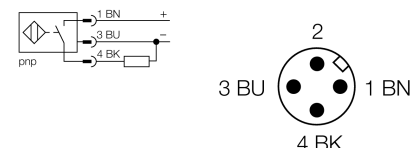


- Threaded barrel, M18 x 1
- Chrome-plated brass
- Factor 1 for all metals
- Protection class IP68
- Magnetic field immune
- High switching distance
- Recessed mounting possible
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- M12 x 1 connector

#### Wiring diagram



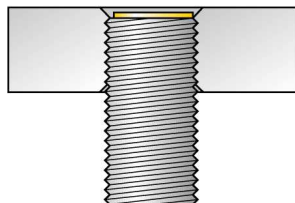
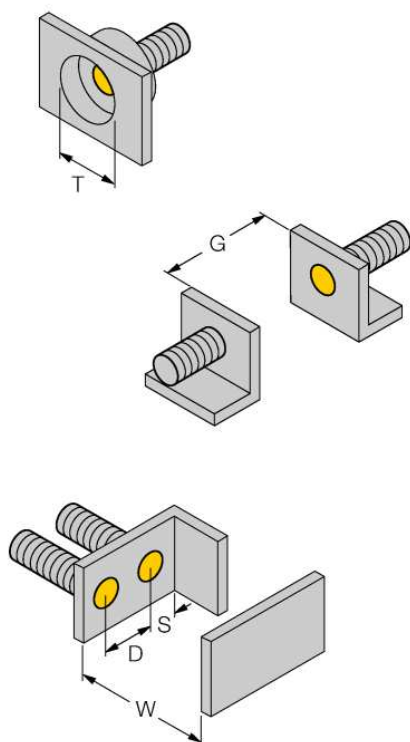
#### Functional principle

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                       | $\leq (0,81 \times S_n)$ mm                                         |
| Repeatability                               | $\leq 2\%$ of full scale                                            |
| Temperaturdrift                             | 10 %                                                                |
|                                             | $\leq \pm 15\%, \leq -25^\circ\text{C} \vee \geq +70^\circ\text{C}$ |
| Hysteresis                                  | 3...15 %                                                            |
| Ambient temperature                         | -30...+85 °C                                                        |
| <b>Operating voltage</b>                    | 10...30VDC                                                          |
| Residual ripple                             | $\leq 10\% U_{ss}$                                                  |
| DC rated operational current                | $\leq 200$ mA                                                       |
| No-load current $I_0$                       | $\leq 15$ mA                                                        |
| Residual current                            | $\leq 0.1$ mA                                                       |
| Rated insulation voltage                    | $\leq 0.5$ kV                                                       |
| Short-circuit protection                    | yes/ cyclic                                                         |
| Voltage drop at $I_0$                       | $\leq 1.8$ V                                                        |
| Wire breakage / Reverse polarity protection | yes/ complete                                                       |
| Output function                             | 3-wire, NO contact, PNP                                             |
| Protection class                            | IP68                                                                |
| 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                                                            |

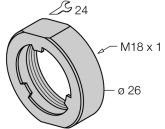
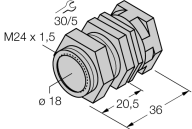
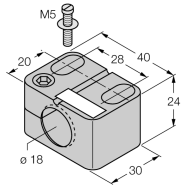
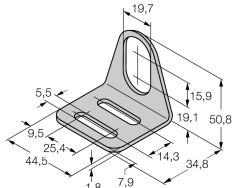
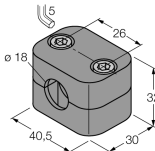
|            |       |
|------------|-------|
| Distance D | 36 mm |
| Distance W | 24 mm |
| Distance T | 54 mm |
| Distance S | 27 mm |
| Distance G | 48 mm |

|                               |         |
|-------------------------------|---------|
| Diameter of the active area B | Ø 18 mm |
|-------------------------------|---------|

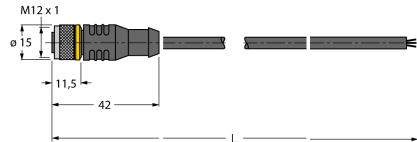


Flush and recessed mounting of all *uprox<sup>®</sup>+* threaded barrel sensors. Safe operation is ensured if the sensor is screwed in by half a turn.

## 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> |  |