



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



**Basic features**

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

**Display/Operation**

<b>Function indicator</b>	yes
<b>Power indicator</b>	yes

**Electrical connection**

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

**Electrical data**

<b>No-load current I<sub>o max.</sub> at U<sub>e</sub></b>	20 mA
<b>Operating voltage U<sub>b</sub></b>	10...30 VDC
<b>Protection class</b>	II
<b>Rated insulation voltage U<sub>i</sub></b>	75 V DC
<b>Rated operating current I<sub>e</sub></b>	100 mA
<b>Rated operating voltage U<sub>e DC</sub></b>	24 V
<b>Ready delay t<sub>v max.</sub></b>	100 ms
<b>Ripple max. (% of U<sub>e</sub>)</b>	10 %
<b>Switching frequency</b>	100 Hz
<b>Utilization category</b>	DC -13
<b>Voltage drop static max.</b>	1.5 V

**Environmental conditions**

<b>Ambient temperature</b>	-25...85 °C
<b>Contamination scale</b>	1
<b>IP rating</b>	IP67

**Functional safety**

<b>MTTF (40 °C)</b>	343 a
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**Interface**

<b>Switching output</b>	NPN normally closed (NC)
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Capacitive Sensors  
BCS M12BBI1-NOC40D-EP02  
Order Code: BCS00PZ

**BALLUFF**

**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...4 mm
Rated operating distance Sn	4 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	for flush mounting
Size	M12x1
Thread (A)	M12x1
Tightening torque	1 Nm

**Remarks**

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**

