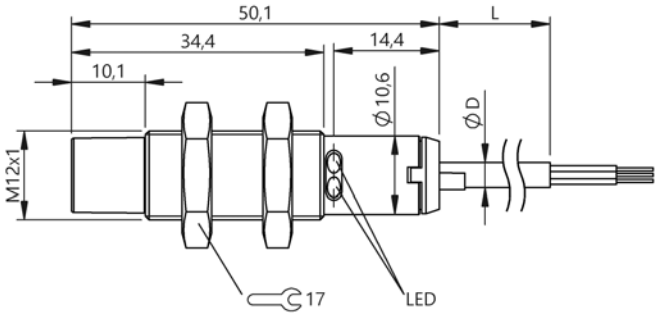
Capacitive Sensors

BCS M12K4G1-GOM80G-EP02
Order Code: BCS0178



Basic features

Approval/Conformity	CE UKCA cULus WEEE
Basic standard	IEC 60947-5-2
Scope of delivery	2x nut M12x1 Installation guide
Sensitivity	Switching distance teachable
Series	M12

Display/Operation

Function indicator	yes
Power indicator	yes

Electrical connection

Cable diameter D	3.4 mm
Cable length L	2 m
Conductor cross-section	0.14 mm²
Number of conductors	4
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

Electrical data

Load capacitance max. at Ue	220 nF
No-load current Io max. at Ue	15 mA
Operating voltage Ub	12...30 VDC
Rated insulation voltage Ui	75 V DC
Rated operating current Ie	100 mA
Rated operating voltage Ue DC	24 V
Ready delay tv max.	50 ms
Ripple max. (% of Ue)	10 %
Switching frequency	100 Hz
Utilization category	DC -13
Voltage drop static max.	2 V

Environmental conditions

Ambient temperature	-10...80 °C
Contamination scale	2
IP rating	IP67

Functional safety

MTTF (40 °C)	96.6 a

Interface

Switching output	Push-pull PNP normally closed (NC) / NPN normally open (NO)

Material

Cover material	PA 12
Housing material	1.4404 stainless steel
Material jacket	PUR
Material sensing surface	PEEK

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Mechanical data

Dimension	Ø 12 x 50 mm
Installation	non-flush
Size	M12x1
Thread (A)	M12x1
Tightening torque	8 Nm

Range/Distance

Hysteresis H max. (% of Sr)	15 %
Measuring range	0.5...8 mm
Rated operating distance Sn	8 mm
Repeat accuracy max. (% of Sr)	2 %
Temperature drift max. (% of Sr)	20 %

Remarks

For full calibration connect input DI to L+ for 2...7 seconds. For empty calibration connect to L+ for 7..12 seconds.
Input DI can be used for teaching the switching point. In normal operation input DI should be connected continuously to L-.
The push-pull switching outputs must not be connected in parallel.
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