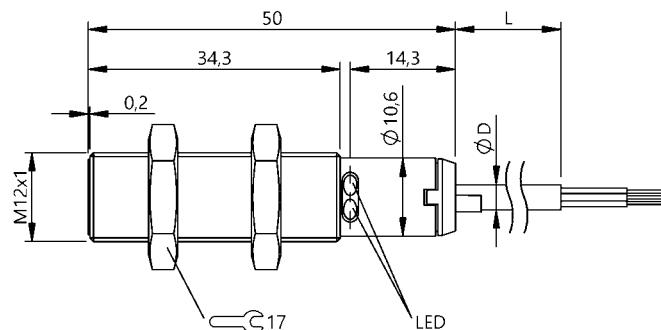


Capacitive Sensors

BCS M12K4G1-GOM50C-EP02

Order Code: BCS017J

BALLUFF

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

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 mm ²
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 I ₀ max. at Ue	15 mA
Operating voltage U _b	12...30 VDC
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.	50 ms
Ripple max. (% of U _e)	10 %
Switching frequency	100 Hz
Utilization category	DC -13
Voltage drop static max.	2 V

Environmental conditions

Ambient temperature	-10...80 °C
Contamination scale	1
IP rating	IP67

Functional safety

MTTF (40 °C)	96.6 a
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Interface

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

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

Mechanical data

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

Range/Distance

Hysteresis H max. (% of Sr)	15 %
Measuring range	0.5...5 mm
Rated operating distance Sn	5 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.

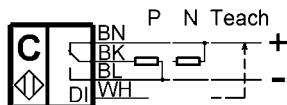
Input DI can be used for teaching the switching point. In normal operation input DI should be connected continuously to L-.

The push-pull switching outputs must not be connected in parallel.

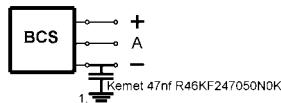
For more information about MTTF and B10d see MTTF / B10d Certificate

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



Installation remarks



1) Machine GND