



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



### Basic features

|                     |  |
|---------------------|--|
| Approval/Conformity | CE<br>UKCA<br>cULus<br>WEEE            |
| Basic standard      | IEC 60947-5-2                          |
| Scope of delivery   | Nut (2x)<br>Screwdriver<br>Short guide |
| Sensitivity         | Switching distance adjustable          |
| Series              | M12                                    |

### Electrical data

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

### Display/Operation

|                    |     |
|--------------------|-----|
| Function indicator | yes |
|--------------------|-----|

### Electrical connection

|                                   |                      |
|-----------------------------------|----------------------|
| Cable diameter D                  | 3.0 mm               |
| Cable length L                    | 2 m                  |
| Conductor cross-section           | 0.24 mm <sup>2</sup> |
| Number of conductors              | 3                    |
| Polarity reversal protected       | yes                  |
| Protection against device mix-ups | yes                  |
| Short-circuit protection          | yes                  |

### Environmental conditions

|                     |             |
|---------------------|-------------|
| Ambient temperature | -30...60 °C |
| Contamination scale | 1           |
| IP rating           | IP65        |

### Functional safety

|              |       |
|--------------|-------|
| MTTF (40 °C) | 595 a |
|--------------|-------|

### Interface

|                  |                          |
|------------------|--------------------------|
| Switching output | PNP normally closed (NC) |
|------------------|--------------------------|

### Material

|                          |      |
|--------------------------|------|
| Cover material           | POM  |
| Housing material         | PTFE |
| Material jacket          | PUR  |
| Material sensing surface | PTFE |

Capacitive Sensors  
**BCS M12TTI1-POM60G-EP02**  
Order Code: BCS00EF

**BALLUFF**

**Mechanical data**

|                   |              |
|-------------------|--------------|
| Dimension         | Ø 12 x 60 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 % [-5...55 °C] |

**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**

