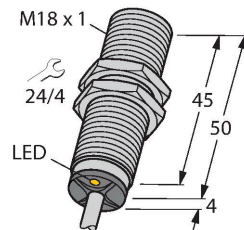


BI7-M18-AD4X

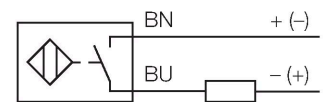
Inductive Sensor



Features

- Threaded barrel, M18 x 1
- Chrome-plated brass
- DC 2-wire, 10...65 VDC
- NO contact
- Cable connection

Wiring diagram



Technical data

| | |
|--|---|
| Type | BI7-M18-AD4X |
| ID | 4414535 |
| General data | |
| Rated switching distance | 7 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 | ≤ 2 % of full scale |
| Temperature drift | $\leq \pm 10$ % |
| Hysteresis | 1...15 % |
| Electrical data | |
| Operating voltage U_B | 10...65 VDC |
| Ripple U_{ss} | ≤ 10 % U_{Bmax} |
| DC rated operating current I_o | ≤ 100 mA |
| Residual current | ≤ 0.6 mA |
| Isolation test voltage | 0.5 kV |
| Short-circuit protection | yes/Cyclic |
| Voltage drop at I_o | ≤ 5 V |
| Wire break/reverse polarity protection | Complete |
| Output function | 2-wire, NO contact, 2-wire |
| Smallest operating current | ≥ 3 mA |
| Switching frequency | 1 kHz |
| Mechanical data | |
| Design | Threaded barrel, M18 x 1 |
| Dimensions | 54 mm |
| Housing material | Metal, CuZn, Chrome-plated |

Functional principle

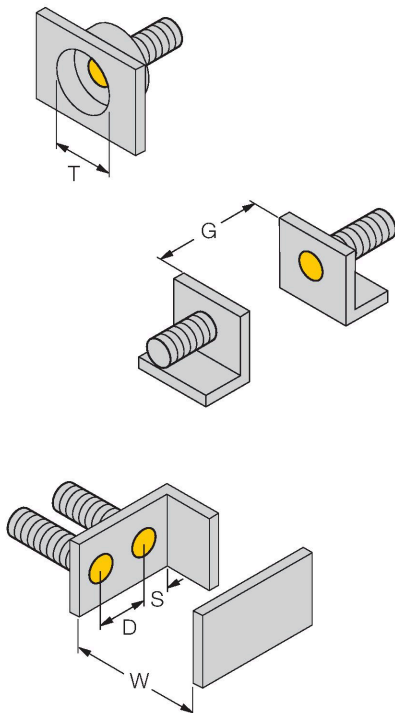
Inductive sensors detect metal objects contactless and wear-free. For this, they use a high-frequency electromagnetic AC field that interacts with the target. Inductive sensors generate this field via an RLC circuit with a ferrite coil.

Technical data

| | |
|---------------------------------------|--|
| Active area material | Plastic, PA12-GF30 |
| End cap | Plastic, EPTR |
| Max. tightening torque of housing nut | 25 Nm |
| Electrical connection | Cable |
| Cable quality | Ø 5.2 mm, LifYY, PVC, 2 m |
| Core cross-section | 2 x 0.34 mm ² |
| Environmental conditions | |
| Ambient temperature | -25...+70 °C |
| 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 |

Mounting instructions

Mounting instructions/Description



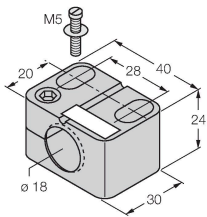
| | |
|------------------------|---------|
| Distance D | 2 x B |
| Distance W | 3 x Sn |
| Distance T | 3 x B |
| Distance S | 1.5 x B |
| Distance G | 6 x Sn |
| Diameter active area B | Ø 18 mm |

Accessories

BST-18B

6947214

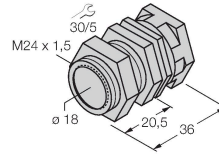
Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6



QM-18

6945102

Quick-mount bracket with dead-stop; material: Chrome-plated brass. Male thread M24 × 1.5. Note: The switching distance of the proximity switches may change when using quick-mount brackets.



MW18

6945004

Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)



BSS-18

6901320

Mounting clamp for smooth and threaded barrel sensors; material: Polypropylene

