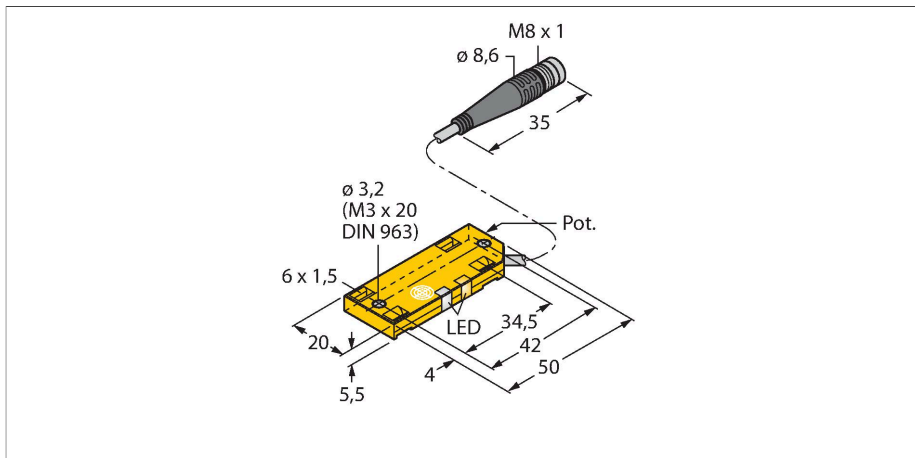


BC10-QF5.5-AP6X2-0.1-PSG4.31M

Capacitive Sensor



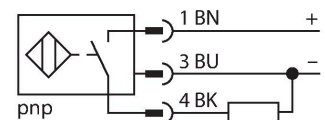
Technical data

Type	BC10-QF5.5-AP6X2-0.1-PSG4.31M
ID	2503044
Rated switching distance (flush)	10 mm
Rated switching distance (non-flush)	10 mm
Secured operating distance	$\leq (0.72 \times S_n)$
Hysteresis	1...20 %
Temperature drift	Typical 20 %
Repeat accuracy	$\leq 2 \%$ of full scale
Ambient temperature	-25...+70 °C
Electrical data	
Operating voltage	10...30 VDC
Residual ripple	$\leq 10 \% U_{ss}$
DC rated operational current	$\leq 200 \text{ mA}$
No-load current	$\leq 15 \text{ mA}$
Residual current	$\leq 0.1 \text{ mA}$
Switching frequency	0.1 kHz
Oscillation frequency	According to EN 60947-5-2, 8.2.6.2 Table 9: 0.1...2.0 MHz
Isolation test voltage	$\leq 0.5 \text{ kV}$
Output function	3-wire, NO contact, PNP
Short-circuit protection	yes / Cyclic
Voltage drop at I_o	$\leq 1.8 \text{ V}$
Wire breakage/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, PNP output
- Cable with connector, M8 × 1
- cULus listed 36GN

Wiring diagram

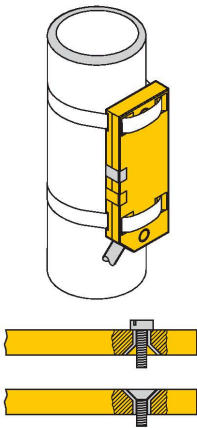


Functional principle

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, M8 × 1
Cable quality	Ø 5.2 mm, LifYY, PVC, 0.1 m
Core cross-section	4 x 0.34 mm ²
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
MTTF	1080 years acc. to SN 29500 (Ed. 99) 40 °C
Packaging unit	1 Stück
Power-on indication	LED, Green
Switching state	LED, Yellow



Mounting instructions

Product features	
The image shows two views of the sensor module. The left view is an isometric representation of the yellow rectangular module attached to a white cylindrical cable. The right view shows two side views of the module, highlighting its internal components and the way it is mounted to the cable. Dimension lines are used to indicate the following specifications: Distance D (40 mm), Distance W (30 mm), Distance S (30 mm), Distance G (60 mm), and Diameter active area B (Ø 20 mm).	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.