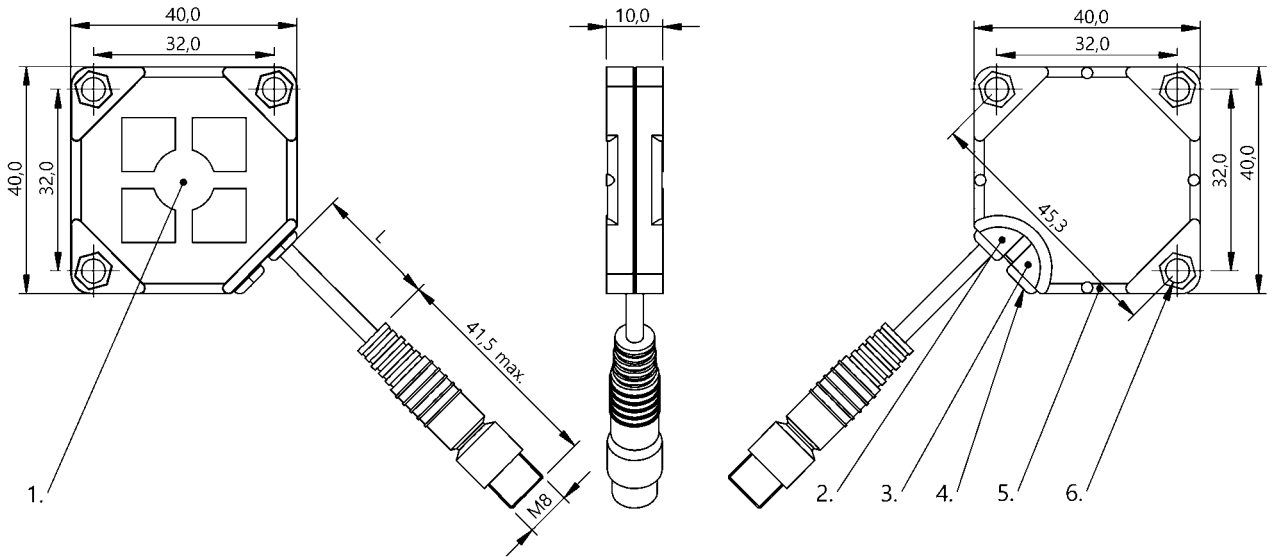
Capacitive Sensors

# BCS Q40BBAA-POCFHC-EP00,3-GS49
# Order Code: BCS0135




1) Sensing surface, 2) Power indicator green, 3) Function indicator yellow, 4) Potentiometer, 5) Fastening: Cable tie, 6) Fastening: screw 3xM3

## 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 | Installation guide<br>Screwdriver |
| Sensitivity | media-dependent, adjustable |
| Series | Q40 |

## Display/Operation

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

## Electrical connection

| | |
|---|---|
| Cable diameter D | 3.00 mm |
| Cable length L | 0.3 m |
| Connection | M8x1-Male, 3-pin |
| Polarity reversal protected | yes |
| Protection against device mix-ups | yes |
| Short-circuit protection | yes |

## Electrical data

| | |
|---|---|
| Load capacitance max. at Ue | 10 µF |
| No-load current Io max. at Ue | 11.0 mA |
| Operating voltage Ub | 10...30 VDC |
| Rated insulation voltage Ui | 75 V DC |
| Rated operating current Ie | 100 mA |
| Rated operating voltage Ue DC | 24 V |
| Ready delay tv max. | 200 ms |
| Ripple max. (% of Ue) | 10 % |
| Switching frequency | 10 Hz |
| Utilization category | DC -13 |
| Voltage drop static max. | 2.5 V |

## Environmental conditions

| | |
|---|---|
| Ambient temperature | -5...85 °C |
| Contamination scale | 3 |
| IP rating | IP67 |

## Functional safety

| | |
|---|---|
| MTTF (40 °C) | 441 a |

## Interface

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

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## Material

| | |
|---|---|
| Cover material | PBT |
| Housing material | PBT |
| Material jacket | PUR |
| Material sensing surface | PBT |

## Mechanical data

| | |
|---|---|
| Dimension | 40 x 40 x 10 mm |
| Installation | flush with container outer wall |
| Size | Block style |

## Range/Distance

| | |
|---|---|
| Temperature drift max. (% of Sr) | 20 % [-5…55 °C] |

## Remarks

The push-pull switching outputs must not be connected in parallel.
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.
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.

## Connector Drawings


## Wiring Diagrams