

### 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

Connection	M12x1-Male, 4-pin, A-coded
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

### Electrical data

Load capacitance max. at $U_e$	220 nF
No-load current $I_o$ max. at $U_e$	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 open (NO) / NPN normally closed (NC)
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### Material

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

Capacitive Sensors  
**BCS M12K4D2-GSM50C-S04G**  
**Order Code: BCS017K**



**Mechanical data**

Dimension	Ø 12 x 60 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 S <sub>n</sub>	5 mm
Repeat accuracy max. (% of Sr)	2 %
Temperature drift max. (% of Sr)	20 %

**Remarks**

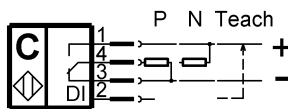
For full calibration connect input DI to L+ for 2...7 seconds. For empty calibration connect to L+ for 7..12 seconds.  
 Input DI can be used for teaching the switching point. In normal operation input DI should be connected continuously to L-.  
 The push-pull switching outputs must not be connected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

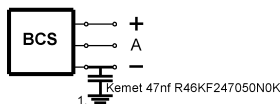
**Connector Drawings**



**Wiring Diagrams**



**Installation remarks**



1) Machine GND