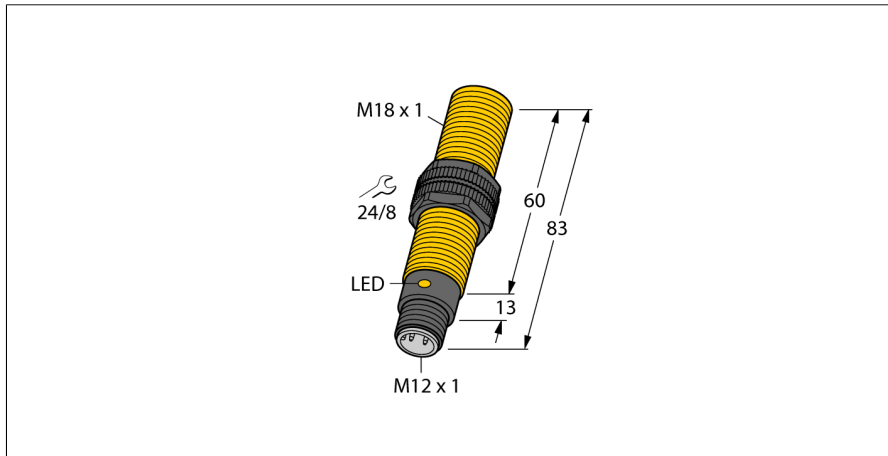


# Capacitive sensor

## BC5-S18-AN4X-H1141/S250

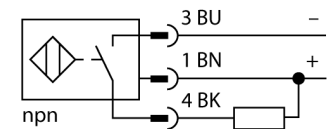
**TURCK**  
works

Industrial  
Automation



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

### 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.

Flush mounting may result in a change of switching behaviour.

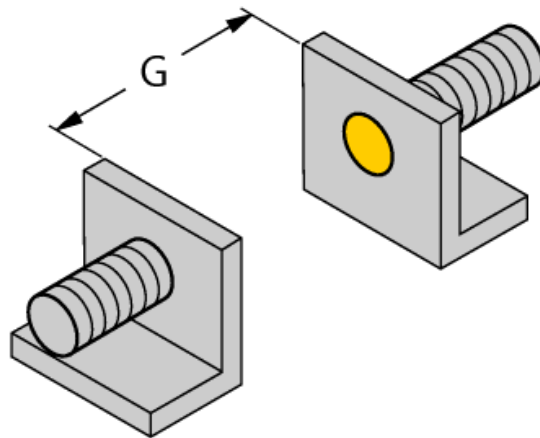
|   |  |
|---|--|
| <b>Type designation</b>                   | BC5-S18-AN4X-H1141/S250                    |
| Ident-No.                                 | 2503108                                    |
| <b>Rated switching distance (flush)</b>   | 5 mm                                       |
| Rated switching distance (non-flush)      | 5 mm                                       |
| Secured operating distance                | ≤ (0.72 × S <sub>n</sub> ) mm              |
| Hysteresis                                | 2...20 %                                   |
| Temperature drift                         | type 20 %                                  |
| Repeat accuracy                           | ≤ 2 % of full scale                        |
| Ambient temperature                       | -25...+70 °C                               |
| <b>Operating voltage</b>                  | 10...65 VDC                                |
| Residual ripple                           | ≤ 10 % U <sub>is</sub>                     |
| DC rated operational current              | ≤ 200 mA                                   |
| No-load current I <sub>0</sub>            | ≤ 15 mA                                    |
| Residual current                          | ≤ 0.1 mA                                   |
| Switching frequency                       | 0.1 kHz                                    |
| Isolation test voltage                    | ≤ 0.5 kV                                   |
| Output function                           | 3-wire, NO contact, NPN                    |
| Short-circuit protection                  | yes/ Cyclic                                |
| Voltage drop at I <sub>0</sub>            | ≤ 1.8 V                                    |
| Wire breakage/Reverse polarity protection | yes/ Complete                              |
| <b>Approvals</b>                          | UL   |
| <b>Design</b>                             | Threaded barrel, M18 × 1                   |
| Dimensions                                | 83 mm                                      |
| Housing material                          | Plastic, PA12-GF30, PEI                    |
| Active area material                      | Plastic, PA12-GF30, yellow                 |
| Admissible pressure on front cap          | ≤ 6 bar                                    |
| Max. tightening torque 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 |
| Packaging unit                            | 1  |
| <b>Switching state</b>                    | LED, Yellow                                |

**Capacitive sensor**  
**BC5-S18-AN4X-H1141/S250**

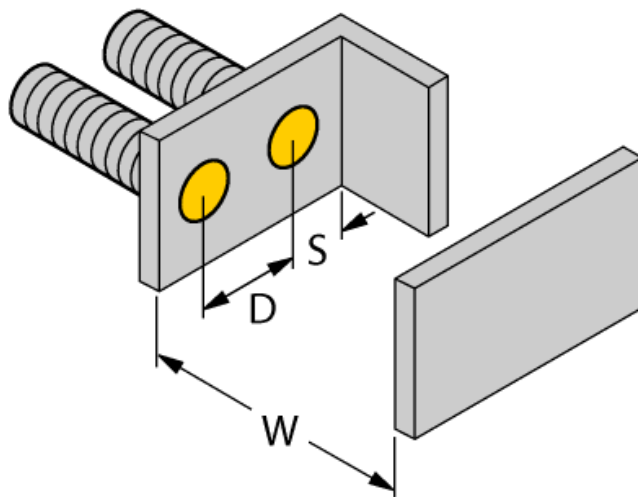
| Mounting instructions/Description | minimum distances |
|-----------------------------------|-------------------|
| Distance D                        | 36 mm             |
| Distance W                        | 15 mm             |
| Distance S                        | 27 mm             |
| Distance G                        | 30 mm             |

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|                        |         |
|------------------------|---------|
| 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.



**Capacitive sensor**  
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**Accessories**

| Type code | Ident-No. | Description   |  |
|-----------|-----------|---|--|
| BS-18     | 69471     | Mounting bracket for threaded barrel devices; material: PA66-GF   |  |
| BSN 18    | 69472     | Fixing clamp; material: PA66-GF   |  |
| BST-18B   | 6947214   | Fixing clamp for threaded barrel devices, 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) |  |

**Wiring accessories**

| Type code     | Ident-No. | Description  |  |
|---------------|-----------|--|--|
| RKC4.4T-2/TXL | 6625503   | Connection cable, female M12, straight, 4-pin, cable length: 2 m, sheath material: PUR, black; cULus approval; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a> |  |

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**Wiring accessories**

| Type code           | Ident-No. | Description  |  |
|---------------------|-----------|--|--|
| WKC4.4T-2/TXL       | 6625515   | Connection cable, female M12, angled, 4-pin, cable length: 2 m, sheath material: PUR, black; cULus approval; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a> |  |
| WKC4.4T-2/TEL       | 6625025   | Connection cable, female M12, angled, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a> |  |
| RKC4.4T-P7X2-10/TXL | 6626184   | Connection cable, female M12, angled, 4-pin, cable length: 10m, sheath material: PUR, black; cULus approval; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a> |  |