



Basic features

Approval/Conformity	cULus CE UKCA 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 Ue	0.001 µF
No-load current I_o max. at Ue	15 mA
Operating voltage U_b	18...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	2
IP rating	IP67

Functional safety

MTTF (40 °C)	96.6 a
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IO-Link

IO-Link Profil IDs	0x0001 SSP0
IO-Link function classes	0x8000 Device Identification 0x8001 Binary Data Channel 0x8002 Process Data Variables 0x8003 Device Diagnosis 0x8004 Teach Commands
Supported IO-Link Profiles	Legacy Smart Sensor Profile

Capacitive Sensors
BCS M12K4D2-PIM80G-S04G
Order Code: BCS017C



Interface

Cycle time min.	5 ms
Interface	IO-Link 1.1
Switching output	Push-pull PNP normally open (NO) / NPN normally closed (NC)

Material

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

Mechanical data

Dimension	Ø 12 x 60 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-. Switching output- and function programmable using IO-Link. 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

