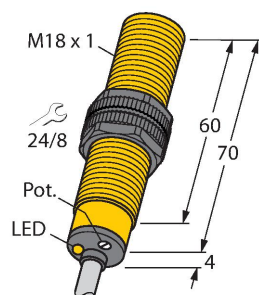


BC5-S18-RZ3X

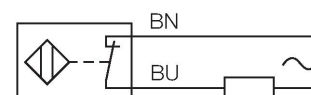
Capacitive Sensor



Features

- M18 × 1 threaded barrel
- Plastic, PA12-GF30
- Fine adjustment via potentiometer
- AC 2-wire, 20...250 VAC
- NC contact
- Cable connection

Wiring diagram



Technical data

Type	BC5-S18-RZ3X
ID	2305400
Rated switching distance (flush)	5 mm
Rated switching distance (non-flush)	7.5 mm
Secured operating distance	$\leq (0.72 \times S_n)$
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	$\geq 50... \leq 60$ 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_o	≤ 7 V
Tests/approvals	
Approvals	UL
UL registration number	E210608

Functional principle

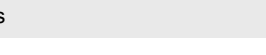
Capacitive proximity switches are designed for non-contact and wear-free detection of electrically conductive as well as non-conductive metal objects.

Technical data

Mechanical data	
Design	Threaded barrel, M18 x 1
Dimensions	74 mm
Housing material	Plastic, PA12-GF30, PEI
Active area material	PA12-GF30, yellow
Admissible pressure on front cap	≤ 6 bar
Max. tightening torque of housing nut	2 Nm
Electrical connection	Cable
Cable quality	Ø 5.2 mm, LifYY, PVC, 2 m
Core cross-section	2 x 0.34 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	Green
Switching state	LED, Red

Mounting instructions

Product features

The image shows two isometric views of a sensor component. The top view shows a rectangular base with a circular active area in the center, highlighted in yellow. A dimension line labeled 'G' indicates the distance from the top edge of the base to the center of the active area. The bottom view shows the side profile of the component, which has a U-shaped mounting flange. Dimension lines indicate 'D' as the total height, 'W' as the width of the base, 'S' as the height of the mounting flange, and 'B' as the diameter of the active area.

Distance D	36 mm
Distance W	15 mm
Distance S	27 mm
Distance G	30 mm
Diameter active area B	Ø 18 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.