



1) Sensing surface, 2) Housing, 3) Cover, 4) Potentiometer, 5) 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) Screwdriver Short guide
<b>Sensitivity</b>	Switching distance adjustable
<b>Series</b>	M12

**Electrical data**

<b>No-load current <math>I_0</math> max. at <math>U_e</math></b>	15 mA
<b>Operating voltage <math>U_b</math></b>	12...35 VDC
<b>Rated insulation voltage <math>U_i</math></b>	75 V DC
<b>Rated operating current <math>I_e</math></b>	200 mA
<b>Rated operating voltage <math>U_e</math> DC</b>	24 V
<b>Ripple max. (% of <math>U_e</math>)</b>	10 %
<b>Switching frequency</b>	25 Hz
<b>Utilization category</b>	DC -13
<b>Voltage drop static max.</b>	0.8 V

**Display/Operation**

<b>Function indicator</b>	yes
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**Environmental conditions**

<b>Ambient temperature</b>	-30...60 °C
<b>Contamination scale</b>	1
<b>IP rating</b>	IP65

**Electrical connection**

<b>Cable diameter D</b>	3.3 mm
<b>Cable length L</b>	2 m
<b>Conductor cross-section</b>	0.24 mm <sup>2</sup>
<b>Number of conductors</b>	3
<b>Polarity reversal protected</b>	yes
<b>Protection against device mix-ups</b>	yes
<b>Short-circuit protection</b>	yes

**Functional safety**

<b>MTTF (40 °C)</b>	595 a
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**Interface**

<b>Switching output</b>	PNP normally closed (NC)
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**Material**

<b>Cover material</b>	PTFE
<b>Housing material</b>	PTFE
<b>Material jacket</b>	PTFE
<b>Material sensing surface</b>	PTFE

Capacitive Sensors  
**BCS M12TTI1-POM60G-ET02-E**  
Order Code: BCS009K

**BALLUFF**

**Mechanical data**

Dimension	Ø 12 x 63 mm
Installation	non-flush
Size	M12x1
Thread (A)	M12x1
Tightening torque	0.5 Nm

**Range/Distance**

Hysteresis H max. (% of Sr)	15.0 %
Measuring range	1...6 mm
Rated operating distance S <sub>n</sub>	6 mm
Repeat accuracy max. (% of Sr)	2.0 %
Temperature drift max. (% of Sr)	15 %

**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**

