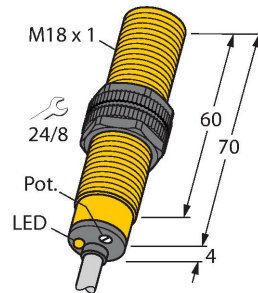


# BC5-S18-AZ3X

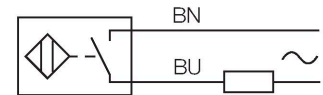
## Capacitive Sensor



### Features

- M18 × 1 threaded barrel
- Plastic, PA12-GF30
- Fine adjustment via potentiometer
- AC 2-wire, 20...250 VAC
- NO contact
- Cable connection

### Wiring diagram



### Technical data

|                                      |                                                           |
|--------------------------------------|-----------------------------------------------------------|
| Type                                 | BC5-S18-AZ3X                                              |
| ID                                   | 2305500                                                   |
| Rated switching distance (flush)     | 5 mm                                                      |
| Rated switching distance (non-flush) | 7.5 mm                                                    |
| Secured operating distance           | $\leq (0.72 \times S_n)$ mm                               |
| Hysteresis                           | 2...20 %                                                  |
| Temperature drift                    | Typical 20 %                                              |
| Repeat accuracy                      | $\leq 2$ % of full scale                                  |
| Ambient temperature                  | -25...+70 °C                                              |
| <b>Electrical data</b>               |                                                           |
| Operating voltage $U_B$              | 20...250 VAC                                              |
| AC rated operational current         | $\leq 500$ mA                                             |
| Frequency                            | $\geq 50... \leq 60$ Hz                                   |
| Smallest operating current           | $\geq 5$ mA                                               |
| Residual current                     | $\leq 1.7$ mA                                             |
| Switching frequency                  | 0.02 kHz                                                  |
| Oscillation frequency                | According to EN 60947-5-2, 8.2.6.2 Table 9: 0.1...2.0 MHz |
| Isolation test voltage               | 1.5 kV                                                    |
| Output function                      | 2-wire, NO contact, 2-wire                                |
| Voltage drop at $I_e$                | $\leq 7$ V                                                |
| <b>Tests/approvals</b>               |                                                           |
| <b>Mechanical data</b>               |                                                           |
| Design                               | Threaded barrel, M18 x 1                                  |
| Dimensions                           | 74 mm                                                     |
| Housing material                     | Plastic, PA12-GF30, PEI                                   |
| Active area material                 | PA12-GF30, yellow                                         |

### Functional principle

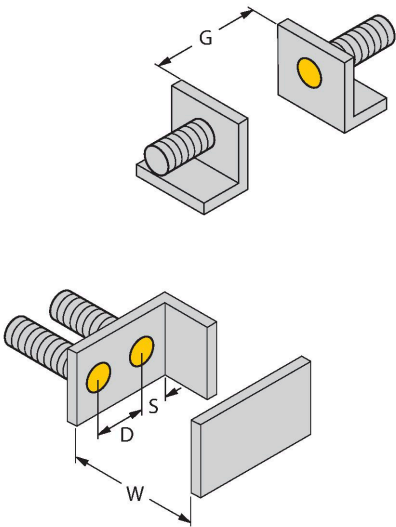
Capacitive proximity switches are designed for non-contact and wear-free detection of electrically conductive as well as non-conductive metal objects.

Technical data

|                                       |                                            |
|---------------------------------------|--------------------------------------------|
| Admissible pressure on front cap      | ≤ 6 bar                                    |
| Max. tightening torque of housing nut | 2 Nm                                       |
| Electrical connection                 | Cable                                      |
| Cable quality                         | Ø 5.2 mm, LifYY, PVC, 2 m                  |
| Core cross-section                    | 2 x 0.34 mm²                               |
| 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, Red                                   |

Mounting instructions

Product features



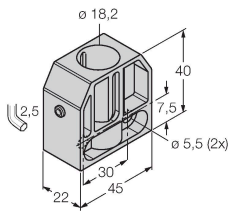
|                        |         |
|------------------------|---------|
| Distance D             | 36 mm   |
| Distance W             | 15 mm   |
| Distance S             | 27 mm   |
| Distance G             | 30 mm   |
| Diameter active area B | Ø 18 mm |

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.

Accessories

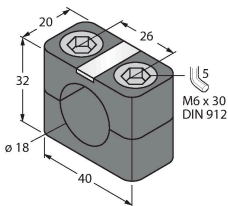
BS 18 69471

Mounting clamp for threaded barrel sensors; material: PA66-GF



BSN 18 69472

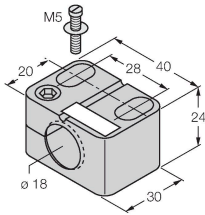
Mounting clamp for threaded barrel sensors; material: PA66-GF



**BST-18B**

6947214

Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6



**MAP-M18**

6950012

Mounting adapter; material: Polypropylene; sensor replacement with filled container possible (adapter remains in container during sensor replacement)

