# Capacitive sensor
# BC10-S30-VN4X

**TURCK** *works*

Industrial
Automation



- ■ **M30 × 1.5 threaded barrel**
- ■ **Plastic, PA12-GF30**
- ■ **Fine adjustment via potentiometer**
- ■ **DC 4-wire, 10-65 VDC**
- ■ **Complementary contact, NPN output**
- ■ **Cable connection**

## Wiring Diagram
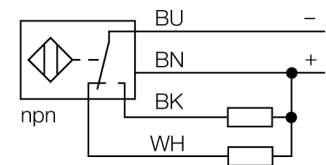


## Functional principle

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

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|---|---|
| **Type designation** | BC10-S30-VN4X |
| Ident-No. | 2506000 |

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|---|---|
| **Rated switching distance Sn** | 15 mm |
| Mounting conditions | Flush |
| Secured operating distance | $\leq$ (0.72 x Sn) mm |
| Repeat accuracy | $\leq$ 2 % of full scale |
| Temperature drift | type 20 % |
| Hysteresis | 2…20 % |
| Ambient temperature | -25…+70 °C |

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|---|---|
| **Operating voltage** | 10…65 VDC |
| Residual ripple | $\leq$ 10 % $U_{ss}$ |
| DC rated operational current | $\leq$ 200 mA |
| No-load current $I_0$ | $\leq$ 15 mA |
| Residual current | $\leq$ 0.1 mA |
| Isolation test voltage | $\leq$ 0.5 kV |
| Short-circuit protection | yes/ Cyclic |
| Voltage drop at $I_e$ | $\leq$ 1.8 V |
| Wire breakage/Reverse polarity protection | yes/ Complete |
| Output function | 4-wire, Complementary contact, NPN |
| Switching frequency | 0.1 kHz |

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|---|---|
| **Approvals** | UL |

| | |
|---|---|
| **Design** | Threaded barrel,M30 × 1.5 |
| Dimensions | 62.5 mm |
| Housing material | Plastic, PA12-GF30, PEI |
| Active area material | Plastic, PA12-GF30, yellow |
| End cap | Plastic, PA |
| Admissible pressure on front cap | $\leq$ 3 bar |
| Max. tightening torque housing nut | 5 Nm |
| Electrical connection | Cable |
| Cable quality | 5.2mm, LifYY, PVC, 2 |
| Cable cross section | 4 x 0.34 mm$^2$ |
| 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 |
| Packaging unit | 1 |

| | |
|---|---|
| **Switching state** | LED,Yellow |

# Capacitive sensor
## BC10-S30-VN4X

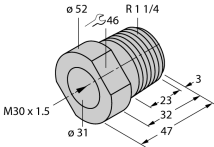| Mounting instructions/Description | minimum distances |
|---|---|
| Distance D | 60 mm |
| Distance W | 30 mm |
| Distance S | 45 mm |
| Distance G | 60 mm |
| **Diameter active area B** | Ø 30 mm |
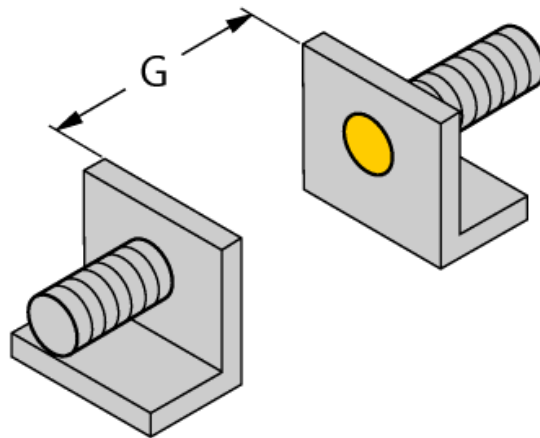
The given minimum distances have been checked against the standard switching distance.
Should the sensitivity of the sensors be changed via potentiometer, the data sheet specifications no longer apply.

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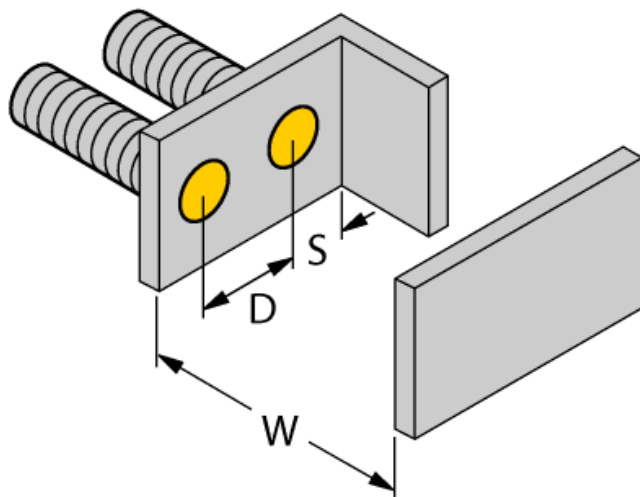
## Accessories

| Type code | Ident-No. | Description | |
|---|---|---|---|
| MAP-M30 | 6950013 | Mounting adapter; material: Polypropylene; sensor replacement with filled container possible (adapter remains in container during sensor replacement) | |
| BST-30B | 6947216 | Fixing clamp for threaded barrel devices, with dead-stop; material: PA6 | |

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