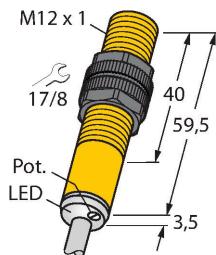


BC3-S12-AN6X

Capacitive Sensor



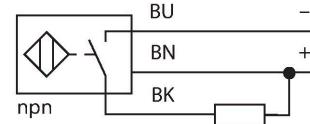
Technical data

| | |
|---|---|
| Type | BC3-S12-AN6X |
| ID | 2601300 |
| Rated switching distance (flush) | 3 mm |
| Rated switching distance (non-flush) | 4.5 mm |
| Secured operating distance | $\leq (0.72 \times S_n)$ |
| Hysteresis | 1...20 % |
| Temperature drift | Typical 20 % |
| Repeat accuracy | ≤ 2 % of full scale |
| Ambient temperature | -25...+70 °C |
| Electrical data | |
| Operating voltage | 10...30 VDC |
| Residual ripple | ≤ 10 % U_{ss} |
| DC rated operational current | ≤ 200 mA |
| No-load current | ≤ 15 mA |
| Residual current | ≤ 0.1 mA |
| Switching frequency | 0.1 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 | 3-wire, NO contact, NPN |
| Short-circuit protection | yes / Cyclic |
| Voltage drop at I_o | ≤ 1.8 V |
| Wire breakage/Reverse polarity protection | yes / Complete |

Features

- M12 x 1 threaded barrel
- Plastic, PA12-GF30
- Fine adjustment via potentiometer
- DC 3-wire, 10...30 VDC
- NO 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.

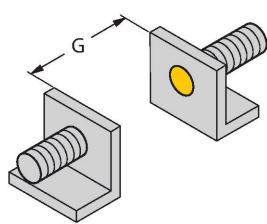
Technical data

Tests/approvals

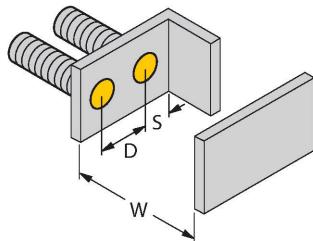
| | |
|---------------------------------------|--|
| Approvals | UL |
| UL registration number | E210608 |
| Mechanical data | |
| Design | Threaded barrel, M12 x 1 |
| Housing material | Plastic, PA12-GF30 |
| Active area material | PA12-GF30 |
| Admissible pressure on front cap | ≤ 8 bar |
| Max. tightening torque of housing nut | 1 Nm |
| Electrical connection | Cable |
| Cable quality | Ø 4 mm, LiYY, PVC, 2 m |
| Core cross-section | 3 x 0.25 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 |
| Power-on indication | Green |
| Switching state | LED, Yellow |

Mounting instructions

Product features



| | |
|------------------------|---------|
| Distance D | 24 mm |
| Distance W | 9 mm |
| Distance S | 18 mm |
| Distance G | 18 mm |
| Diameter active area B | Ø 12 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.