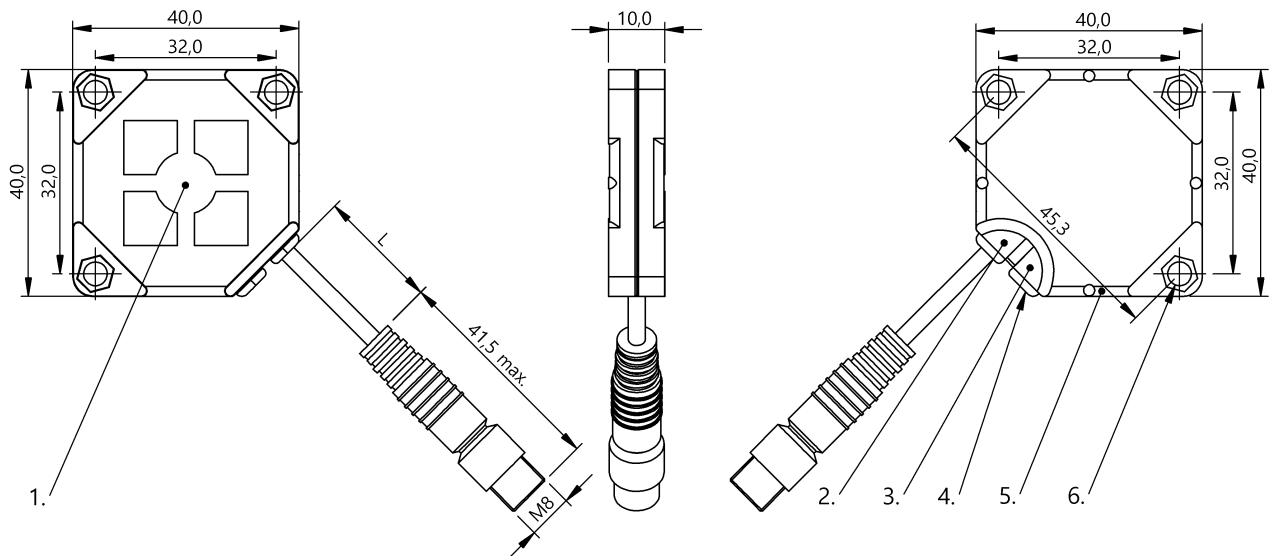


Capacitive Sensors  
**BCS Q40BBAA-PSC20C-EP00,3-GS49**  
**Order Code: BCS00U6**

**BALLUFF**



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



**Basic features**

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

**Display/Operation**

<b>Function indicator</b>	yes
<b>Power indicator</b>	yes

**Electrical connection**

<b>Cable diameter D</b>	3.00 mm
<b>Cable length L</b>	0.3 m
<b>Conductor cross-section</b>	0.14 mm <sup>2</sup>
<b>Connection</b>	M8x1-Male, 3-pin
<b>Number of conductors</b>	3
<b>Polarity reversal protected</b>	yes
<b>Protection against device mix-ups</b>	yes
<b>Short-circuit protection</b>	yes

**Electrical data**

<b>Load capacitance max. at Ue</b>	10 µF
<b>No-load current I<sub>0</sub> max. at Ue</b>	15 mA
<b>Operating voltage U<sub>b</sub></b>	10...30 VDC
<b>Rated insulation voltage U<sub>i</sub></b>	75 V DC
<b>Rated operating current I<sub>e</sub></b>	100 mA
<b>Rated operating voltage U<sub>e</sub> DC</b>	24 V
<b>Ready delay t<sub>v</sub> max.</b>	25 ms
<b>Ripple max. (% of U<sub>e</sub>)</b>	10 %
<b>Switching frequency</b>	100 Hz
<b>Utilization category</b>	DC -13
<b>Voltage drop static max.</b>	2.5 V

**Environmental conditions**

<b>Ambient temperature</b>	-5...85 °C
<b>Contamination scale</b>	1
<b>IP rating</b>	IP67

**Functional safety**

<b>MTTF (40 °C)</b>	195 a
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**Interface**

<b>Switching output</b>	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 <sub>n</sub>	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**

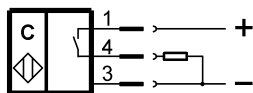
The push-pull switching outputs must not be connected in parallel.  
 The potentiometer does not have a fixed stop, but can be turned endlessly without destroying anything.  
 If no change in the switching signal is detected, the potentiometer should be turned forwards or backwards until a signal change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

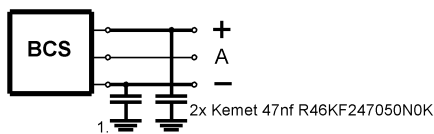
**Connector Drawings**



**Wiring Diagrams**



**Installation remarks**



1) Machine GND