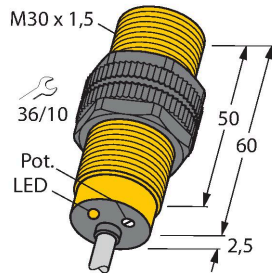


BCE10-S30-VN6X

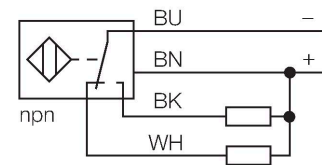
Capacitive Sensor – With Potentiometer



Features

- M30 × 1.5 threaded barrel
- Plastic, PA12-GF30
- Fine adjustment via potentiometer
- DC 4-wire, 10...30 VDC
- Complementary contact, NPN output
- 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	BCE10-S30-VN6X
ID	100026661
Rated switching distance (flush)	10 mm
Rated switching distance (non-flush)	15 mm
Secured operating distance	$\leq (0.72 \times S_n)$ mm
Hysteresis	1...20 %
Temperature drift	Typical 20 %
Repeat accuracy	≤ 5 % of full scale
Ambient temperature	-10...+60 °C
Electrical data	
Operating voltage U_s	30 VDC
Ripple U_{rs}	≤ 10 % U_{Bmax}
DC rated operating current I_s	≤ 100 mA
No-load current	≤ 15 mA
Residual current	≤ 0.1 mA
Switching frequency	0.05 kHz
Oscillation frequency	According to EN 60947-5-2, 8.2.6.2 Table 9: 0.1...2.0 MHz
Isolation test voltage	0.5 kV
Output function	4-wire, Complementary contact, NPN
Short-circuit protection	yes/Cyclic
Voltage drop at I_s	≤ 1.8 V
Wire break/reverse polarity protection	yes/Complete

Technical data

Tests/approvals	
Approvals	UL
UL registration number	E210608
Mechanical data	
Design	Threaded barrel, M30 x 1.5
Dimensions	62.5 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	Cable
Cable quality	Ø 5.2 mm, LifYY, PVC, 2 m
Core cross-section	4 x 0.34 mm ²
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP65
MTTF	1080 years acc. to SN 29500 (Ed. 99) 40 °C
Switching state	LED, Yellow

Mounting instructions

Product features

An isometric diagram showing two sensors. The sensor on the right is a square plate with a yellow circular active area in the center and a threaded rod protruding from its top. The sensor on the left is a rectangular plate with a threaded rod protruding from its top. A double-headed arrow labeled 'G' indicates the distance between the top surfaces of the two sensors.

An isometric diagram showing a sensor with two yellow circular active areas. A double-headed arrow labeled 'D' indicates the distance between the centers of the two active areas. A double-headed arrow labeled 'S' indicates the distance from the center of the right active area to the right edge of the sensor plate. A double-headed arrow labeled 'W' indicates the width of the sensor plate. A separate rectangular plate is shown to the right of the sensor.

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.