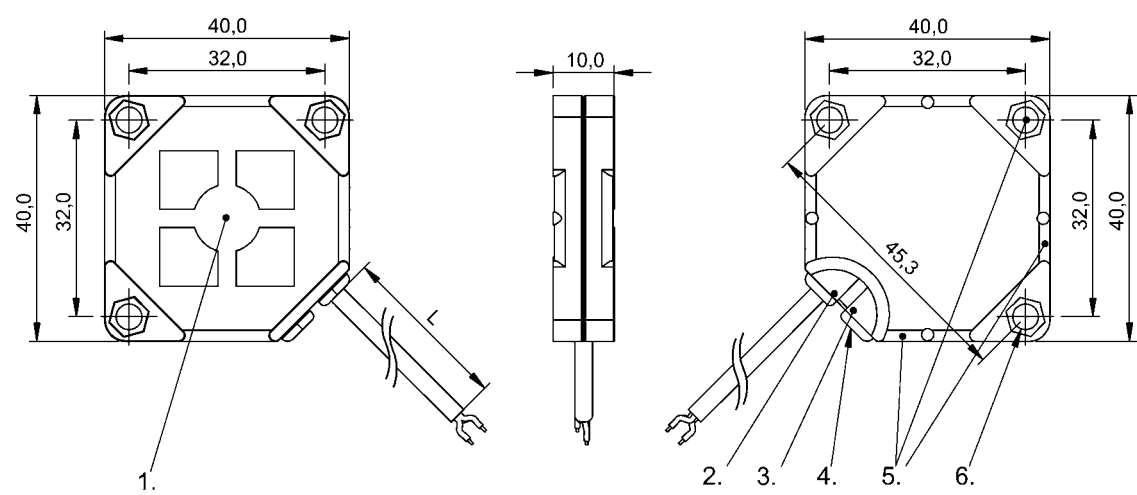


Capacitive Sensors  
BCS Q40BBAA-GPC20C-EP03  
Order Code: BCS00ZH



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



Basic features

Approval/Conformity	CE UKCA cULus WEEE
Basic standard	IEC 60947-5-2
Sensitivity	Switching distance adjustable
Series	Q40

Display/Operation

Function indicator	yes
Power indicator	yes

Electrical connection

Cable diameter D	3.00 mm
Cable length L	3 m
Conductor cross-section	0.14 mm <sup>2</sup>
Number of conductors	3
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

Electrical data

Load capacitance max. at U <sub>e</sub>	10 µF
No-load current I <sub>o</sub> max. at U <sub>e</sub>	15 mA
Operating voltage U <sub>b</sub>	10...30 VDC
Rated insulation voltage U <sub>i</sub>	75 V DC
Rated operating current I <sub>e</sub>	100 mA
Rated operating voltage U <sub>e</sub> DC	24 V
Ready delay t <sub>v</sub> max.	25 ms
Ripple max. (% of U <sub>e</sub> )	10 %
Switching frequency	100 Hz
Utilization category	DC -13
Voltage drop static max.	2.5 V

Environmental conditions

Ambient temperature	-5...85 °C
Contamination scale	1
IP rating	IP67

Functional safety

MTTF (40 °C)	195 a
--------------	-------

Interface

Switching output	PNP/NPN NO/NC programmable
------------------	----------------------------

Capacitive Sensors  
BCS Q40BBAA-GPC20C-EP03  
Order Code: BCS00ZH



Material

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

Range/Distance

Hysteresis H max. (% of Sr)	15.0 %
Measuring range	1...20 mm
Rated operating distance Sn	20 mm
Repeat accuracy max. (% of Sr)	5.0 %
Temperature drift max. (% of Sr)	20 % [-5...55 °C]

Mechanical data

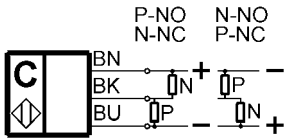
Dimension	40 x 40 x 10 mm
Installation	for flush mounting
Size	Block style

Remarks

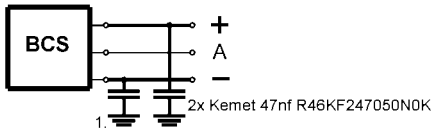
The push-pull switching outputs must not be connected in parallel.  
The potentiometer does not have a fixed stop, but can be turned endlessly without destroying anything.  
If no change in the switching signal is detected, the potentiometer should be turned forwards or backwards until a signal change 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



Installation remarks



1) Machine GND