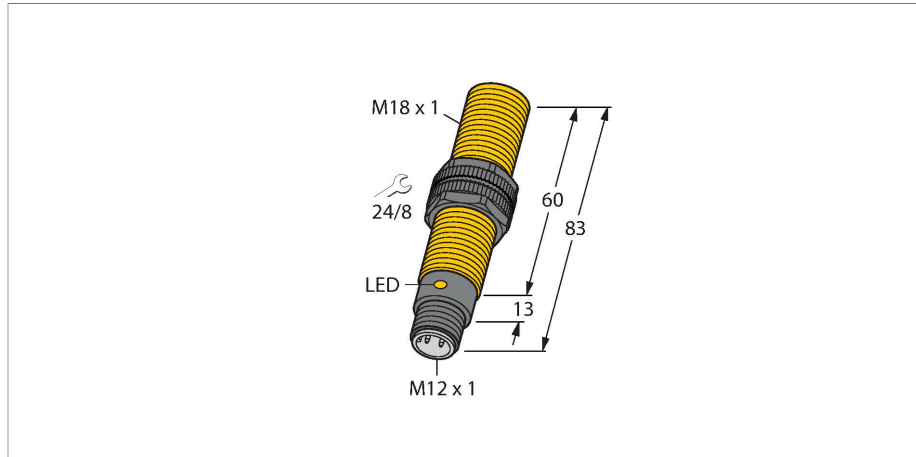


# BC5-S18-AP4X-H1141/S250

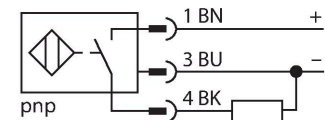
## Capacitive Sensor



### Features

- M18 × 1 threaded barrel
- Plastic, PA12-GF30
- Fixed settings
- DC 3-wire, 10...65 VDC
- NO contact, PNP output
- M12 × 1 connector

### Wiring diagram



### Functional principle

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

Flush mounting may result in a change of switching behaviour.

### Technical data

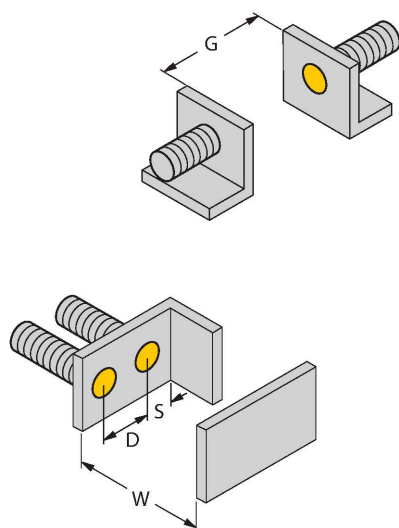
|   |   |
|---|---|
| Type                                      | BC5-S18-AP4X-H1141/S250                                   |
| ID  | 2503602   |
| Rated switching distance (flush)          | 5 mm  |
| Rated switching distance (non-flush)      | 5 mm  |
| Secured operating distance                | ≤ (0.72 × Sn)   |
| Hysteresis                                | 1...20 %  |
| Temperature drift                         | Typical 20 %  |
| Repeat accuracy                           | ≤ 2 % of full scale                                       |
| Ambient temperature                       | -25...+70 °C  |
| <b>Electrical data</b>                    |   |
| Operating voltage                         | 65 VDC  |
| Residual ripple                           | ≤ 10 % U <sub>ss</sub>                                    |
| 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, PNP                                   |
| Short-circuit protection                  | yes / Cyclic  |
| Voltage drop at I <sub>a</sub>            | ≤ 1.8 V   |
| Wire breakage/Reverse polarity protection | yes / Complete  |

## Technical data

| Tests/approvals                       |  |
|---------------------------------------|--|
| Approvals                             | UL   |
| UL registration number                | E210608                                    |
| Mechanical data                       |  |
| Design                                | Threaded barrel, M18 x 1                   |
| Dimensions                            | 83 mm                                      |
| Housing material                      | Plastic, PA12-GF30, PEI                    |
| Active area material                  | PA12-GF30, yellow                          |
| Admissible pressure on front cap      | ≤ 6 bar                                    |
| Max. tightening torque of housing nut | 2 Nm                                       |
| Electrical connection                 | Connector, M12 × 1                         |
| 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             | 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.