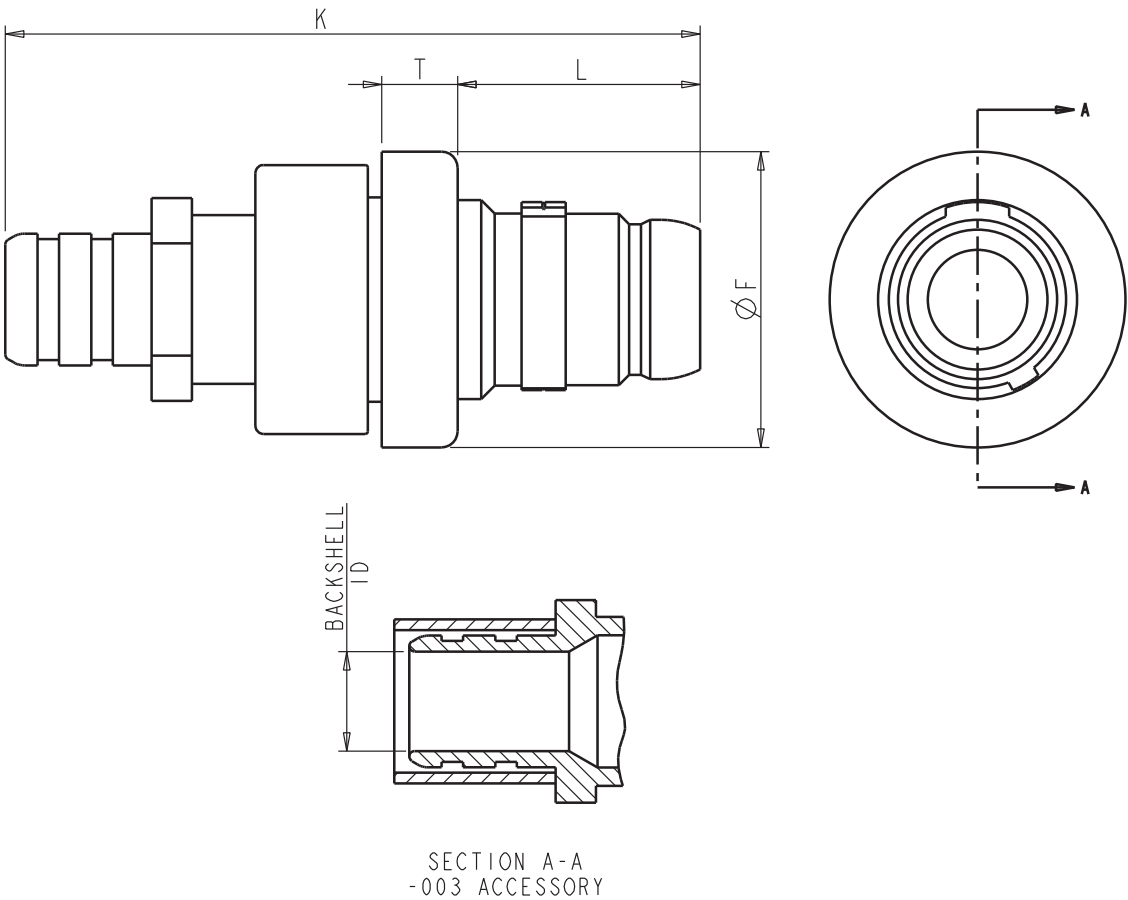
Plug

SCE2-X-06TXX-XXSX-003

■ Inline Plug Threaded Backshell



Plug



| Shell Size | ØF           | K             | L            | T           | Backshell ID |
|------------|--------------|---------------|--------------|-------------|--------------|
|            |              |               |              |             | -003         |
| Size 06    | .550 (13.97) | 1.292 (32.82) | .451 (11.46) | .141 (3.58) | .185 (4.70)  |
| Size 07    | .630 (16.00) | 1.292 (32.82) | .451 (11.46) | .141 (3.58) | .265 (6.73)  |
| Size 08    | .705 (17.91) | 1.292 (32.82) | .451 (11.46) | .141 (3.58) | .345 (8.76)  |
| Size 09    | .780 (19.81) | 1.362 (34.60) | .521 (13.23) | .141 (3.58) | .425 (10.80) |
| Size 10    | .855 (21.72) | 1.362 (34.60) | .521 (13.23) | .141 (3.58) | .505 (12.83) |

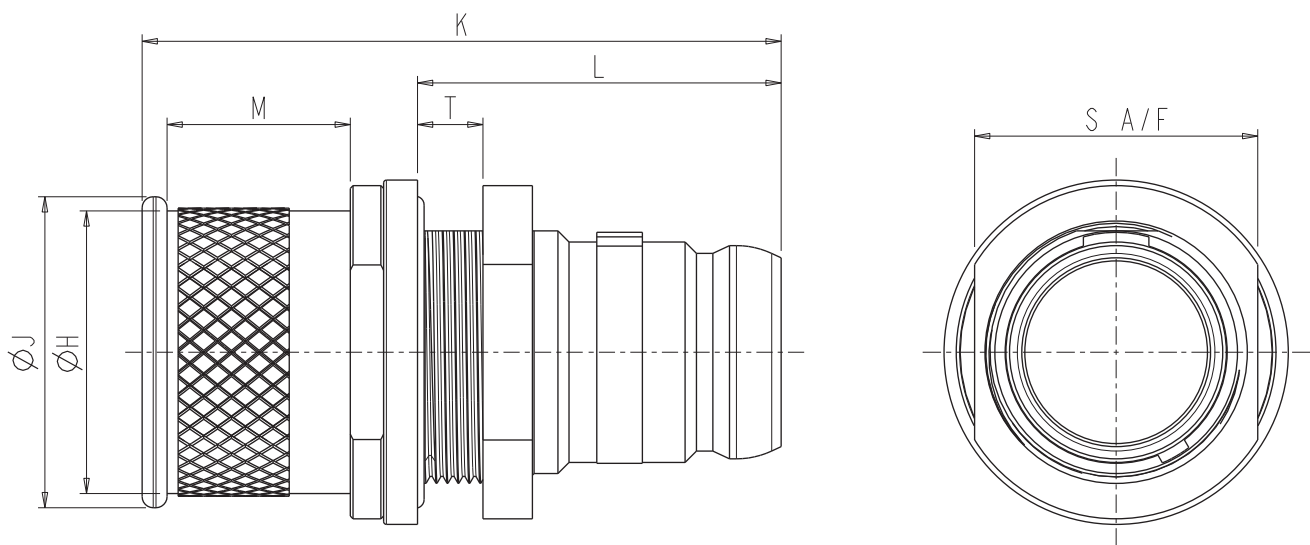
All dimensions are in inches (mm shown in brackets) and are for reference only. Figure enlarged scale.

Plug

SCE2-X-76TXX-XXSX-002

■ Rear Mount Jam Nut Plug (Screw On Backshell)





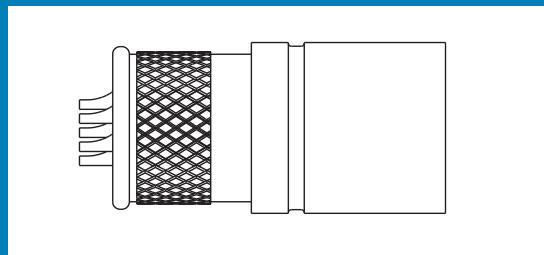
| Shell Size | ØH           | ØJ           | K             | L            | M           | S A/F        | T Max       |
|------------|--------------|--------------|---------------|--------------|-------------|--------------|-------------|
| Size 06    | .460 (11.68) | .490 (12.45) | 1.150 (29.21) | .655 (16.64) | .330 (8.38) | .470 (11.94) | .118 (3.00) |
| Size 07    | .519 (13.18) | .560 (14.21) | 1.150 (29.21) | .655 (16.64) | .330 (8.38) | .510 (12.95) | .118 (3.00) |
| Size 08    | .700 (17.78) | .730 (18.53) | 1.150 (29.21) | .655 (16.64) | .330 (8.38) | .706 (17.93) | .118 (3.00) |
| Size 09    | .752 (19.10) | .793 (20.13) | 1.237 (31.40) | .725 (18.42) | .330 (8.38) | .745 (18.92) | .125 (3.18) |
| Size 10    | .860 (21.84) | .900 (22.86) | 1.220 (30.99) | .725 (18.42) | .330 (8.38) | .808 (20.52) | .125 (3.18) |

All dimensions are in inches (mm shown in brackets) and are for reference only. Figure enlarged scale.

## Receptacles – table of styles

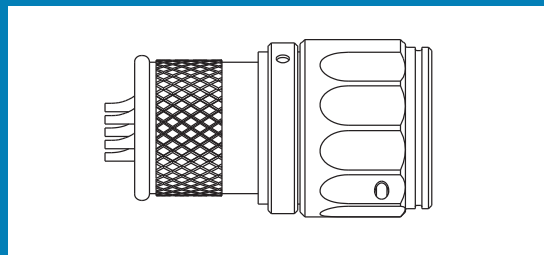
### SCE2-X-01K

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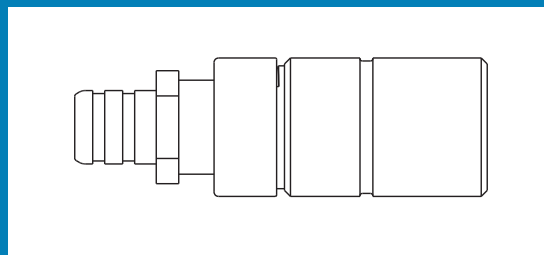
### SCE2-X-L1K

Page 19



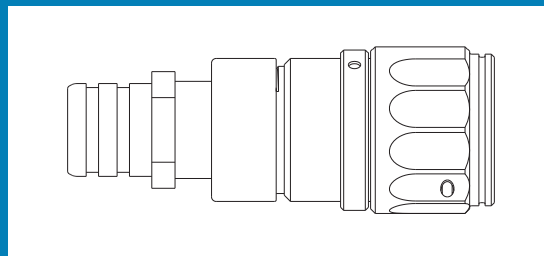
### SCE2-X-01T

Page 20



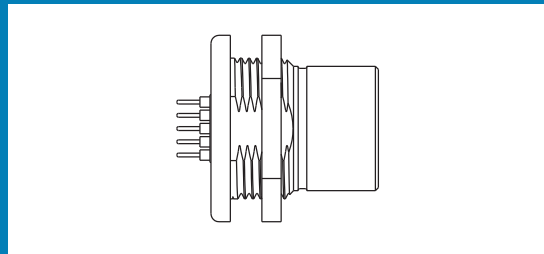
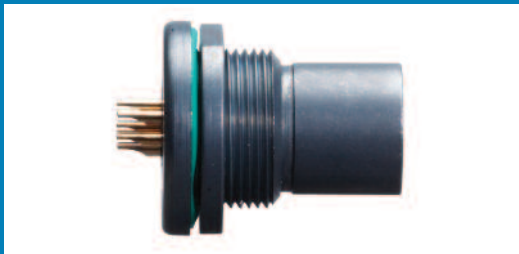
### SCE2-X-L1T

Page 21



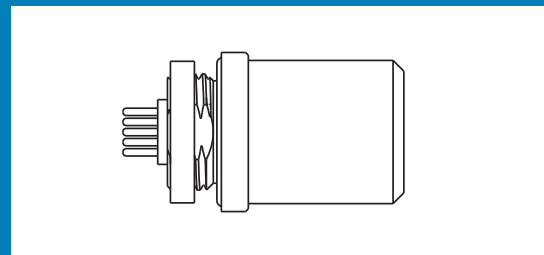
### SCE2-X-07A

Page 22



### SCE2-X-71A

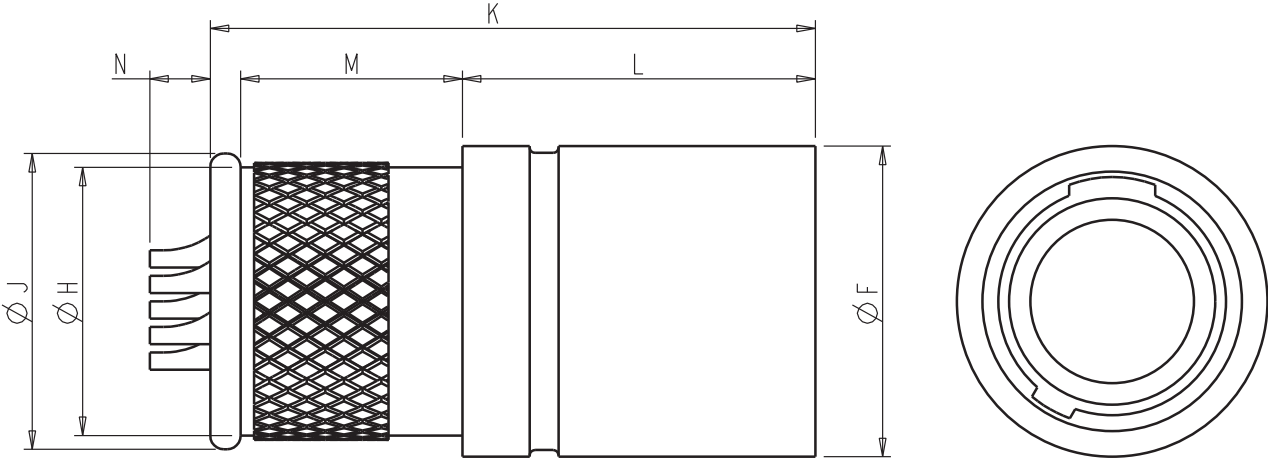
Page 23



Receptacle

SCE2-X-01KXX-XXPX

■ Inline Receptacle, Integral Backshell



| Shell Size | $\varnothing F$ | $\varnothing H$ | $\varnothing J$ | K            | L            | M            | N           |
|------------|-----------------|-----------------|-----------------|--------------|--------------|--------------|-------------|
| Size 06    | .462 (11.73)    | .399 (10.13)    | .440 (11.18)    | .900 (22.86) | .525 (13.34) | .330 (8.38)  | .090 (2.29) |
| Size 07    | .575 (14.61)    | .460 (11.68)    | .505 (12.83)    | .900 (22.86) | .525 (13.34) | .330 (8.38)  | .090 (2.29) |
| Size 08    | .620 (15.75)    | .581 (14.76)    | .620 (15.75)    | .900 (22.86) | .525 (13.34) | .330 (8.38)  | .090 (2.29) |
| Size 09    | .690 (17.51)    | .651 (16.54)    | .690 (17.53)    | .970 (24.64) | .525 (13.34) | .400 (10.16) | .090 (2.29) |
| Size 10    | .760 (19.29)    | .721 (18.31)    | .760 (19.30)    | .970 (24.64) | .525 (13.34) | .400 (10.16) | .090 (2.29) |

All dimensions are in inches (mm shown in brackets) and are for reference only. Figure enlarged scale.

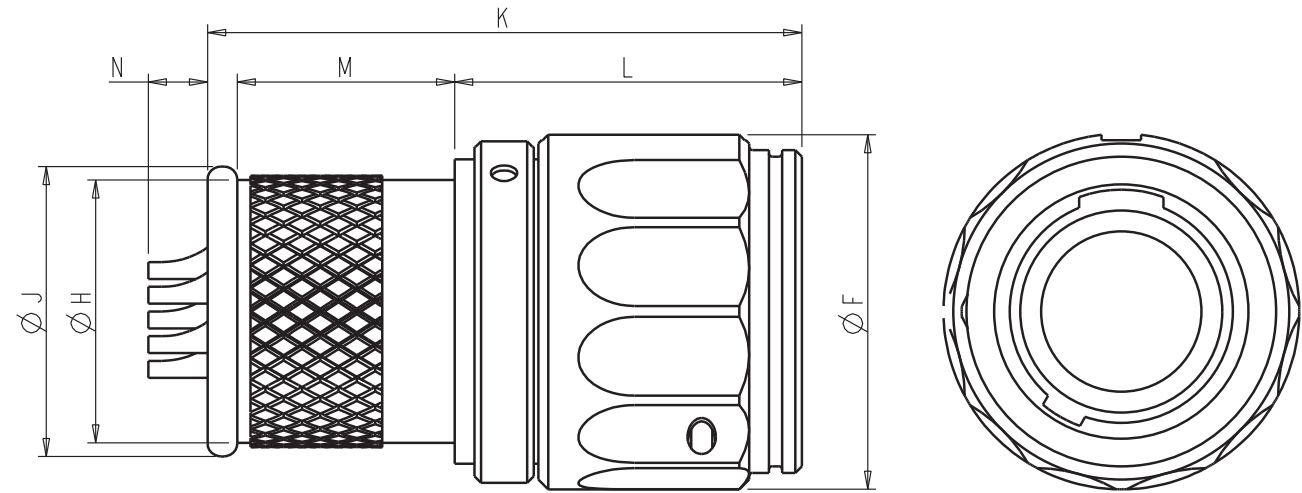
Receptacle

SCE2-X-L1KXX-XXPX

■ Inline Latching Receptacle, Integral Backshell



Receptacle



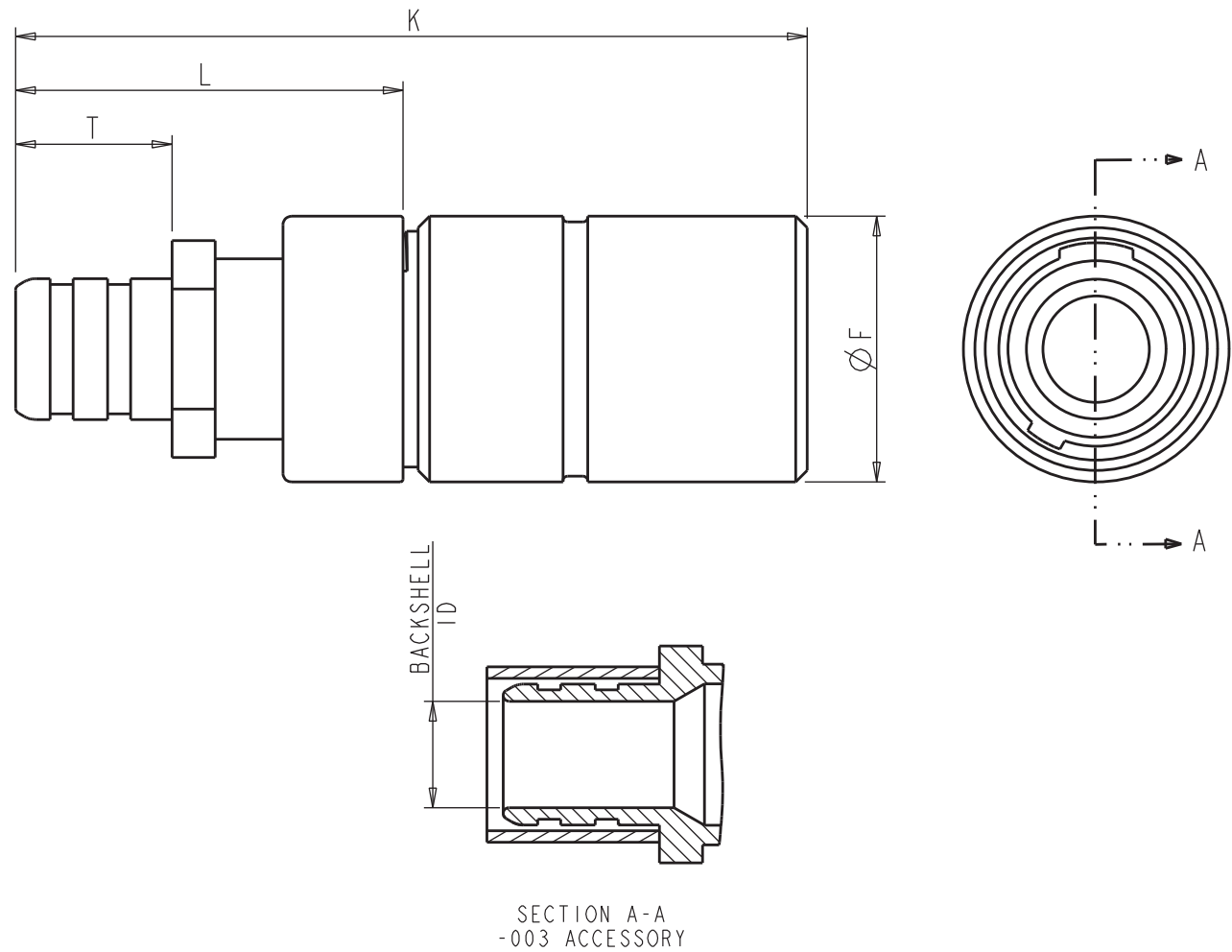
| Shell Size | $\varnothing F$ | $\varnothing H$ | $\varnothing J$ | K            | L            | M            | N           |
|------------|-----------------|-----------------|-----------------|--------------|--------------|--------------|-------------|
| Size 06    | .540 (13.71)    | .399 (10.14)    | .440 (11.18)    | .902 (22.91) | .527 (13.39) | .330 (8.38)  | .090 (2.29) |
| Size 07    | .610 (15.50)    | .447 (11.35)    | .505 (12.83)    | .902 (22.91) | .527 (13.39) | .330 (8.38)  | .090 (2.29) |
| Size 08    | .700 (17.77)    | .581 (14.75)    | .620 (15.75)    | .902 (22.91) | .527 (13.39) | .330 (8.38)  | .090 (2.29) |
| Size 09    | .770 (19.56)    | .651 (16.54)    | .690 (17.53)    | .972 (24.69) | .527 (13.39) | .400 (10.16) | .090 (2.29) |
| Size 10    | .840 (21.34)    | .721 (18.31)    | .760 (19.30)    | .972 (24.69) | .527 (13.39) | .400 (10.16) | .090 (2.29) |

All dimensions are in inches (mm shown in brackets) and are for reference only. Figure enlarged scale.

Receptacle

SCE2-X-01TXX-XXPX-003

■ Inline Receptacle, Threaded Backshell



| Shell Size | ØF           | K             | L            | T           | Backshell ID |
|------------|--------------|---------------|--------------|-------------|--------------|
|            |              |               |              |             | -003         |
| Size 06    | .462 (11.73) | 1.377 (34.98) | .674 (17.12) | .272 (6.91) | .185 (4.70)  |
| Size 07    | .575 (14.61) | 1.377 (34.98) | .674 (17.12) | .272 (6.91) | .265 (6.73)  |
| Size 08    | .620 (15.75) | 1.377 (34.98) | .674 (17.12) | .272 (6.91) | .345 (8.76)  |
| Size 09    | .690 (17.53) | 1.447 (36.75) | .674 (17.12) | .272 (6.91) | .425 (10.80) |
| Size 10    | .760 (19.30) | 1.447 (36.75) | .674 (17.12) | .272 (6.91) | .505 (12.83) |

All dimensions are in inches (mm shown in brackets) and are for reference only. Figure enlarged scale.

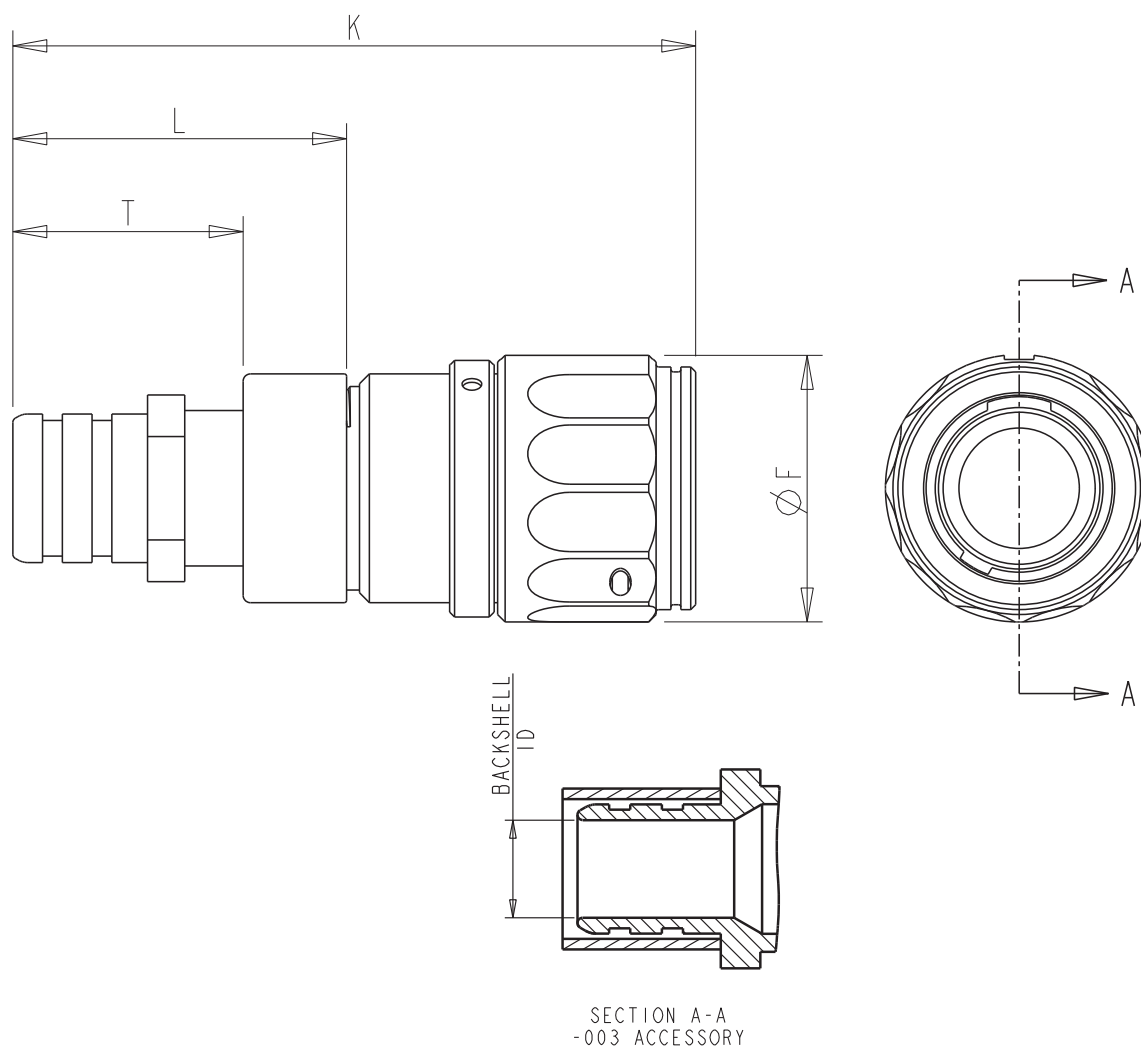
## Receptacle

### SCE2-X-L1TXX-XXPX-003

■ Inline Latching Receptacle, Threaded Backshell



Receptacle



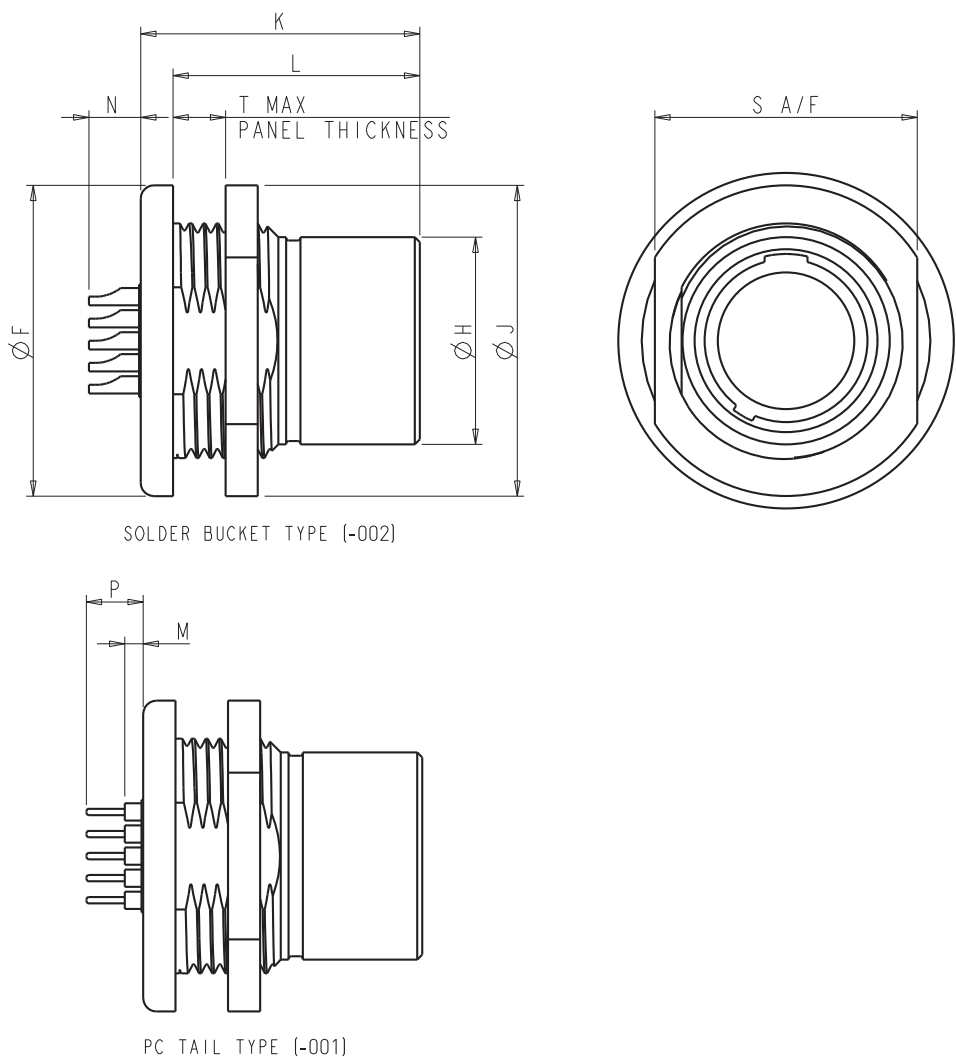
| Shell Size | ØF           | K             | L            | T            | Backshell ID |
|------------|--------------|---------------|--------------|--------------|--------------|
| Size 06    | .540 (13.70) | 1.379 (35.03) | .674 (17.12) | .465 (11.81) | .185 (4.70)  |
| Size 07    | .610 (15.50) | 1.379 (35.03) | .674 (17.12) | .465 (11.81) | .265 (6.73)  |
| Size 08    | .700 (17.77) | 1.379 (35.03) | .674 (17.12) | .465 (11.81) | .345 (8.76)  |
| Size 09    | .770 (19.56) | 1.449 (36.80) | .674 (17.12) | .465 (11.81) | .425 (10.80) |
| Size 10    | .840 (21.34) | 1.470 (37.34) | .674 (17.12) | .465 (11.81) | .505 (12.83) |

All dimensions are in inches (mm shown in brackets) and are for reference only. Figure enlarged scale.

Receptacle

SCE2-X-07AXX-XXPX-XXX

■ Rear Mount Jam Nut Receptacle



| Shell Size | ØF            | ØH           | ØJ            | K            | L            | M           | N           | P           | S A/F        | T Max       |
|------------|---------------|--------------|---------------|--------------|--------------|-------------|-------------|-------------|--------------|-------------|
| Size 06    | .750 (19.05)  | .462 (11.73) | .750 (19.05)  | .835 (21.21) | .738 (18.75) | .055 (1.40) | .155 (3.94) | .170 (4.32) | .665 (16.88) | .157 (3.99) |
| Size 07    | .895 (22.73)  | .575 (14.61) | .895 (22.73)  | .835 (21.21) | .738 (18.75) | .055 (1.40) | .155 (3.94) | .170 (4.32) | .750 (19.05) | .157 (3.99) |
| Size 08    | .930 (23.62)  | .620 (15.75) | .930 (23.62)  | .835 (21.21) | .738 (18.75) | .055 (1.40) | .155 (3.94) | .170 (4.32) | .785 (19.94) | .157 (3.99) |
| Size 09    | 1.000 (25.38) | .690 (17.53) | 1.005 (25.53) | .905 (22.99) | .808 (20.52) | N/A         | .155 (3.94) | .170 (4.32) | .863 (21.92) | .157 (3.99) |
| Size 10    | 1.070 (27.18) | .760 (19.30) | 1.080 (27.43) | .905 (22.99) | .808 (20.52) | N/A         | .155 (3.94) | .170 (4.32) | .940 (23.88) | .157 (3.99) |

All dimensions are in inches (mm shown in brackets) and are for reference only. Figure enlarged scale.

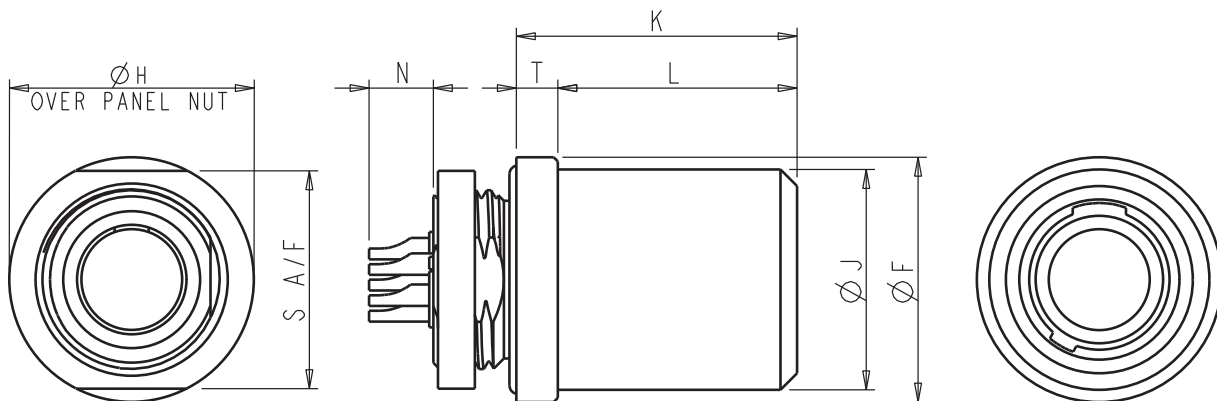
## Receptacle

### SCE2-X-71AXX-XXPX-XXX

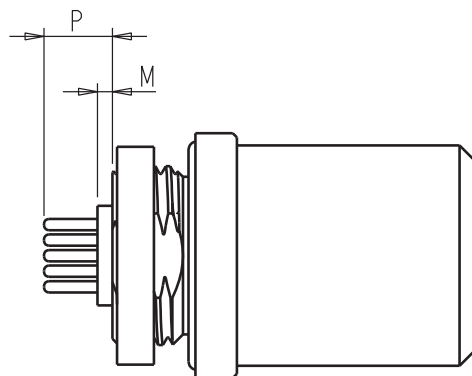
■ Front Mount Receptacle, Threaded



Receptacle



SOLDER BUCKET TYPE (-002)



PC TAIL TYPE (-001)

| Shell Size | ØF           | ØJ           | ØH           | K            | L            | M           | N           | P           | S A/F        | T           |
|------------|--------------|--------------|--------------|--------------|--------------|-------------|-------------|-------------|--------------|-------------|
| Size 06    | N/A          | .531 (13.48) | .550 (13.97) | .677 (17.19) | N/A          | .015 (0.38) | .113 (2.87) | .130 (3.30) | .470 (11.94) | N/A         |
| Size 07    | .750 (19.04) | .575 (14.61) | .750 (19.04) | .677 (17.19) | .577 (14.65) | .015 (0.38) | .113 (2.87) | .130 (3.30) | .665 (16.89) | .100 (2.54) |
| Size 08    | .760 (19.30) | .620 (15.75) | .760 (19.30) | .877 (22.28) | .677 (17.20) | .015 (0.38) | .113 (2.87) | .130 (3.30) | .825 (20.96) | .100 (2.54) |
| Size 09    | .890 (22.61) | .690 (17.53) | .890 (22.61) | .947 (24.05) | .747 (18.97) | N/A         | .113 (2.87) | .060 (1.52) | .955 (24.26) | .100 (2.54) |
| Size 10    | .930 (23.62) | .760 (19.30) | .930 (23.62) | .947 (24.05) | .747 (18.97) | N/A         | .113 (2.87) | .060 (1.52) | .995 (25.27) | .100 (2.54) |

All dimensions are in inches (mm shown in brackets) and are for reference only. Figure enlarged scale.

Accessories

Cap assembly part numbering

Example: 390-5056-06-130-02 | See Pages 25-28 for drawings | (1101) deviation for aluminium caps with black zinc nickel plating finish

| 390—              | XXXX—                         | XX—        | XXX—              | XX                       |
|-------------------|-------------------------------|------------|-------------------|--------------------------|
| Series identifier | Cap style                     | Shell size | Cord length in mm | Accessories              |
|                   | 5056                          | 06         |                   | 01                       |
|                   | Metal cap to fit receptacles  | 07         | 070               | 02                       |
|                   |                               | 08         | 130               | 03                       |
|                   | 5057                          | 09         | 180               | 04                       |
|                   | Metal cap to fit plugs        | 10         | 210               | 05                       |
|                   | 5063                          |            |                   | See table on pages 25-28 |
|                   | Rubber cap to fit receptacles |            |                   |                          |
|                   | 5064                          |            |                   |                          |
|                   | Rubber cap to fit plugs       |            |                   |                          |

Heatshrink Boots

- Part number: 123GB-0798-XX-X-0  
XX = shell size, for example: 06, 07, 08, 09, or 10  
X = S for straight or R for right angled



Braid Retention Strap

- Part number: 123GB-0799-0  
Tooling available on request



Castellated Panel Nut

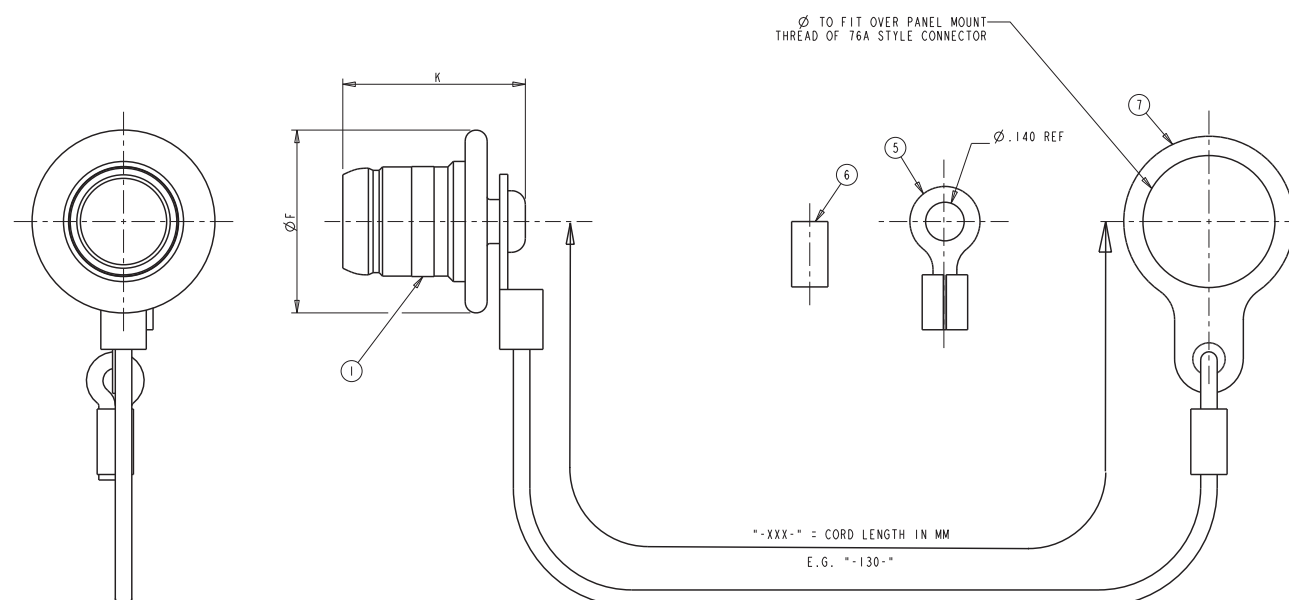
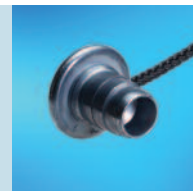
- Add deviation (981)  
Tool: 390-5058-XXAXX-02 where XXAXX is shell style and size for which the tool is to fit  
e.g. 390-5058-76A06-02



## Accessories

### 390-5056-XX-XXX-XX

■ Metal Dust Cap Assembly for Receptacles



| Shell size | Part number        | Item 1<br>Cap |              |
|------------|--------------------|---------------|--------------|
|            |                    | ØF            | K            |
| 06         | 390-5056-06-XXX-XX | .575 (14.61)  | .664 (16.87) |
| 07         | 390-5056-07-XXX-XX | .665 (16.89)  | .664 (16.87) |
| 08         | 390-5056-08-XXX-XX | .750 (19.05)  | .664 (16.87) |
| 09         | 390-5056-09-XXX-XX | .890 (22.60)  | .764 (19.40) |
| 10         | 390-5056-10-XXX-XX | .900 (22.86)  | .764 (19.40) |

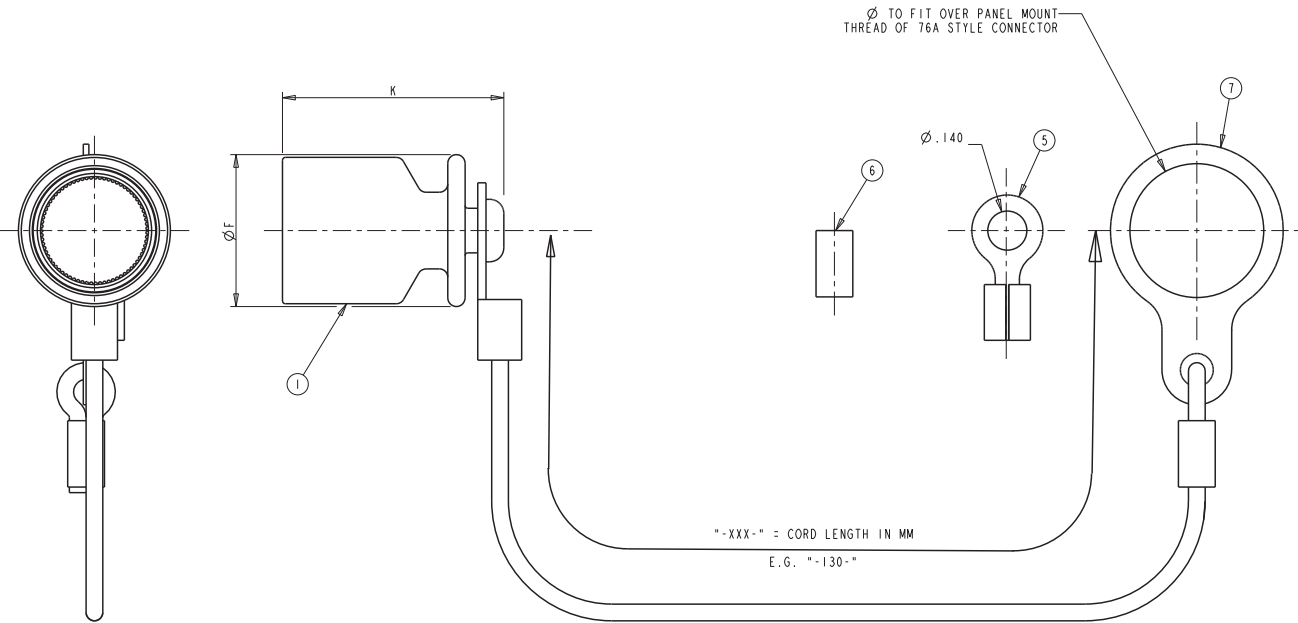
| Supplied with      |                  |                         |                        |
|--------------------|------------------|-------------------------|------------------------|
| Part number        | Item 5<br>Eyelet | Item 6<br>Crimp ferrule | Item 7<br>Large eyelet |
| 390-5056-XX-XXX-01 | —                | —                       | —                      |
| 390-5056-XX-XXX-02 | —                | 1                       | —                      |
| 390-5056-XX-XXX-03 | 1                | —                       | —                      |
| 390-5056-XX-XXX-04 | 1                | 1                       | —                      |
| 390-5056-XX-XXX-05 | —                | —                       | 1                      |

All dimensions are in inches (mm shown in brackets) and are for reference only. Figure enlarged scale.

Accessories

390-5057-XX-XXX-XX

- Metal Dust Cap Assembly for Plugs



| Shell size | Part number        | Item 1<br>Cap |              |
|------------|--------------------|---------------|--------------|
|            |                    | ØF            | K            |
| 06         | 390-5057-06-XXX-XX | .464 (11.79)  | .794 (20.17) |
| 07         | 390-5057-07-XXX-XX | .545 (13.84)  | .794 (20.17) |
| 08         | 390-5057-08-XXX-XX | .620 (15.75)  | .794 (20.17) |
| 09         | 390-5057-09-XXX-XX | .695 (17.65)  | .894 (22.70) |
| 10         | 390-5057-10-XXX-XX | .770 (19.56)  | .894 (22.70) |

| Supplied with      |                  |                         |                        |
|--------------------|------------------|-------------------------|------------------------|
| Part number        | Item 5<br>Eyelet | Item 6<br>Crimp ferrule | Item 7<br>Large eyelet |
| 390-5057-XX-XXX-01 | —                | —                       | —                      |
| 390-5057-XX-XXX-02 | —                | 1                       | —                      |
| 390-5057-XX-XXX-03 | 1                | —                       | —                      |
| 390-5057-XX-XXX-04 | 1                | 1                       | —                      |
| 390-5057-XX-XXX-05 | —                | —                       | 1                      |

All dimensions are in inches (mm shown in brackets) and are for reference only. Figure enlarged scale.

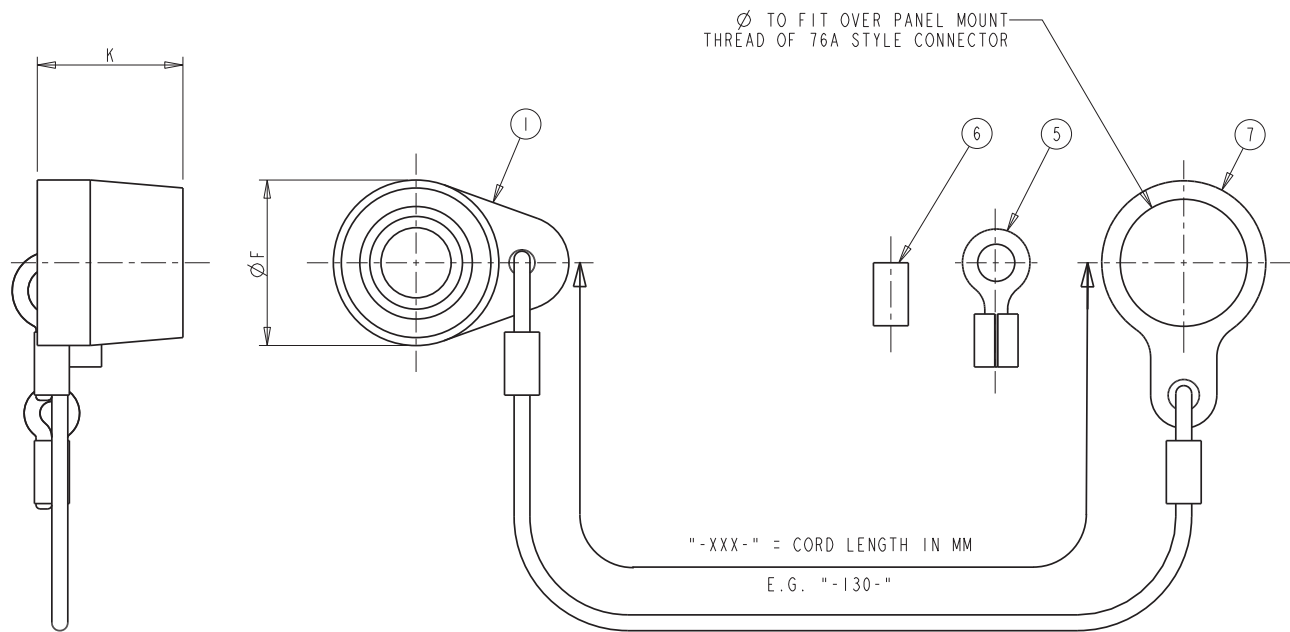
Accessories

390-5063-XX-XXX-XX

■ Rubber Dust Cap Assembly for Receptacles



Accessories



| Shell size | Part number       | Item 1<br>Cap |              |
|------------|-------------------|---------------|--------------|
|            |                   | ØF            | K            |
| 06         | 390-5063-06-XX-XX | .625 (15.87)  | .550 (13.97) |
| 07         | 390-5063-07-XX-XX | .725 (18.42)  | .550 (13.97) |
| 08         | 390-5063-08-XX-XX | .780 (19.81)  | .550 (13.97) |
| 09         | 390-5063-09-XX-XX | .870 (22.09)  | .550 (13.97) |
| 10         | 390-5063-10-XX-XX | .940 (23.88)  | .550 (13.97) |

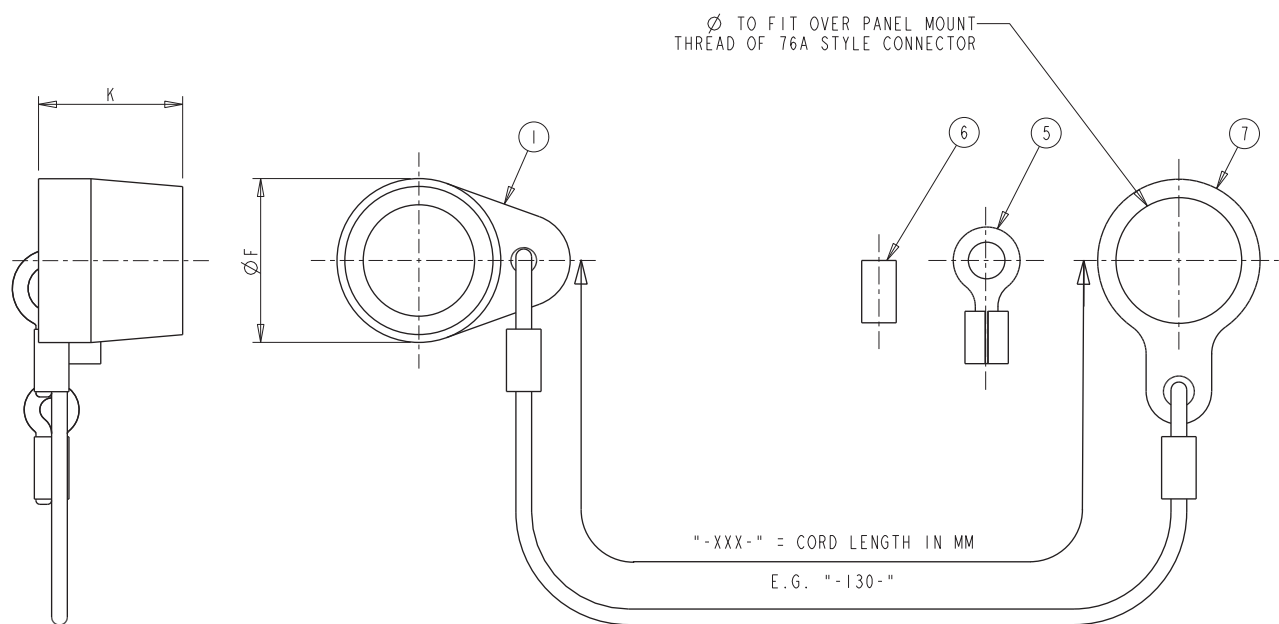
| Supplied with      |                  |                         |                        |
|--------------------|------------------|-------------------------|------------------------|
| Part number        | Item 5<br>Eyelet | Item 6<br>Crimp ferrule | Item 7<br>Large eyelet |
| 390-5063-XX-XXX-01 | —                | —                       | —                      |
| 390-5063-XX-XXX-02 | —                | 1                       | —                      |
| 390-5063-XX-XXX-03 | 1                | —                       | —                      |
| 390-5063-XX-XXX-04 | 1                | 1                       | —                      |
| 390-5063-XX-XXX-05 | —                | —                       | 1                      |

All dimensions are in inches (mm shown in brackets) and are for reference only. Figure enlarged scale.

Accessories

390-5064-XX-XXX-XX

■ Rubber Dust Cap Assembly for Plugs



| Shell size | Part number        | Item 1<br>Cap |              |
|------------|--------------------|---------------|--------------|
|            |                    | ØF            | K            |
| 06         | 390-5064-06-XXX-XX | .450 (11.43)  | .550 (13.97) |
| 07         | 390-5064-07-XXX-XX | .525 (13.34)  | .550 (13.97) |
| 08         | 390-5064-08-XXX-XX | .595 (15.11)  | .550 (13.97) |
| 09         | 390-5064-09-XXX-XX | .665 (16.89)  | .550 (13.97) |
| 10         | 390-5064-10-XXX-XX | .735 (18.67)  | .550 (13.97) |

| Supplied with      |                  |                         |                        |
|--------------------|------------------|-------------------------|------------------------|
| Part number        | Item 5<br>Eyelet | Item 6<br>Crimp ferrule | Item 7<br>Large eyelet |
| 390-5064-XX-XXX-01 | —                | —                       | —                      |
| 390-5064-XX-XXX-02 | —                | 1                       | —                      |
| 390-5064-XX-XXX-03 | 1                | —                       | —                      |
| 390-5064-XX-XXX-04 | 1                | 1                       | —                      |
| 390-5064-XX-XXX-05 | —                | —                       | 1                      |

All dimensions are in inches (mm shown in brackets) and are for reference only. Figure enlarged scale.

## Accessories

### Overmoulded cable harnesses using Terrapin connectors



Amphenol Ltd design, prototype and manufacture a wide range of both standard and customised cable harness assemblies utilising overmould technology. The Terrapin connector range has been designed specifically to lend itself to this method of termination.

Amphenol Ltd's capability in manufacturing is matched by our engineering expertise, we are able to offer a full design and development service from drawing conception to production delivery.

Overmoulding has fast become widely recognised for the benefits it brings to equipments used in both military and harsh environment situations.

#### Military/harsh environment situations

- Both standard and custom profile mouldings available
- In-house design and prototype facility
- Aesthetically uniform product
- Repeatable high complexity mouldings
- Low cost and repair by replacement
- Robust and tamper-proof
- Straight and angled mouldings
- Low profile mouldings
- Finger grips, logos and tactile indicators optional
- Mould material suitable for NBC washdown
- High degree of sealing – IP68

#### Typical applications

- Chemical detection units
- Comms units
- Display Modules
- GPS
- Headsets
- Hubs
- LAN Switches
- Radios
- Routers
- Ruggedised laptops
- Sensor units
- Surveillance and rangefinders
- Weapons systems

## NEW Hermetic Sealing



**Terrapin connectors are often selected for their high degree of IP68 sealing to 20m immersion in water.**

However for greater sealing or for high temperature and high pressure environments, these connectors can also be supplied with a glass to metal hermetic seal. Glass to metal seals facilitate an excellent level of hermeticity greater than  $10^{-9}\text{cm}^3\text{sec}^{-1}$  at 1atm  $\Delta P$  Helium. Various shell and pin materials are available dependant on the application.

## NEW EMI Filtering

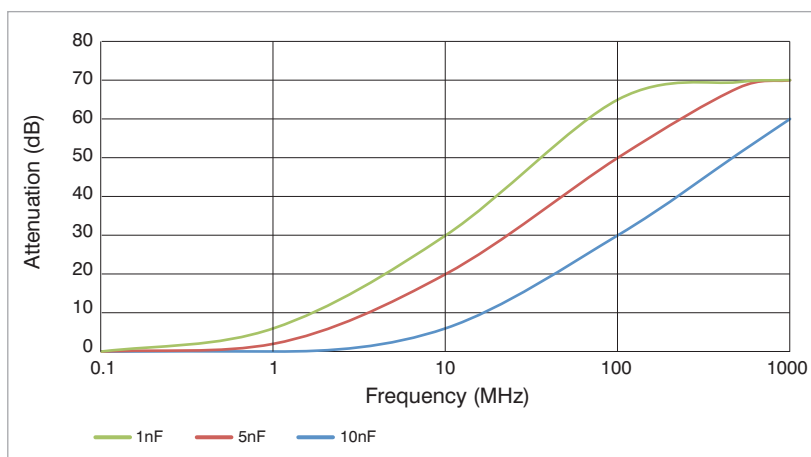


**Terrapin connectors are also available with embedded EMI filter circuits. Planar filtering technology further enhances the renowned EMC performance of the Terrapin range and has minimal impact on the physical size of the connectors. Connectors can be supplied with either standard or customised Pi, C or LC filter circuits.**

Embedding filtering eliminates the need for 'dirty' areas or additional filter boards and circuitry within a box, resulting in weight and space savings. Filtering within the connector also enables a low impedance path between filter and ground, mechanically and environmentally protected circuits and increased reliability. The mechanical design of the Filtered Terrapin connectors ensure that equipment is protected from unwanted signals and noise as well as the ingress of dust and moisture.

Pi filtering is achieved via dual capacitors with a single inductive element between them. This circuit arrangement provides excellent performance due to its sharp attenuation slope and is suitable for a variety of applications.

The typical frequency response of these three different Pi circuits is shown based on a  $50\Omega$  source and load impedance.



### How to order

Contact factory for more information on part numbering and specification

## Notes

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## Worldwide sales contacts

### Europe

**Amphenol Ltd, UK**  
Thanet Way, Whitstable  
Kent, CT5 3JF  
United Kingdom  
T: +44 1227 773 200

**Amphenol Socapex, France**  
948, promenade de l'Arve BP29  
74311 Thyez Cedex  
France  
T: +33 4 50 89 28 00

**Amphenol Air LB, France**  
10 rue champ Raymond  
08110 Carignan  
France  
T: +33 3 24 22 32 70

**Amphenol AIR LB GmbH, Germany**  
Am Kleinbahnhof 4  
66740 Saarlouis  
Germany  
T: +49 6831 981 00

**Amphenol Nordic**  
T: +46 702 129 200

**Amphenol Switzerland and South Centre**  
*Switzerland, Slovenia, Serbia, Montenegro, Yugoslavia, Greece, Bulgaria*  
948, promenade de l'Arve BP29  
74311 Thyez Cedex  
France  
T: +33 4 50 89 28 00

**Amphenol Italy**  
Via Barbaiana n.5  
20020 Lainate, Milano  
Italy  
T: +39 293 254 214

**Amphenol Benelux**  
Zadelmaker 121 NL  
2401 PD Alphen aan den Rijn  
The Netherlands  
T: +31 172 444 903

**Amphenol Iberica**  
Edificio Burgosol, Oficina nr 55  
Comunidad de Madrid,  
35 bis Las Rozas (Madrid)  
Spain  
T: +34 91 640 73 06

**Amphenol Poland and Central East Europe**  
*Austria, Poland, Czech Republic, Slovakia, Romania*  
Wiener gasse 68  
2380 Perchtoldsdorf  
Austria  
T: +43 699 10396 071

### North America

**Amphenol PCD USA**  
72 Cherry Hill Drive  
Beverly, MA. 01915-1065  
USA  
T: +1 978 624 3400

**Amphenol Canada Corporation**  
605 Milner Avenue  
Toronto, Ontario  
Canada  
M1B 5X6  
T: +1 416 291 4401

### Asia

**Amphenol Daeshin, Korea**  
558 SongNae-2 Dong, SoSa-Gu,  
Bucheon City, Gyeonggi-do  
422-040, Korea  
T: +82 32 610 3800

**Amphenol Interconnect India Private Limited**  
105 Bhosari Industrial Area  
Pune 411 026  
India  
T: +91 203 068 8304

**Amphenol Japan**  
471-1 Deba, Ritto-City  
Shiga 520-3041  
Japan  
T: +81 77 553 8501

**Amphenol PCD CO Ltd, China**  
Building 21, 1st Liao Keng  
Industrial Zone, Shi Yan Street  
Bao An District, Shenzhen 518108  
China  
T: +86 755 8173 8000

### Other areas

**Amphenol Argentina**  
Av. Callao 930 2do piso Oficina B  
"Plaza" C1023 – AAP, Buenos Aires  
Argentina  
T: +54 11 4815 6886

**Amphenol Australia Pty Ltd**  
22 Industry Boulevard  
Carrum Downs, Victoria 3201  
Australia

**Amphenol Do Brazil**  
Rua Diogo Moreira  
132, 20 andar, rooms 2001-2-3  
CEP: 05423 010 Sao Paulo SP  
Brazil  
T: +55 11 3815 1003

**Bar-Tec Ltd, Israel**  
3 Hagavish Street, K fir-Barkan Bldg  
East Industrial Zone  
Kfar-Sava, 44102  
Israel  
T: +972 9 764 4100

**Amphenol Mexico**  
Prolongacion Reforma 61-6 B2  
Col Passo de las Lomas  
CP013130  
Mexico  
T: +52 55 5258 9984

**Amphenol Russia**  
Yaroslavskaja Street 8  
129164 Moscow  
Russia  
T: +7 495 937 6341

**Amphenol South Africa**  
30 Impala Road  
2196 Chislehurst  
Sandton  
South Africa  
T: +27 11 783 9517

**Amphenol Turkey**  
Sun Plaza 15 Kat:  
15 Maslak Hah. Bilim  
Sok. No.5  
Sisli/Istanbul, 34398  
Turkey  
T: +90 212 367 92 19

# Amphenol®

For more information call **+44 (0)1227 773200**

Amphenol Ltd Thanet Way Whitstable Kent CT5 3JF | Email: [terrapi@amphenol.co.uk](mailto:terrapi@amphenol.co.uk) | [www.amphenol.co.uk](http://www.amphenol.co.uk)

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