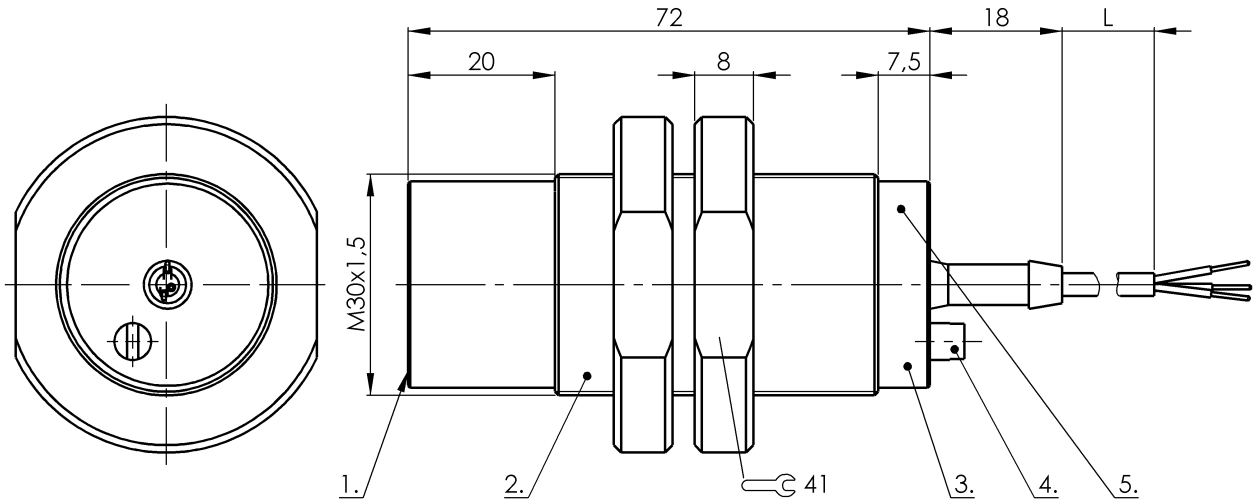
Capacitive Sensors

# BCS M30TTH2-PSCFAG-AT02
# Order Code: BCS0086




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

## Basic features

| | |
|---|---|
| Additional features | Electrically conductive media<br>Foam and residue compensation |
| Approval/Conformity | CE<br>UKCA<br>cULus<br>WEEE |
| Basic standard | IEC 60947-5-2 |
| Scope of delivery | Nut (2x) |
| Sensitivity | media-dependent, adjustable |
| Series | M30 |

## Electrical connection

| | |
|---|---|
| Cable length L | 2 m |
| Conductor cross-section | 0.20 mm² |
| Number of conductors | 3 |
| Polarity reversal protected | yes |
| Protection against device mix-ups | yes |
| Short-circuit protection | yes |

## Electrical data

| | |
|---|---|
| Operating voltage Ub | 10...35 VDC |
| Rated insulation voltage Ui | 75 V DC |
| Rated operating current Ie | 300 mA |
| Ripple max. (% of Ue) | 10 % |
| Switching frequency | 2 Hz |
| Utilization category | DC -13 |
| Voltage drop static max. | 1.8 V |

## Environmental conditions

| | |
|---|---|
| Ambient temperature | -10...60 °C |
| IP rating | IP67 |

## Functional safety

| | |
|---|---|
| MTTF (40 °C) | 221 a |

## Interface

| | |
|---|---|
| Switching output | PNP normally open (NO) |

## Material

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

## Mechanical data

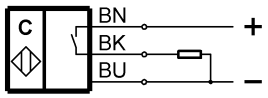
| | |
|---|---|
| Dimension | Ø 30 x 72 mm |
| Installation | non-flush |
| Size | M30x1.5 |
| Thread (A) | M30x1.5 |
| Tightening torque | 2 Nm |

## Remarks

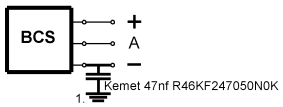
Note for using in standard applications with aqueous media: The Smart Level sensors are factory adjusted for standard applications. With this setting the Smart Level sensors can be used without further adjustment for detecting aqueous media through glass or plastic walls. The factory setting can automatically mask glass or plastic walls (approx. 0.5 mm to 6 mm) and compensate for foam, moisture and dirt buildup inside and outside the container.
Special applications: The Smart Level sensors can also be used with aqueous media in previously unsolvable and critical applications such as through glass or plastic walls thicker than 6 mm. Here the user can change the factory setting.
IP67 only with additional sealing measure at the cable entry, e.g. heat-shrink tubing
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 (Schematic)




## Installation remarks




1) Machine GND