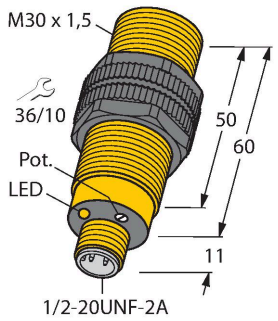
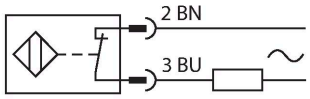
BC10-S30-RZ3X-B3131
Capacitive Sensor



Features

- M30 × 1.5 threaded barrel
- Plastic, PA12-GF30
- Fine adjustment via potentiometer
- AC 2-wire, 20…250 VAC
- NC contact
- 1/2" 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

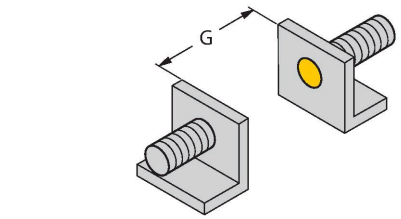
Type	BC10-S30-RZ3X-B3131
ID	2310810
Rated switching distance (flush)	10 mm
Rated switching distance (non-flush)	15 mm
Secured operating distance	≤ (0.72 × Sn)
Hysteresis	2…20 %
Temperature drift	Typical 20 %
Repeat accuracy	≤ 2 % of full scale
Ambient temperature	-25…+70 °C
Electrical data	
Operating voltage	20…250 VAC
AC rated operational current	≤ 500 mA
Frequency	≥ 50…≤ 60 Hz
Smallest operating current	≥ 5 mA
Residual current	≤ 1.7 mA
Switching frequency	0.02 kHz
Oscillation frequency	According to EN 60947-5-2, 8.2.6.2 Table 9: 0.1…2.0 MHz
Isolation test voltage	≤ 1.5 kV
Output function	2-wire, NC contact, 2-wire
Voltage drop at I_e	≤ 7 V
Tests/approvals	
Approvals	UL
UL registration number	E210608

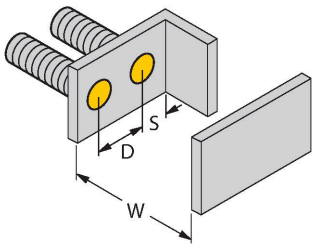
Technical data

Mechanical data	
Design	Threaded barrel, M30 x 1.5
Dimensions	60 mm
Housing material	Plastic, PA12-GF30, PEI
Active area material	PA12-GF30, yellow
Admissible pressure on front cap	≤ 3 bar
Max. tightening torque of housing nut	5 Nm
Electrical connection	Connector, 1/2"
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
Power-on indication	Green
Switching state	LED, Red

Mounting instructions

Product features





Distance D	60 mm
Distance W	30 mm
Distance S	45 mm
Distance G	60 mm
Diameter active area B	Ø 30 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.