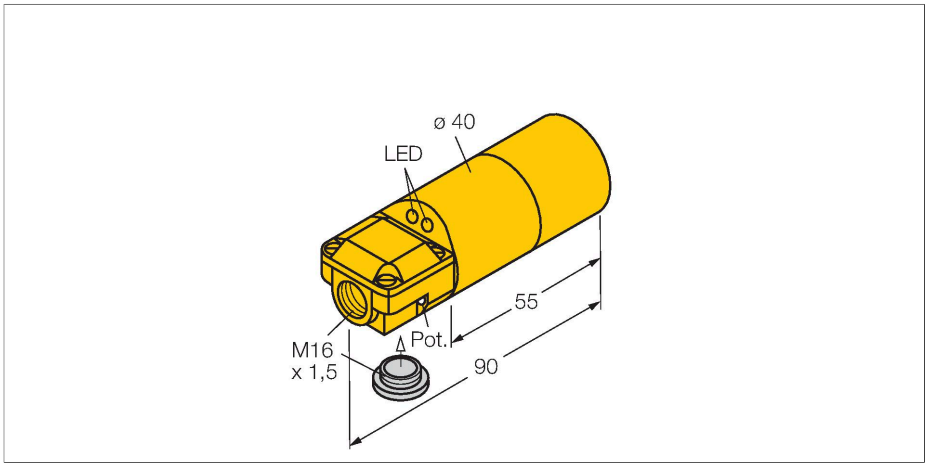
BC20-K40SR-FZ3X2
Capacitive Sensor



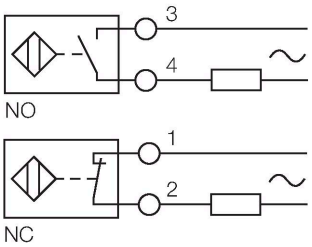
Technical data

Type	BC20-K40SR-FZ3X2
ID	23103
Rated switching distance (flush)	20 mm
Rated switching distance (non-flush)	30 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, Connection programmable, 2-wire
Voltage drop at I_e	≤ 7 V
Tests/approvals	
Mechanical data	
Design	Smooth barrel, 40 mm

Features

- 2 cable entries (axial, radial)
- Smooth barrel, Ø 40 mm
- Plastic, ABS
- Fine adjustment via potentiometer
- AC 2-wire, 20…250 VAC
- Programmable connection (NC/NO)
- Terminal chamber

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.

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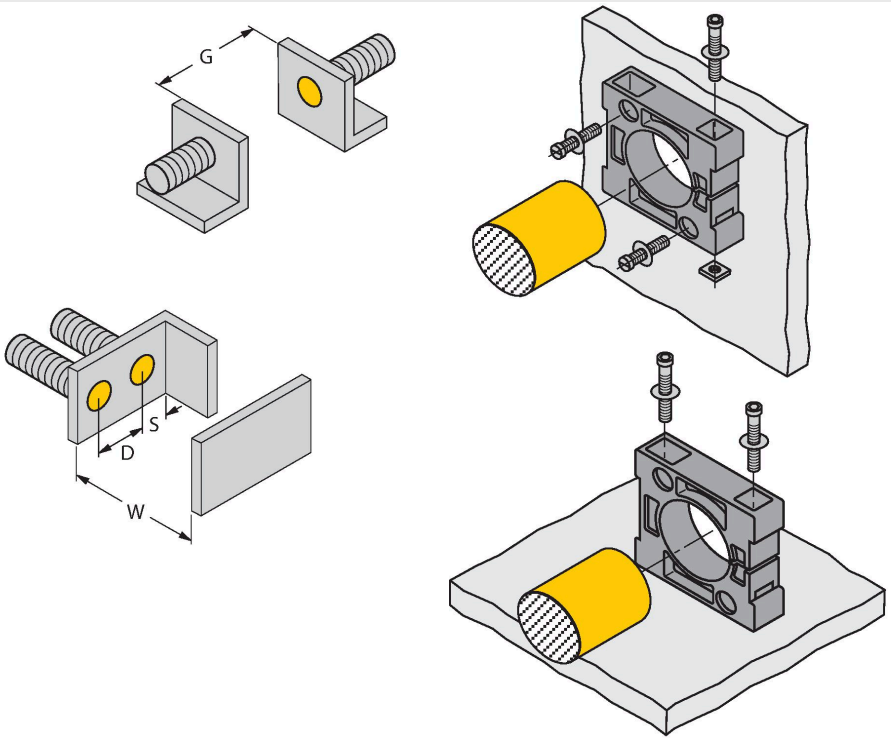
Technical data

Dimensions	90 mm
Housing material	Plastic, ABS
Active area material	ABS
Electrical connection	Terminal chamber
Clamping ability	≤ 2.5 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, Red
Included in delivery	BS40, cable gland, blanking plug

Mounting instructions

Product features



Distance D	40 mm
Distance W	60 mm
Distance S	60 mm
Distance G	120 mm
Diameter active area B	Ø 40 mm

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

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