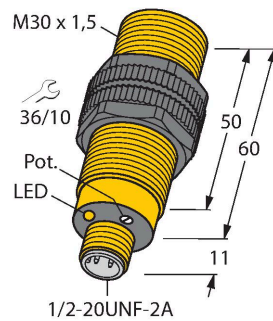


# BC10-S30-RDZ3X-B3131

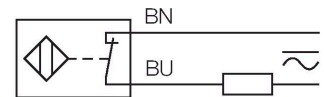
## Capacitive Sensor



### Features

- M30 × 1.5 threaded barrel
- Plastic, PA12-GF30
- Fine adjustment via potentiometer
- AC 2-wire, 20...250 VAC
- DC 2-wire, 20...320 VDC
- 1/2" connector

### Wiring diagram



### Technical data

Type	BC10-S30-RDZ3X-B3131
ID	2310820
Rated switching distance (flush)	10 mm
Rated switching distance (non-flush)	15 mm
Secured operating distance	$\leq (0.72 \times S_n)$
Hysteresis	2...20 %
Temperature drift	Typical 20 %
Repeat accuracy	$\leq 2$ % of full scale
Ambient temperature	-25...+70 °C
<b>Electrical data</b>	
Operating voltage	20...250 VAC
Operating voltage	20...320 VDC
AC rated operational current	$\leq 200$ mA
DC rated operational current	$\leq 200$ mA
Frequency	$\geq 50... \leq 60$ Hz
Smallest operating current	$\geq 3$ mA
Residual current	$\leq 1.7$ 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	$\leq 1.5$ kV
Output function	2-wire, 2-wire
Voltage drop at $I_o$	$\leq 7$ V
<b>Tests/approvals</b>	
<b>Mechanical data</b>	
Design	Threaded barrel, M30 x 1.5
Dimensions	60 mm

### Functional principle

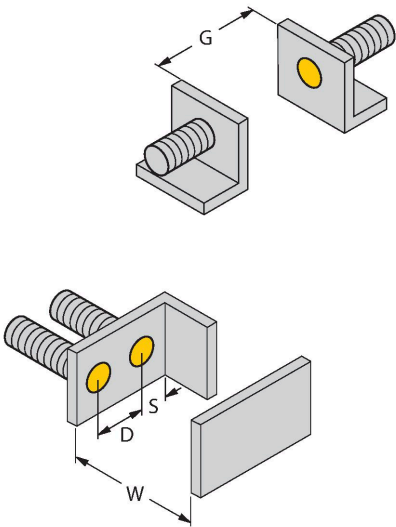
Capacitive proximity switches are designed for non-contact and wear-free detection of electrically conductive as well as non-conductive metal objects.

Technical data

Housing material	Plastic, 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

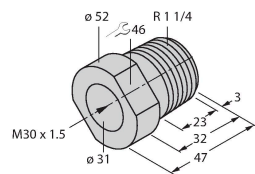


Distance D	60 mm
Distance W	30 mm
Distance S	45 mm
Distance G	60 mm
Diameter active area B	Ø 30 mm

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.

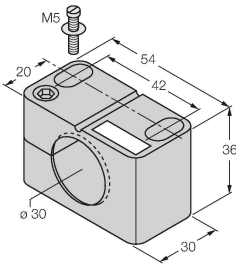
Accessories

MAP-M30 6950013



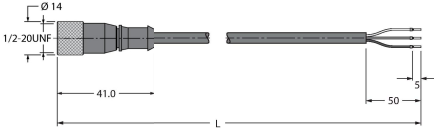
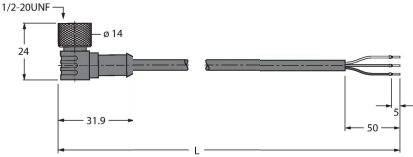
Mounting adapter; material: Polypropylene; sensor replacement with filled container possible (adapter remains in container during sensor replacement)

BST-30B 6947216



Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6

Accessories

Dimension drawing	Type	ID	
	KB 3T-2	U2411-0	Connection cable, 1/2" female, straight, 2-pin + PE, cable length: 2 m, jacket material: PVC, yellow; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a>
	WKB 3T-2	U2222-06	Connection cable, 1/2" female, angled, 2-pin + PE, cable length: 2 m, jacket material: PVC, yellow; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a>