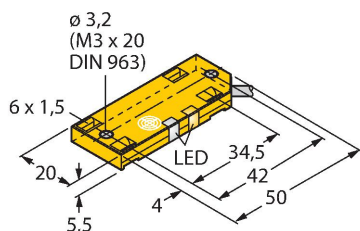


BC10-QF5.5-RN6X2/S250

Capacitive Sensor



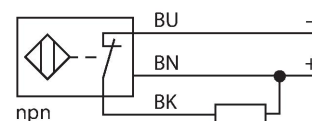
Technical data

Type	BC10-QF5.5-RN6X2/S250
ID	2620132
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	≤ 2 % of full scale
Ambient temperature	-25...+70 °C
Electrical data	
Operating voltage U_s	30 VDC
Ripple U_{rs}	≤ 10 % U_{Bmax}
DC rated operating current I_s	≤ 200 mA
No-load current	≤ 15 mA
Residual current	≤ 0.1 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	0.5 kV
Output function	3-wire, NC contact, NPN
Short-circuit protection	yes/Cyclic
Voltage drop at I_s	≤ 1.8 V
Wire break/reverse polarity protection	yes/Complete

Features

- Rectangular, height 5.5 mm
- Large active face, marked for correct installation
- Plastic, PP
- Fixed settings
- DC 3-wire, 10...30 VDC
- NC contact, NPN output
- Cable connection

Wiring diagram

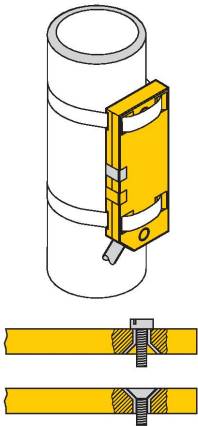


Functional principle

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

Technical data

Tests/approvals	
Approvals	UL
UL registration number	E210608
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
Cable quality	Ø 3 mm, LifYY-11Y, PUR, 2 m
Core cross-section	3 x 0.14 mm²
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
Power-on indication	LED, Green
Switching state	LED, Yellow



Mounting instructions

Product features

The technical drawing illustrates the sensor's dimensions. On the left, a side view shows two cylindrical sensors with yellow mounting brackets. Dimension 'D' is the distance between the sensor centers, 'W' is the bracket width, 'S' is the bracket thickness, and 'B' is the active area diameter. On the right, a front view shows the bracket's profile with dimension 'G' as the mounting distance.

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.