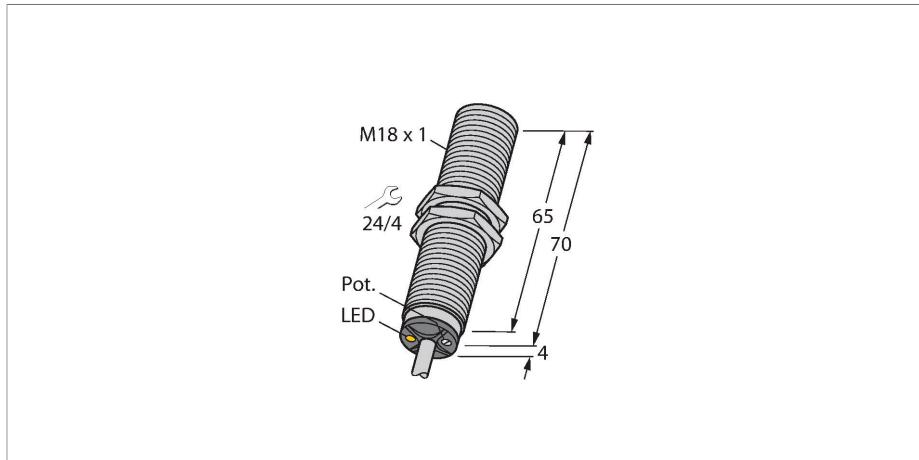


# BC5-M18-RP4X

## Capacitive Sensor



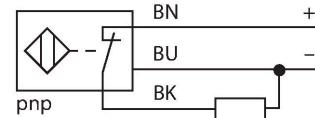
### Technical data

|   |                              |
|---|------------------------------|
| Type                                      | BC5-M18-RP4X                 |
| Ident. no.                                | 2504026                      |
| Rated switching distance (flush)          | 5 mm                         |
| Rated switching distance (non-flush)      | 5 mm                         |
| Secured operating distance                | $\leq (0.72 \times S_n)$     |
| Hysteresis                                | 2...20 %                     |
| Temperature drift                         | type 20 %                    |
| Repeat accuracy                           | $\leq 2$ % of full scale     |
| Ambient temperature                       | -25...+70 °C                 |
| Electrical data                           |                              |
| Operating voltage                         | 10...65 VDC                  |
|   | 10...30 VDC for use in China |
| Residual ripple                           | $\leq 10$ % $U_{ss}$         |
| DC rated operational current              | $\leq 200$ mA                |
| No-load current                           | $\leq 15$ mA                 |
| Residual current                          | $\leq 0.1$ mA                |
| Switching frequency                       | 0.1 kHz                      |
| Isolation test voltage                    | $\leq 0.5$ kV                |
| Output function                           | 3-wire, NC contact, PNP      |
| Short-circuit protection                  | yes / Cyclic                 |
| Voltage drop at $I_o$                     | $\leq 1.8$ V                 |
| Wire breakage/Reverse polarity protection | yes / Complete               |
| Approvals                                 | UL                           |

### Features

- M18 x 1 threaded barrel
- Chrome-plated brass
- Fine adjustment via potentiometer
- DC 3-wire, 10...65 VDC
- NC contact, PNP 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.

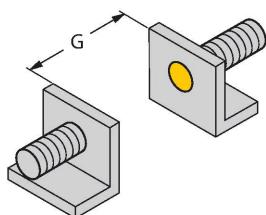
## Technical data

### Mechanical data

|                                       |  |
|---------------------------------------|--|
| Design                                | Threaded barrel, M18 x 1                   |
| Dimensions                            | 74 mm                                      |
| Housing material                      | Metal, CuZn, Chrome-plated                 |
| Active area material                  | PBT-GF30-V0, yellow                        |
| Admissible pressure on front cap      | ≤ 4 bar                                    |
| Max. tightening torque of housing nut | 25 Nm                                      |
| Electrical connection                 | Cable                                      |
| Cable quality                         | Ø 5.2 mm, LifYY, PVC, 2 m                  |
| Core cross-section                    | 3 x 0.34 mm <sup>2</sup>                   |
| 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 |
| Switching state                       | LED, Yellow                                |

## Mounting instructions

### Product features



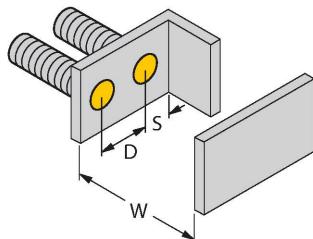
Distance D 36 mm

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.