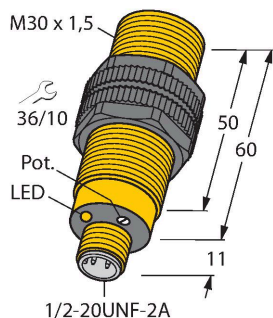


# BC10-S30-RZ3X-B3131

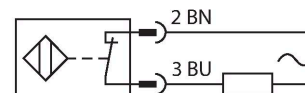
## Capacitive Sensor



### 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



### 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	$\leq (0.72 \times S_n)$
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
AC rated operational current	$\leq 500$ mA
Frequency	$\geq 50... \leq 60$ Hz
Smallest operating current	$\geq 5$ 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, NC contact, 2-wire
Voltage drop at $I_o$	$\leq 7$ V
<b>Tests/approvals</b>	
Approvals	UL
UL registration number	E210608

### Functional principle

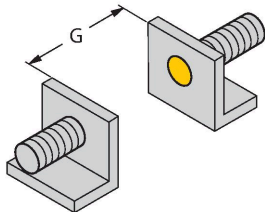
Capacitive proximity switches are designed for non-contact and wear-free detection of electrically conductive as well as non-conductive metal objects.

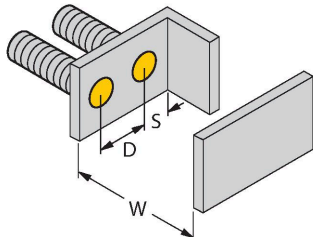
Technical data

Mechanical data	
Design	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

A 3D perspective diagram showing two identical L-shaped sensor components. Each component has a rectangular base and a vertical flange. A yellow circular sensor area is located on the vertical flange. A dimension line labeled 'G' indicates the distance between the two components.

A 3D perspective diagram showing two sensor components. The component on the left has two yellow circular sensor areas. Dimensions are indicated: 'D' is the distance between the sensor areas, 'S' is the distance from the sensor areas to the edge of the component, and 'W' is the width of the component.

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.