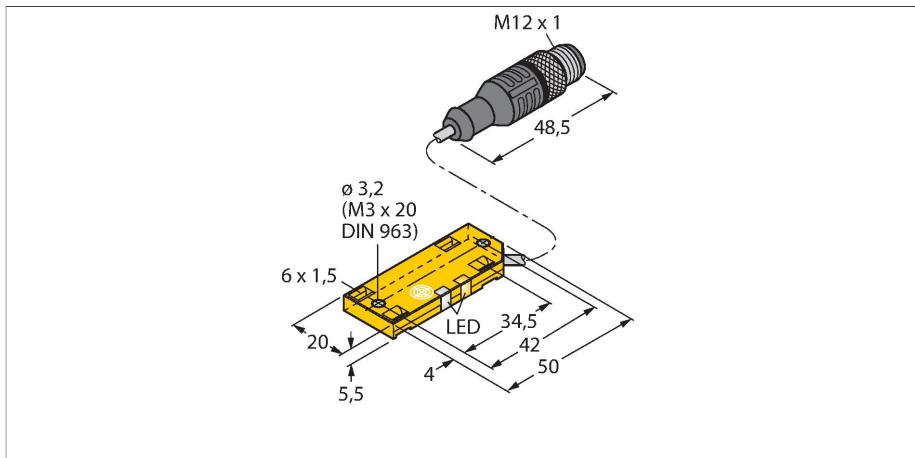


BCE10-QF5.5-AN6X2-0.3-RS4

Capacitive Sensor



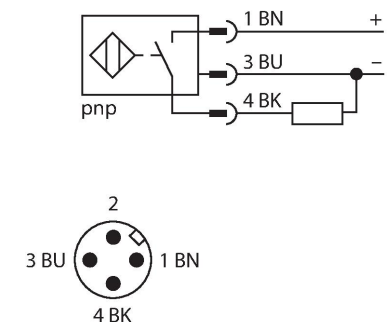
Technical data

Type	BCE10-QF5.5-AN6X2-0.3-RS4
ID	100029092
Rated switching distance (flush)	10 mm
Rated switching distance (non-flush)	10 mm
Secured operating distance	$\leq (0.72 \times S_n)$ mm
Hysteresis	1...20 %
Temperature drift	Typical 20 %
Repeat accuracy	≤ 5 % of full scale
Ambient temperature	-10...+60 °C
Electrical data	
Operating voltage U_B	10...30 VDC
Ripple U_{ss}	≤ 10 % U_{Bmax}
DC rated operating current I_o	≤ 100 mA
No-load current	≤ 15 mA
Residual current	≤ 0.1 mA
Switching frequency	0.05 kHz
Oscillation frequency	According to EN 60947-5-2, 8.2.6.2 Table 9: 0.1...2.0 MHz
Isolation test voltage	0.5 kV
Output function	3-wire, NO contact, NPN
Short-circuit protection	yes/Cyclic
Voltage drop at I_o	≤ 1.8 V
Wire break/reverse polarity protection	yes/Complete
Tests/approvals	
Approvals	UL
UL registration number	E210608

Features

- Rectangular, height 5.5 mm
- Large active face, marked for correct installation
- Plastic, PP
- Fine adjustment via potentiometer
- DC 3-wire, 10...30 VDC
- NO contact, NPN output
- Cable with M12 × 1 male connector

Wiring diagram



Functional principle

Capacitive proximity switches are designed for non-contact and wear-free detection of electrically conductive as well as non-conductive metal objects.

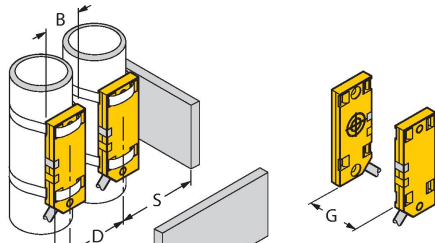
Technical data

Mechanical data	
Design	Rectangular, QF5,5
Dimensions	54 x 20.3 x 5.5 mm
Housing material	Plastic, PP
Active area material	PP
Electrical connection	Cable with connector, M12 × 1
Cable quality	Ø 3 mm, LifYY-11Y, PUR, 0.3 m
Core cross-section	3 x 0.14 mm²
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP65
MTTF	1080 years acc. to SN 29500 (Ed. 99) 40 °C
Power-on indication	LED, Green
Switching state	LED, Yellow



Mounting instructions

Product features



The technical drawing illustrates the QF5,5 sensor in two views. The isometric view on the left shows the sensor (yellow) mounted on a cylindrical object (white). Dimension lines indicate: 'D' for the distance from the mounting surface to the sensor's active area, 'W' for the sensor's width, 'S' for the sensor's depth, and 'B' for the diameter of the active area. The side view on the right shows the sensor's profile with dimension 'G' indicating the distance from the mounting surface to the sensor's base.

Distance D	40 mm
Distance W	30 mm
Distance S	30 mm
Distance G	60 mm
Diameter active area B	Ø 20 mm

The given minimum distances have been checked against the standard switching distance.
Should the sensitivity of the sensors be changed via potentiometer, the data sheet specifications no longer apply.