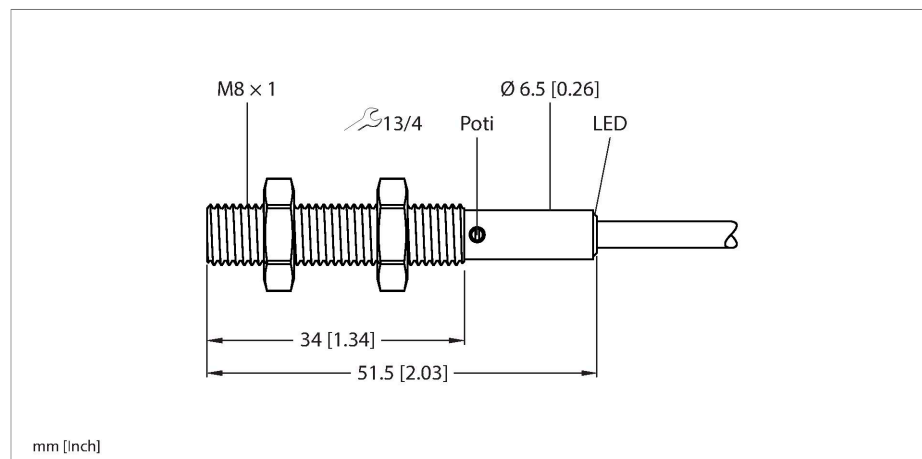


BC2-EM08-UP8X Capacitive Sensor



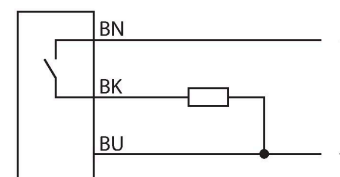
Technical data

| | |
|--|---------------------------------|
| Type | BC2-EM08-UP8X |
| ID | 100021821 |
| Rated switching distance (flush) | 2 mm |
| Hysteresis | 10...20 % |
| Ambient temperature | -25...+70 °C |
| Medium temperature | -25...+70 °C |
| Electrical data | |
| Operating voltage U_B | 18...30 VDC |
| DC rated operating current I_o | ≤ 100 mA |
| No-load current | ≤ 15 mA |
| Switching frequency | 0.1 kHz |
| Isolation test voltage | 0.5 kV |
| Number of digital outputs | 1 |
| Output function | 3-wire, NO/NC (NO pre-set), PNP |
| Short-circuit protection | yes |
| Voltage drop at I_o | ≤ 2.4 V |
| Wire break/reverse polarity protection | yes/Complete |
| Insulation class | III |
| Tests/approvals | |
| Mechanical data | |
| Design | Threaded barrel, M8 x 1 |
| Dimensions | 51.5 mm |
| Housing material | Stainless steel |

Features

- M8 × 1 threaded barrel
- Stainless steel housing, probe made of PBT
- Fine adjustment via potentiometer
- DC 3-wire, 18...30 VDC
- Adjustable NC/NO contact
- Factory-set NO contact
- 3-pin cable connection, open strands

Wiring diagram



Functional principle

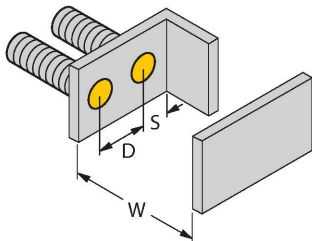
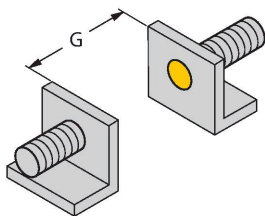
Capacitive proximity switches are designed for non-contact and wear-free detection of electrically conductive as well as non-conductive metal objects.

Technical data

| | |
|-----------------------|--|
| Active area material | PBT, yellow |
| Electrical connection | Cable |
| Cable quality | Ø 3.4 mm, PUR, 2 m |
| Core cross-section | 3 x 0.14 mm ² |
| 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 16 mm

Distance W 8 mm

Distance S 12 mm

Distance G 16 mm

Diameter active area B Ø 8 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.

LED status indicators

| LED | Meaning |
|--------------------|--|
| Yellow | Operating mode NO: Object detected |
| | Operating mode NC: Object not detected |
| Flashes yellow 1 × | Potentiometer counterclockwise: |
| | Sensor at minimum switching distance |
| | Potentiometer clockwise: |
| Flashes yellow 3 × | Sensor at maximum switching distance |
| | NO/NC switching successful |

For a detailed description of the NO/NC switching, see Quick Start Guide BC2-EM08-Ux8X... (100034228.pdf)