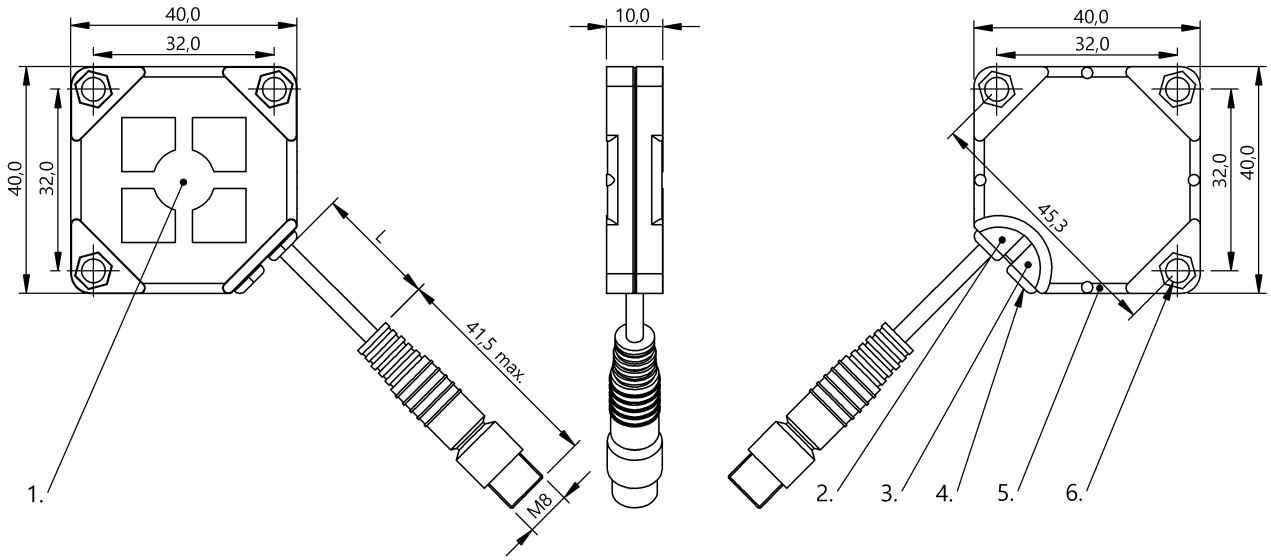
Capacitive Sensors

BCS Q40BBAA-PSCFHC-EP00,3-GS49
Order Code: BCS0134



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 Foam and residue compensation
Approval/Conformity	CE cULus WEEE UKCA
Basic standard	IEC 60947-5-2
Scope of delivery	Installation guide 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 open (NO)

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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