

Description

Assemblies and combinations

Individual switches in combination with endcaps can easily be built into block assemblies by integrated snap pins. Spacers and housings can be integrated in any given sequence.

Special circuit boards

If you require a specially constructed PCB (special material, terminals, layout etc.), please consult the factory.

Stops

Cherry provides many standard combinations of rotation-limiting stops to help tailor our switches exactly to your application. In series PE stops can be installed in the field.

Colors and legends

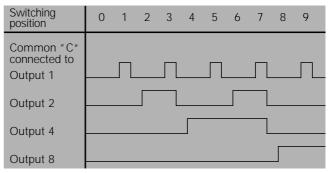
The standard switch color is black. The wheels are black with white characters. Special colors for housings, wheels and legends are available upon request. We are able to print letters, symbols or figures according to individual requirements.

Circuitry

Standard circuitry is break-before-make (bbm). For make-before-break (mbb), please consult the factory.

Codes

For standard codes please refer to individual switch series. Further and special codes available upon request.



Mounting of components

Many standard codes are available with an extended PCB for mounting of diodes or resistors.

Truth tables

| Table 1: BCD | | | | | |
|--------------|------|-------|--------|--------|--|
| Readout- | Comr | mon C | connec | ted to | |
| symbols | 1 | 2 | 4 | 8 | |
| 0 | | | | | |
| 1 | • | | | | |
| 2 | | • | | | |
| 3 | • | • | | | |
| 4 | | | • | | |
| 5 | • | | • | | |
| 6 | | • | • | | |
| 7 | • | • | • | | |
| 8 | | | | • | |
| 9 | • | | | • | |

| Readout- | С | on | nm | on | С | cor | ne | cte | ed t | 0 |
|----------|---|----|----|----|---|-----|----|-----|------|---|
| symbols | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 0 | ٠ | | | | | | | | | П |
| 1 | | ٠ | | | | | | | | |
| 2 | | | • | | | | | | | |
| 3 | | | | ٠ | | | | | | |
| 4 | | | | | • | | | | | |
| 5 | | | | | | ٠ | | | | |
| 6 | | | | | | | • | | | |
| 7 | | | | | | | | ٠ | | |
| 8 | | | | | | | | | • | |
| 9 | | | | | | | | | | ٠ |

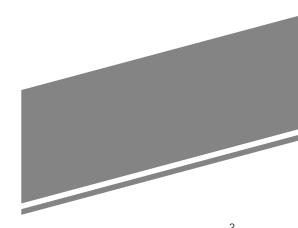
| | | • • | | ~ |
|---------|---|-----|----------|------------|
| | | | Common C | connec. to |
| symbols | | | 1 | 2 |
| + | 0 | 0 | • | |
| - | 1 | 5 | | • |
| + | 0 | 0 | • | |
| - | 1 | 5 | | • |
| + | 0 | 0 | • | |
| - | 1 | 5 | | • |
| + | 0 | 0 | • | |
| - | 1 | 5 | | • |
| + | 0 | 0 | • | |
| - | 1 | 5 | | • |
| | • | | | |

Table 4: Single pole repeating

| Table 5: Hexadecimal | | | | | | | |
|----------------------|-----------------------|---|---|---|--|--|--|
| Readout- | Common C connected to | | | | | | |
| symbols | 1 | 2 | 4 | 8 | | | |
| 0 | | | | | | | |
| 2 | • | | | | | | |
| 2 | • | ٠ | | | | | |
| 4 5 | | | • | | | | |
| 6 | | • | ٠ | | | | |
| 8 | • | • | • | | | | |
| 9 | • | | | • | | | |
| 10 (A) 11 (B) | | · | | • | | | |
| 12 (C) | | | ٠ | ٠ | | | |
| 13(D) 14(E) | • | | | | | | |
| 15(F) | • | • | • | • | | | |

| Table 8: BCD + complement | | | | | | | | |
|---------------------------|---|---------------------|---|---|---|---|---|---|
| | | Common C connec. to | | | | | | |
| symbols | 1 | 2 | 3 | 4 | 1 | 2 | 4 | 8 |
| 0 | | | | | ٠ | ٠ | • | • |
| 1 | • | | | | | ٠ | • | • |
| 2 | | • | | | ٠ | | • | • |
| 3 | • | • | | | | | • | • |
| 4 | | | ŀ | | ٠ | ٠ | | • |
| 5 | • | | ٠ | | | • | | • |
| 6 | | • | ŀ | | ٠ | | | • |
| 7 | • | ٠ | ٠ | | | | | • |
| 8 | | | | • | ٠ | • | • | |
| 9 | • | | | • | | • | • | |

| Readout- | Comr | Common C connec. to | | | | |
|----------|------|---------------------|---|---|--|--|
| symbols | 1 | 2 | 4 | 8 | | |
| 0 | • | • | • | • | | |
| 1 | | • | • | ٠ | | |
| 2 | • | | • | ٠ | | |
| 3 | | | • | ٠ | | |
| 4 | • | • | | ٠ | | |
| 5 | | • | | ٠ | | |
| 6 | • | | | • | | |
| 7 | | | | ٠ | | |
| 8 | • | • | • | | | |
| 9 | | • | • | | | |





Serie PA

Characteristics

- Selector switches with very small dimensions for front-mounting.
- 10 or 16 switching positions. Housing black.
- Extended PCB for mounting of additional components available.
- Connection with Q.C. terminal or solder pins



Technical data

Operating force

Contact resistance
Insulating resistance
Dielectric strength
Electrical rating
(ohmic restistance)
Max. current
(non switching current)
Temperature
Life cycle (mechanical)
Shock
Vibration
Weight

Materials

Housing material Contacts Printed circuit board

Mounting

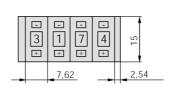
Stops Terminals approx. 300 cN (with tactile feeling) 0,1 Ω max. 10^3 M Ω 500 V–

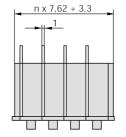
0,1 A/50 V≃

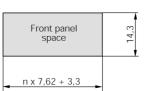
1A -20 bis +80 °C 106 operations 50 g, 11 ms 15 g, 10-2000 Hz approx. 2 g

PPO (Noryl) WE alloy No. 2 G 10 (FR 4) Glass filled epoxy, copper-plated Au over Ni Front-mounting, snap-in endcaps. Mounting of units through integrated pins. Setting through factory only. Q.C. terminal gold-plated or solder pins.

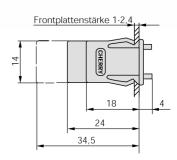
Dimensions in mm



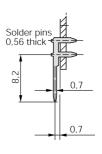




Solder pins not available for codes "Decimal" and "BCD + complement"

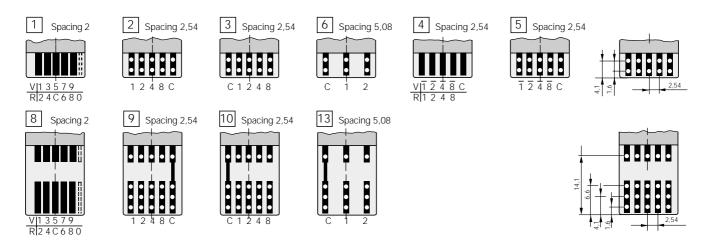


| Schalt- Positionen | Fenster- Ausschnitt | Ziffern- Höhe |
|-----------------------|------------------------|------------------|
| 10 | B=3,6 H=4 | 3 |
| 16 | B=3,6 H=2,5 | 1,8 |





PCB terminals



Codes b

| Switching position | Code Other codes on request | Readout | Truth table no (refer to page 3 | PCB- terminal no.) | PCB short | PCB extended | Code |
|--------------------|-----------------------------------|--------------|---------------------------------------|---------------------------|--------------|-----------------|------|
| 10 | Dezimal | 0 - 9 | 2 | 1/8 | • | • | А |
| 10 | BCD | 0 - 9 | 1 | 2/9 | • | • | С |
| 10 | BCD Complement | 0 - 9 | 11 | 5 | • | | Е |
| 10 | BCD + Complement | 0 - 9 | 8 | 4 | • | | F |
| 10 | Single pole repeating | +/- alt. | 4 | 6/13 | • | • | Р |
| 16 | Hexadecimal | 0 - 15 | 5 | 3/10 | • | • | G |
| 16 | Hexadecimal | 0 - 9, A - F | 5 | 3/10 | • | • | Н |

Terminals c

| Terminals | Index |
|----------------|-------|
| Q.C. terminals | А |
| Solder pins | F |

PCB versions a

| PCB version | Index |
|-------------|-------|
| short | 3 |
| extended | 4 |

Accessories for assembly Stock codes Endcap left 609-0801

| Endcap iert | 009-0801 |
|-----------------|----------|
| Endcap right | 609-0799 |
| Housing 7,62 mm | 609-0797 |
| Spacer 2.54 mm | 609-0803 |

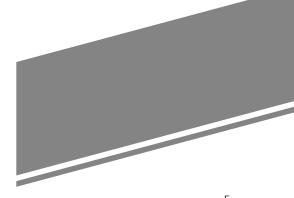
Example

| | · · · · · · · · · · · · · · · · · · · |
|-----|--|
| PA: | Series |
| C: | Code BCD |
| A: | Q.C. terminal |
| 3: | PCB short |
| 4: | 4 indiv. Switches, completely assembled with endcaps |
| 00. | Standard version |

Ordering index

| а | b | С | d | е | f |
|----|---|-----|-----|---|----|
| PA | С | Α . | - 3 | 4 | 00 |

e Single switch or qty. or assembled switches (1 – 9) with endcaps f Version (Standard = 00)





Series PB

Characteristics

- Selector switches with only 6 mm width for compact building of blocks with a larger number of modules.
- 10 switching positions.
 Housing black.
- Connection with solder pins



Technical data

Operating force

Contact resistance
Insulating resistance
Dielectric strength
Electrical rating
(ohmic restistance)
Max. current
(non switching current)
Temperature
Life cycle (mechanical)
Shock
Vibration
Weight

Materials

Housing material Contacts Printed circuit board

Mounting

Stops Terminals

approx. 300 cN (with tactile feeling) 0,1 Ω max.

10³ M Ω 500 V-

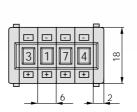
0,1 A/50 V≃

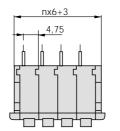
1A -20 bis +80 °C 106 operations 50 g, 11 ms 15 g, 10-2000 Hz approx. 2 g

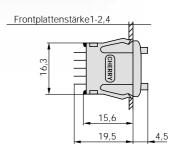
PPO (Noryl) WE alloy FR 3, copper-plated Au over In

Front-mounting, snap-in endcaps. Mounting of units through integrated pins. Setting through factory only. Solder pins: 0,6 x 0,5 (spacing 2,54)

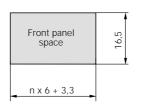
Dimensions in mm

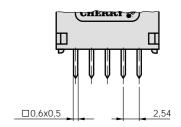






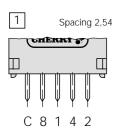
| Switching positions | Readout dimensions | Height of legends |
|---------------------|-----------------------|----------------------|
| 10 | B=3 H=4 | 3 |

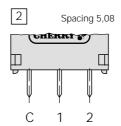


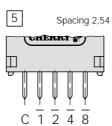




PCB terminals







| Switching position | Code | Readout | Truth table no I (refer to page 3) | PCB terminal no. | Code |
|--------------------|-----------------------|----------|--|---------------------|------|
| 10 | BCD | 0 - 9 | 1 | 1 | С |
| 10 | BCD Complement | 0 - 9 | 11 | 5 | Е |
| 10 | Single pole repeating | +/- alt. | 4 | 2 | Р |

Terminals c

| Terminals | Index |
|-------------|-------|
| Solder pins | 1 |

PCB versions a

| PCB version | Code |
|------------------------|------|
| PCB flush with housing | Е |
| with solder pins | |

Accessories for assembly stock codes.

| | , | |
|--------------|---|----------|
| Endcap left | | 609-1346 |
| Endcap right | | 609-1347 |
| Housing 6 mm | | 609-1348 |

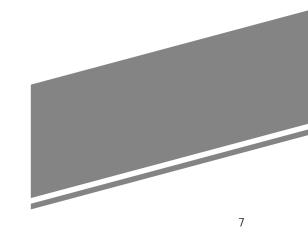
Example

| | PB: | Series |
|---|-----|--|
| I | C: | Code BCD |
| | 1: | Solder pins |
| | E: | PCB flush with housing |
| | 4: | 4 indiv. switches, completely assembled with endcaps |
| ĺ | 00: | Standard version |

Ordering index

| a | b | С | d | е | f |
|----|---|---|-----|---|----|
| PB | С | 1 | - E | 4 | 00 |

- e Single switch or qty. or assembled switches (1 9) with endcaps
- f Version (Standard = 00)





Series PE

Characteristics

- Selector switches for easy snap in frontmounting.
- 10 or 16 switching positions. Housing black.
- For switches with 10 switching positions stops can be installed in the field.



Technical data

Operating force

Contact resistance Insulating resistance Dielectric strength Electrical rating (ohmic resistance) Max. current (non switching current) Temperature Life cycle (mechanical) Shock Vibration Weight

Materials

Housing material Contacts Printed circuit board

Mounting

Stops

Terminals

approx. 400cN (with tactile feeling) $0.1 \Omega \text{ max}.$ $10^3\,M\Omega$ 500 V-

0,1 A/50 V≃

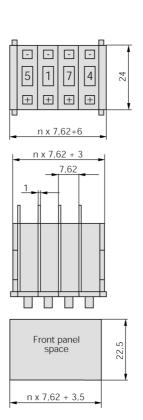
1 A -20 to +80 °C 106 operations 50 g, 11 ms 15 g, 10-2000 Hz approx. 4 g

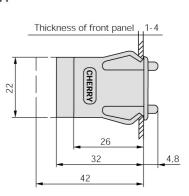
PPO (Noryl) WE alloy No. 2 G 10 (FR 4), Glass filled epoxy, copper-plated Au over Ni Front-mounting, snap-in endcaps. Mounting of units through integrated pins. Setting through factory or afterwards in the field (10 switching positions). With 16 switching positions stops can only be set in the factory.

Q.C. terminal gold-plated or

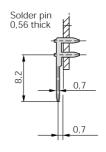
solder pins.

Dimensions in mm



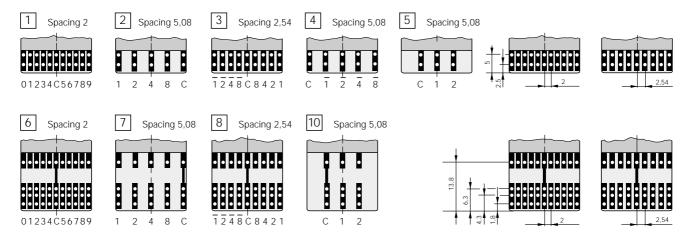


| Switching positions | Readout dimensions | Height of legends |
|---------------------|--------------------|-------------------|
| 10 | B=4 H=7 | 5 |
| 16 | B=3,8 H=4 | 3,4 |





PCB terminals



Codes b

| | Switching position | Code Other codes on request | Readout- | Truth table- no. (refer to page 3 | PCB terminal no. 3) | PCB short | PCB extended | Code |
|---|--------------------|-----------------------------------|--------------|---|---------------------------|--------------|-----------------|------|
| | 10 | Decimal | 0 - 9 | 2 | 1/6 | • | • | А |
| | 10 | BCD | 0 - 9 | 1 | 2/7 | • | • | С |
| | 10 | BCD Complement | 0 - 9 | 11 | 4 | • | | Е |
| | 10 | BCD + Complement | 0 - 9 | 8 | 3/8 | • | • | F |
| | 10 | Single pole repeating | +/- alt. | 4 | 5/10 | • | • | Р |
| ı | 16 | Hexadecimal | 0 - 15 | 5 | 2/7 | • | • | G |
| | 16 | Hexadecimal | 0 - 9, A - F | 5 | 2/7 | • | • | Н |

Terminals c

| Terminals | Index |
|---------------|-------|
| Q.C. terminal | А |
| Solder pins | F |

PCB versions a

| PCB version | Index |
|-------------|-------|
| short | 3 |
| extended | 4 |

Accessorie

| Accessories for assembly | Stock codes |
|---|-------------|
| Endcap left | 609-0754 |
| Endcap right | 609-0756 |
| Housing 7,62 mm | 609-0752 |
| Spacer 2,54 mm | 609-0760 |
| Spacer 2,54 mm without snap-in brackets | 609-1609 |
| Stop pin | 607-0013 |

Example

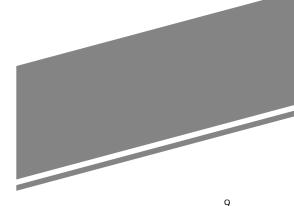
| | l l |
|-----|--|
| PE: | Series |
| C: | Code BCD |
| A: | Q.C. terminal |
| 3: | PCB short |
| 4: | 4 indiv. switches, completely assembled with endcaps |
| 00. | Standard version |

Ordering index

| a | b | C | d | е | f |
|----|---|---|-----|---|----|
| PE | С | Α | - 3 | 4 | 00 |

e Single switch or qty. or assembled switches (1 – 9) with endcaps

f Version (Standard = 00)





Connectors

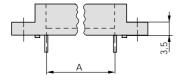
Connectors make the connection of the selector switches very easy. The female connectors are available with and without flange. Terminals of the connectors either solder pin or solder lugs.

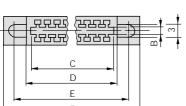


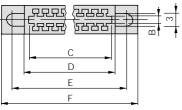
| Connector | | withou | t flange | with flange | | |
|-----------|---------|-------------|-------------|-------------|-------------|--|
| Series | Code | Solder pins | Solder lugs | Solder pins | Solder lugs | |
| PA | C,E,G,H | C2KO-P107 | C2KO-N107 | C2KF-P109 | C2KF-N109 | |
| | F | C2KO-P108 | C2KO-N108 | C2KF-P110 | C2KF-N110 | |
| | Р | C2KO-P130 | C2KO-N130 | C2KF-P129 | C2KF-N129 | |
| | А | C2RO-P8AD | C2RO-N8AD | C2RF-P8AD | C2RF-N8AD | |
| | | | | | | |
| PE | C,E,G,H | C2RO-P111 | C2RO-N111 | C2RF-P116 | C2RF-N116 | |
| | F | C2RO-P113 | C2RO-N113 | C2RF-P118 | C2RF-N118 | |
| | Р | C2RO-P135 | C2RO-N135 | C2RF-P136 | C2RF-N136 | |

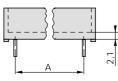
| Series | with flange — | | | | | - | | |
|--------|----------------|-----|------|----|----|----|------|--|
| | without flange | | | | | | | |
| | Spacing A | В | С | D | Е | F | G | |
| PA | 4 x 2,54 | 1,3 | 14,3 | 16 | 22 | 28 | 2,35 | |
| PE | 10 x 2,0 | 1,3 | 22,3 | 24 | 30 | 36 | 2,35 | |
| | 8 x 2,54 | | | | | | | |

With flange

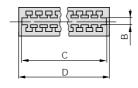


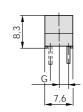




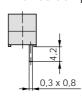


Without flange

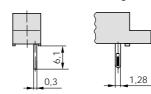




With solder pins



With solder lugs



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Click to view products by ZF Cherry manufacturer:

Other Similar products are found below:

896805000 LW1A-B2-R LW2A-B1-G LW2A-B1-S 61-9221.0 61-9221.9 61-9593.0 61-9593.2 61-9600.1 704.604.4 704-6089 704-6097
76 760203000 760503000 766601000 MG12KB MH11 MH13 MH16 MHU31 800C2BLK MJ621 MJ623 MJ626 MJ627 908-1634 92343.200 92-343.400 95804.920 95CAP-001 95CAP-010 95CAP-112 11-932.7 99-920.8 A0162J A0163D 11-931.2 11-932.5 11-937
A16ZT-5011B 121160200 AT496H AW-RF8 161006 1631032 1631034 1631040 1802169 1825068-6