

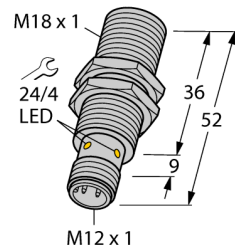
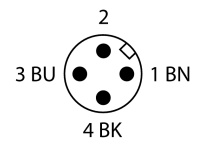
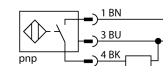
Inductive sensor

With increased switching distance

BI8-M18-AP6X-H1141

- Threaded barrel, M18 x 1
- Chrome-plated brass
- Large sensing range
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- M12 x 1 male connector

Wiring Diagram



| | |
|--|---|
| Type designation | BI8-M18-AP6X-H1141 |
| Ident no. | 46150 |
| Rated switching distance S_n | 8 mm |
| Mounting conditions | Flush |
| Secured operating distance | $\leq (0,81 \times S_n)$ mm |
| Correction factors | St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4 |
| Repeat accuracy | $\leq 2\%$ of full scale |
| Temperature drift | $\leq \pm 10\%$ |
| Hysteresis | 3...15 % |
| Ambient temperature | -25...+70 °C |
| Operating voltage | 10...30 VDC |
| Residual ripple | $\leq 10\% U_{ss}$ |
| DC rated operational current | ≤ 200 mA |
| No-load current I_0 | ≤ 15 mA |
| Residual current | ≤ 0.1 mA |
| Isolation test voltage | ≤ 0.5 kV |
| Short-circuit protection | yes/ Cyclic |
| Voltage drop at I_0 | ≤ 1.8 V |
| Wire breakage/Reverse polarity protection | yes/ Complete |
| Output function | 3-wire, NO contact, PNP |
| Reverse polarity protection | Complete |
| Protection class | □ |
| Switching frequency | 0.5 kHz |
| Design | Threaded barrel, M18 x 1 |
| Dimensions | 52 mm |
| Housing material | Metal, CuZn, Chrome-plated |
| Active area material | Plastic, PA12-GF30 |
| Max. tightening torque housing nut | 25 Nm |
| Electrical connection | Connector, M12 x 1 |
| Vibration resistance | 55 Hz (1 mm) |
| Shock resistance | 30 g (11 ms) |
| Protection class | IP67 |
| MTTF | 2283 years acc. to SN 29500 (Ed. 99) 40 °C |
| Switching state | LED yellow |

Functional principle

Inductive sensors detect metal objects contactless and wear-free. For this, they use a high-frequency electromagnetic AC field that interacts with the target. Inductive sensors generate this field via an RLC circuit with a ferrite coil.

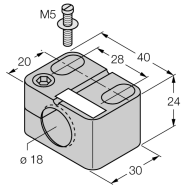
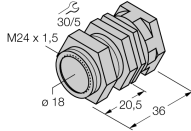
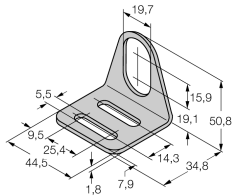
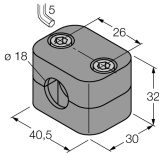
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| | |
|------------------------|---------|
| Distance D | 2 x B |
| Distance W | 3 x Sn |
| Distance T | 3 x B |
| Distance S | 1.5 x B |
| Distance G | 6 x Sn |
| <hr/> | |
| Diameter active area B | Ø 18 mm |

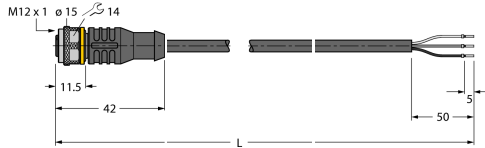


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Accessories

| Type code | Ident no. | Description | |
|-----------|-----------|--|---|
| 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 |  |

Wiring accessories

| Type code | Ident no. | Description | |
|-------------|-----------|---|---|
| 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 www.turck.com |  |