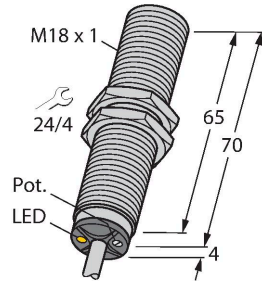# BC5-M18-RZ3X
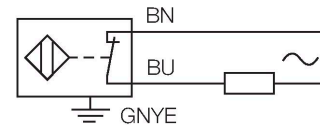# Capacitive Sensor

Features

- M18 × 1 threaded barrel
- Chrome-plated brass
- Fine adjustment via potentiometer
- AC 2-wire, 20…250 VAC
- NC contact
- Cable connection

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	BC5-M18-RZ3X
ID	2305100
Rated switching distance (flush)	5 mm
Rated switching distance (non-flush)	5 mm
Secured operating distance	≤ (0.72 × Sn) mm
Hysteresis	2…20 %
Temperature drift	Typical 20 %
Repeat accuracy	≤ 2 % of full scale
Ambient temperature	-25…+70 °C
Electrical data	
Operating voltage U_B	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, M18 x 1
Dimensions	74 mm
Housing material	Metal, CuZn, Chrome-plated
Active area material	PBT-GF30-V0, yellow
Admissible pressure on front cap	≤ 4 bar
Max. tightening torque of housing nut	25 Nm
Electrical connection	Cable
Cable quality	Ø 5.2 mm, LifYY, PVC, 2 m
Core cross-section	3 x 0.5 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	Green
Switching state	LED, Red

Mounting instructions

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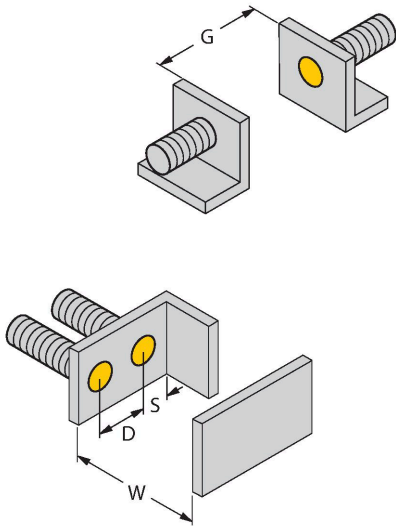
Distance D	36 mm
Distance W	15 mm
Distance S	27 mm
Distance G	30 mm
Diameter active area B	Ø 18 mm

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.