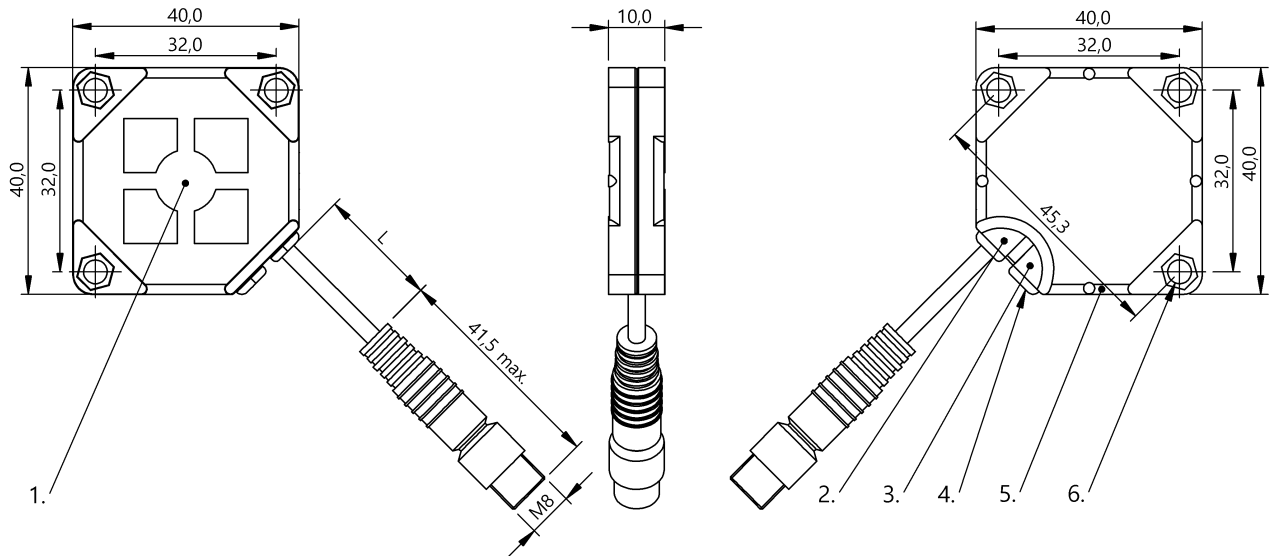


Capacitive Sensors
BCS Q40BBAA-PSC20C-EP00,3-GS49
Order Code: BCS00U6

BALLUFF



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 cULus EAC WEEE
Basic standard	IEC 60947-5-2
Sensitivity	Switching distance adjustable
Series	Q40
Trademark	Global

Display/Operation

Function indicator	yes
Power indicator	yes

Electrical connection

Cable diameter D	3.00 mm
Cable length L	0.3 m
Conductor cross-section	0.14 mm ²
Connection	M8x1-Male, 3-pin
Number of conductors	3
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 I₀ max. at Ue	15 mA
Operating voltage U_b	10...30 VDC
Rated insulation voltage U_i	75 V DC
Rated operating current I_e	100 mA
Rated operating voltage U_e DC	24 V
Ready delay t_v max.	25 ms
Ripple max. (% of U_e)	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
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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

Range/Distance

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

Mechanical data

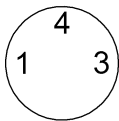
Dimension	40 x 40 x 10 mm
Installation	for flush mounting
Size	Block style

Remarks

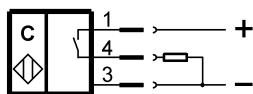
The push-pull switching outputs must not be connected in parallel.
 The potentiometer does not have a fixed stop, but can be turned endlessly without destroying anything.
 If no change in the switching signal is detected, the potentiometer should be turned forwards or backwards until a signal change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

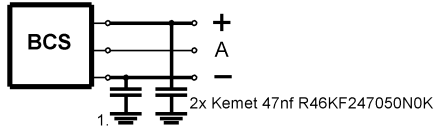
Connector Drawings



Wiring Diagrams



Installation remarks



1) Machine GND