



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



**Basic features**

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

**Display/Operation**

Function indicator	yes
Power indicator	yes

**Electrical connection**

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

**Electrical data**

No-load current $I_0$ max. at $U_e$	20 mA
Operating voltage $U_b$	10...30 VDC
Protection class	II
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.	100 ms
Ripple max. (% of $U_e$ )	10 %
Switching frequency	100 Hz
Utilization category	DC -13
Voltage drop static max.	1.5 V

**Environmental conditions**

Ambient temperature	-25...85 °C
Contamination scale	1
IP rating	IP67

**Functional safety**

MTTF (40 °C)	343 a
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**Interface**

Switching output	NPN normally open (NO)
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Capacitive Sensors  
**BCS M12BBI1-NSC40D-EP02**  
Order Code: BCS00PY

**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 S <sub>n</sub>	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**

