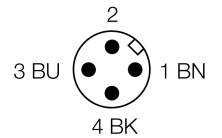
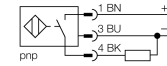


- Threaded barrel, M18 x 1
- Chrome-plated brass
- Factor 1 for all metals
- Protection class IP68
- Magnetic field immune
- High switching distance
- Recessed mounting possible
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- M12 x 1 connector

**Wiring diagram**



**Functional principle**

Inductive sensors detect metal objects contactless and wear-free. Due to the patented multi-coil system, *Uprox*®+ sensors have distinct advantages compared to conventional sensors. They excel in highest switching distances, maximum flexibility and operational reliability as well as efficient standardization.

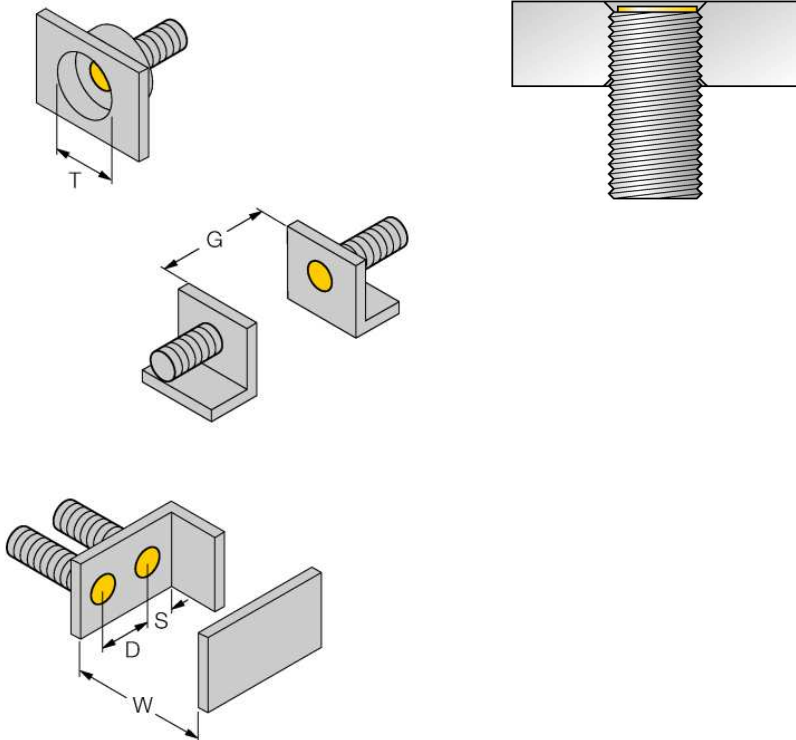
|   |   |
|---|---|
| <b>Type code</b>                            | BI8U-M18E-AP6X-H1141                      |
| <b>Ident no.</b>                            | 1644735                                   |
| <b>Rated operating distance Sn</b>          | 8 mm                                      |
| Mounting condition                          | flush                                     |
| Assured sensing range                       | ≤ (0,81 x Sn) mm                          |
| Repeatability                               | ≤ 2 % of full scale                       |
| Temperaturdrift                             | 10 %                                      |
|   | ≤ ± 15 %, ≤ -25 °C v ≥ +70 °C             |
| Hysteresis                                  | 3...15 %                                  |
| Ambient temperature                         | -30...+85 °C                              |
| <b>Operating voltage</b>                    | 10...30VDC                                |
| Residual ripple                             | ≤ 10 % U <sub>ss</sub>                    |
| DC rated operational current                | ≤ 200 mA                                  |
| No-load current I <sub>0</sub>              | ≤ 15 mA                                   |
| Residual current                            | ≤ 0.1 mA                                  |
| Rated insulation voltage                    | ≤ 0.5 kV                                  |
| Short-circuit protection                    | yes/ cyclic                               |
| Voltage drop at I <sub>0</sub>              | ≤ 1.8 V                                   |
| Wire breakage / Reverse polarity protection | yes/ complete                             |
| Output function                             | 3-wire, NO contact, PNP                   |
| Protection class                            | ☐   |
| Switching frequency                         | 1.5 kHz                                   |
| <b>Design</b>                               | threaded barrel, M18 x 1                  |
| Dimensions                                  | 72 mm                                     |
| Housing material                            | Metal, CuZn, chrome-plated                |
| Material active face                        | Plastic, LCP                              |
| Max. tightening torque housing nut          | 25 Nm                                     |
| Connection                                  | male, M12 x 1                             |
| Vibration resistance                        | 55 Hz (1 mm)                              |
| Shock resistance                            | 30 g (11 ms)                              |
| Protection class                            | IP68                                      |
| MTTF  | 874 years acc. to SN 29500 (Ed. 99) 40 °C |
| <b>Switching state</b>                      | • yellow                                  |

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|            |       |
|------------|-------|
| Distance D | 36 mm |
| Distance W | 24 mm |
| Distance T | 54 mm |
| Distance S | 27 mm |
| Distance G | 48 mm |

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Diameter of the active area B                     $\varnothing$  18 mm

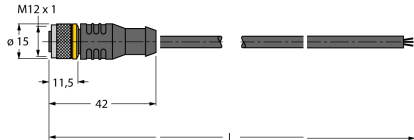


Flush and recessed mounting of all *uprox<sup>®</sup>+* threaded barrel sensors. Safe operation is ensured if the sensor is screwed in by half a turn.

### Accessories

| Type code | Ident no. | Description  | Dimension drawing |
|-----------|-----------|--|-------------------|
| PN-M18    | 6905310   | Protective nut for M18 x 1 threaded barrels; material: Stainless steel A2 1.4305 (AISI 303)  |                   |
| QM-18     | 6945102   | Quick-mount bracket with dead-stop; material: Chrome-plated brass Male thread M24 x 1.5. Note: The switching distance of proximity switches can be reduced by the use of quick-mount brackets. |                   |
| BST-18B   | 6947214   | Fixing clamp for threaded barrel devices, with dead-stop; material: PA6  |                   |
| MW-18     | 6945004   | Mounting bracket for threaded barrel devices; material: Stainless steel A2 1.4301 (AISI 304)   |                   |
| BSS-18    | 6901320   | Mounting bracket for smooth and threaded barrel devices; material: Polypropylene   |                   |

**Wiring accessories**

| Type code   | Ident no. | Description  | Dimension drawing   |
|-------------|-----------|--|---|
| RKC4T-2/TEL | 6625010   | Connection cable, female M12, straight, 3-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> |  |