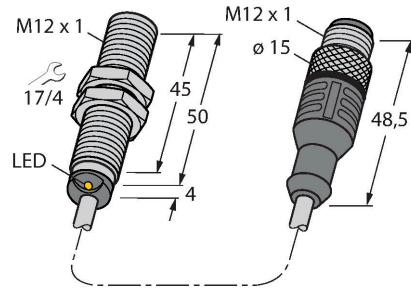


BI3-MT12-AD4X-0.3-RS4.2T

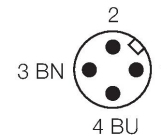
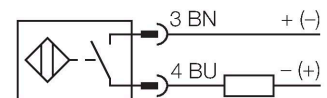
Inductive Sensor



Features

- Threaded barrel, M12 x 1
- Brass, PTFE-coated
- DC 2-wire, 10...65 VDC
- NO contact
- Cable with male end

Wiring diagram



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

| | |
|--|---|
| Type | BI3-MT12-AD4X-0.3-RS4.2T |
| ID | 4405081 |
| General data | |
| Rated switching distance | 3 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 |
| Hysteresis | 1...15 % |
| Electrical data | |
| Operating voltage U_B | 10...65 VDC |
| Ripple U_{ss} | $\leq 10 \%$ 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, M12 x 1 |

Technical data

| | |
|---------------------------------------|--|
| Dimensions | 54 mm |
| Housing material | Metal, CuZn, PTFE-coated |
| Active area material | Plastic, PA12-GF30, PTFE-coated |
| End cap | Plastic, EPTR |
| Material coupling nut | metal, CuZn, nickel-plated |
| Max. tightening torque of housing nut | 7 Nm |
| Electrical connection | Cable with connector, M12 × 1 |
| Cable quality | Ø 5.2 mm, LifYY, PVC, 0.3 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 |

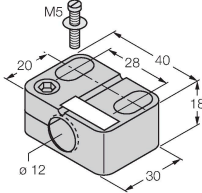
Mounting instructions

| Mounting instructions/Description | |
|--|------------------------|
|  | Distance D |
| | 24 mm |
| | Distance W |
| | 9 mm |
| | Distance T |
| | 36 mm |
| | Distance S |
| | 18 mm |
| | Distance G |
| | 18 mm |
| | Diameter active area B |
| | Ø 12 mm |

Accessories

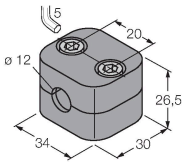
BST-12B 6947212

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



BSS-12 6901321

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



QMT-12 6945106

Quick-mount bracket with dead-stop; material: brass, PTFE-coated; Male thread M16 × 1. Note: The switching distance of the proximity switches may change when using quick-mount brackets.

