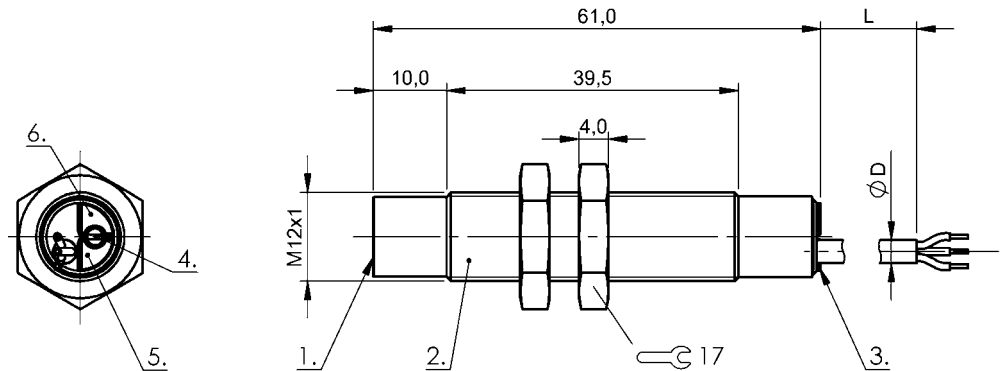


Capacitive Sensors
BCS M12BBG1-PSC80H-EP02
Order Code: BCS00R0



1) Sensing surface, 2) Housing, 3) Cover, 4) Potentiometer, 5) LED Power, 6) LED function indicator



Basic features

| | |
|---------------------|-------------------------------|
| Approval/Conformity | CE UKCA cULus WEEE |
| Basic standard | IEC 60947-5-2 |
| Scope of delivery | Nut (2x) |
| Sensitivity | Switching distance adjustable |
| Series | M12 |
| Trademark | Global |

Display/Operation

| | |
|--------------------|-----|
| Function indicator | yes |
| Power indicator | yes |

Electrical connection

| | |
|-----------------------------------|----------------------|
| Cable diameter D | 3.50 mm |
| Cable length L | 2 m |
| Conductor cross-section | 0.14 mm ² |
| Number of conductors | 3 |
| Polarity reversal protected | yes |
| Protection against device mix-ups | no |
| Short-circuit protection | yes |

Electrical data

| | |
|---|-------------|
| No-load current I ₀ max. at U _e | 20 mA |
| Operating voltage U _b | 10...30 VDC |
| Protection class | II |
| Rated insulation voltage U _i | 75 V DC |
| Rated operating current I _e | 100 mA |
| Rated operating voltage U _e DC | 24 V |
| Ready delay t _v max. | 100 ms |
| Ripple max. (% of U _e) | 10 % |
| Switching frequency | 100 Hz |
| Utilization category | DC -13 |
| Voltage drop static max. | 1.5 V |

Environmental conditions

| | |
|---------------------|-------------|
| Ambient temperature | -25...85 °C |
| Contamination scale | 2 |
| IP rating | IP67 |

Functional safety

| | |
|--------------|-------|
| MTTF (40 °C) | 226 a |
|--------------|-------|

Interface

| | |
|------------------|------------------------|
| Switching output | PNP normally open (NO) |
|------------------|------------------------|

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Material

| | |
|--------------------------|-----|
| Cover material | PA |
| Housing material | PBT |
| Material jacket | PUR |
| Material sensing surface | PBT |

Range/Distance

| | |
|----------------------------------|-------------------|
| Hysteresis H max. (% of Sr) | 15.0 % |
| Measuring range | 1...8 mm |
| Rated operating distance Sn | 8 mm |
| Repeat accuracy max. (% of Sr) | 2.0 % |
| Temperature drift max. (% of Sr) | 20 % [-5...55 °C] |

Mechanical data

| | |
|-------------------|--------------|
| Dimension | Ø 12 x 61 mm |
| Installation | non-flush |
| Size | M12x1 |
| Thread (A) | M12x1 |
| Tightening torque | 1 Nm |

Remarks

Full accuracy after warmup phase
The potentiometer does not have a fixed stop, but can be turned endlessly without destroying anything.
If no change in the switching signal is detected, the potentiometer should be turned forwards or backwards until a signal change occurs at the output.
For more information about MTTF and B10d see MTTF / B10d Certificate

Indication of the MTTF- / B10d value does not represent a binding composition and/or life expectancy assurance; these are simply experiential values with no warranty implications. These declared values also do not extend the expiration period for defect claims or affect it in any way.

Wiring Diagrams

