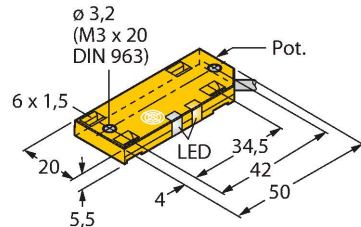


# BCE10-QF5.5-AP6X2

## Capacitive Sensor



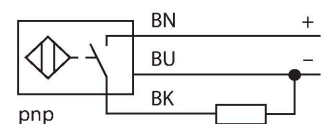
### Technical data

Type	BCE10-QF5.5-AP6X2
ID	100025146
Rated switching distance (flush)	10 mm
Rated switching distance (non-flush)	10 mm
Secured operating distance	$\leq (0.72 \times S_n) \text{ mm}$
Hysteresis	1...20 %
Repeat accuracy	$\leq 5 \%$ of full scale
Ambient temperature	-25...+70 °C
<b>Electrical data</b>	
Operating voltage $U_B$	10...30 VDC
Ripple $U_{ss}$	$\leq 10 \%$ $U_{Bmax}$
DC rated operating current $I_o$	$\leq 100 \text{ mA}$
Residual current	$\leq 0.1 \text{ mA}$
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, PNP
Short-circuit protection	yes/Cyclic
Voltage drop at $I_o$	$\leq 1.8 \text{ V}$
Wire break/reverse polarity protection	yes/Complete
<b>Tests/approvals</b>	
Approvals	UL
UL registration number	E210608
<b>Mechanical data</b>	
Design	Rectangular, QF5,5
Dimensions	54 x 20.3 x 5.5 mm

### Features

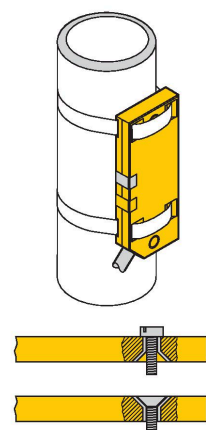
- Rectangular, height 5.5 mm
- Large active face, marked for correct installation
- Plastic, PP
- Fine adjustment via potentiometer
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- Cable connection

### Wiring diagram



### Functional principle

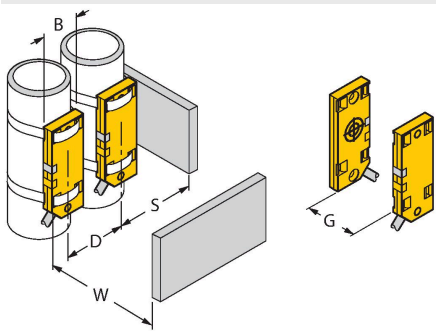
Capacitive proximity switches are designed for non-contact and wear-free detection of electrically conductive as well as non-conductive metal objects.



Technical data

Housing material	Plastic, PP
Active area material	PP
Electrical connection	Cable
Cable quality	Ø 3 mm, Lif9Y-11Y, PUR, 2 m
Core cross-section	3 x 0.14 mm <sup>2</sup>
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	
	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.