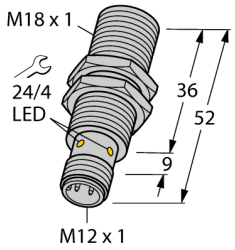
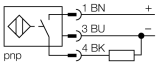
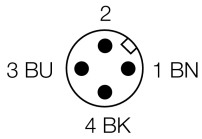
# Inductive sensor
# BI8U-M18-AP6X-H1141




- **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

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|---|---|
| **Type** | BI8U-M18-AP6X-H1141 |
| Ident-No. | 1644731 |
| **Rated operating distance Sn** | 8 mm |
| Mounting condition | flush |
| Assured sensing range | ≤ (0,81 x Sn) mm |
| Repeatability | ≤ 2 % |
| Temperaturdrift | 10 % |
| | ≤ ± 15 %, ≤ -25 °C v ≥ +70 °C |
| Hysteresis | 3…15 % |
| Ambient temperature | -30…+85 °C |
| **Operating voltage** | 10…30VDC |
| Residual ripple | ≤ 10 % $U_{ss}$ |
| DC rated operational current | ≤ 200 mA |
| No-load current $I_0$ | ≤ 15 mA |
| Residual current | ≤ 0.1 mA |
| Rated insulation voltage | ≤ 0.5 kV |
| Short-circuit protection | yes/ cyclic |
| Voltage drop at $I_e$ | ≤ 1.8 V |
| Wire breakage / Reverse polarity protection | yes/ complete |
| Output function | 3-wire, NO contact, PNP |
| Protection class | ⧈ |
| Switching frequency | 1.5 kHz |
| **Design** | threaded barrel, M18 x 1 |
| Dimensions | 52 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 |
| **Switching state** | ● yellow |

### 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.

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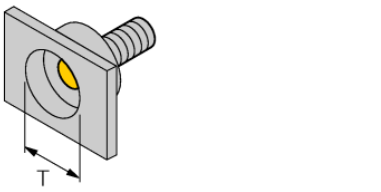
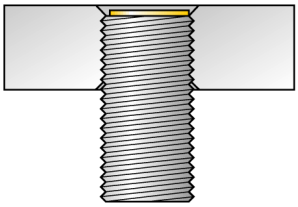
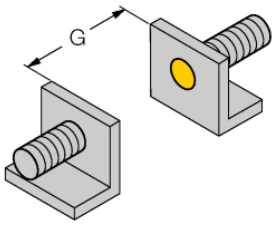
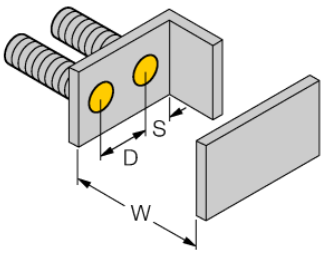
| | |
|---|---|
| **Mounting instructions** | minimum distances |
| Distance D | 36 mm |
| Distance W | 24 mm |
| Distance T | 54 mm |
| Distance S | 27 mm |
| Distance G | 48 mm |

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






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

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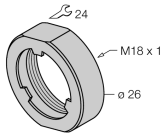
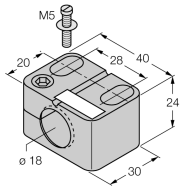
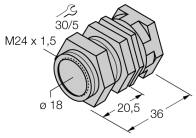
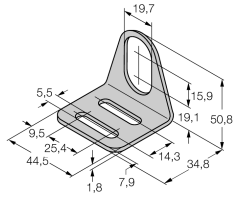
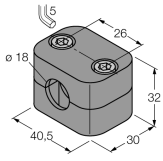
## Accessories

| 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) |  |
| BST-18B | 6947214 | Fixing clamp for threaded barrel devices, with dead-stop; material: PA6 |  |
| 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. |  |
| 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 |  |

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