

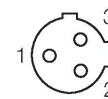
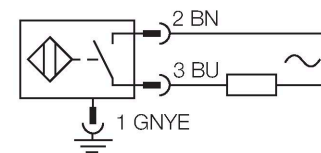
BI2U-GT12-ADZ32X-B3131

Inductive Sensor

Features

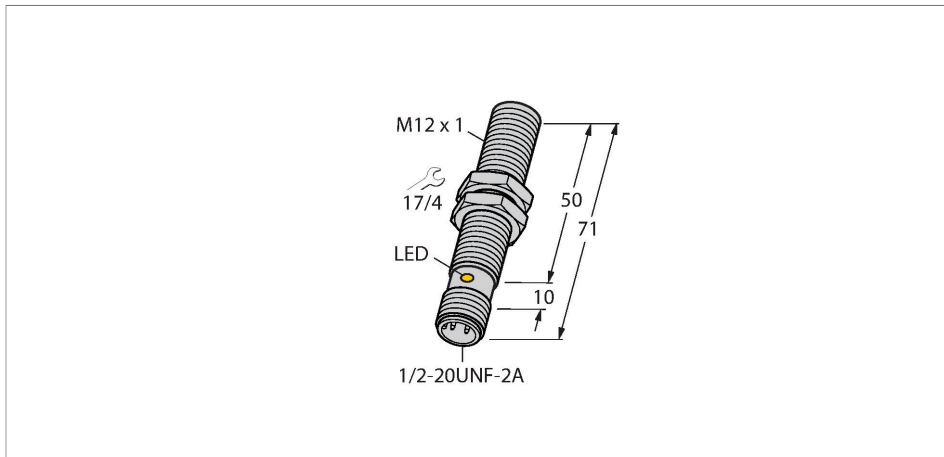
- Threaded barrel, M12 × 1
- Brass, PTFE-coated
- Factor 1 for all metals
- Protection class IP68
- Resistant to magnetic fields
- Extended temperature range
- High switching frequency
- AC 2-wire, 20...250 VAC
- DC 2-wire, 10...300 VDC
- NO contact
- 1/2" male connector

Wiring diagram



Functional principle

Inductive sensors are designed for wear-free and contactless detection of metal objects. approx Factor 1 sensors have significant advantages due to their patented ferrite-coreless multi-coil system. They detect all metals at the same large switching distance and are resistant to magnetic fields.



Technical data

| | |
|-------------------------------------------|------------------------------------------------------------------------------------------|
| Type | BI2U-GT12-ADZ32X-B3131 |
| ID | 4281015 |
| General data | |
| Rated switching distance | 2 mm |
| Mounting conditions | Flush |
| Secured operating distance | $\leq (0.81 \times S_n)$ mm |
| Repeat accuracy | $\leq 2 \%$ of full scale |
| | $\leq \pm 15 \%$, $\leq -25 \text{ }^\circ\text{C}$ v $\geq +70 \text{ }^\circ\text{C}$ |
| Hysteresis | 3...15 % |
| Electrical data | |
| Operating voltage | 20...250 VAC |
| Operating voltage | 10...300 VDC |
| AC rated operational current | ≤ 100 mA |
| DC rated operational current | ≤ 100 mA |
| Frequency | $\geq 50 \dots \leq 60$ Hz |
| Residual current | ≤ 1.7 mA |
| Isolation test voltage | ≤ 1.5 kV |
| Surge current | ≤ 1 A (≤ 10 ms max. 5 Hz) |
| Short-circuit protection | yes / Latching |
| Voltage drop at I_o | ≤ 6 V |
| Wire breakage/Reverse polarity protection | yes / Complete |
| Output function | 2-wire, NO contact, 2-wire |
| DC field stability | 300 mT |
| AC field stability | 300 mT _{ss} |

Technical data

| | |
|---------------------------------------|-------------------------------------------|
| Smallest operating current | ≥ 3 mA |
| Insulation class | □ |
| Switching frequency | 0.01 kHz |
| Mechanical data | |
| Design | Threaded barrel, M12 x 1 |
| Dimensions | 71 mm |
| Housing material | Metal, CuZn, PTFE-coated |
| Active area material | Plastic, PA12-GF30, PTFE-coated |
| Max. tightening torque of housing nut | 10 Nm |
| Electrical connection | Connector, 1/2" |
| Environmental conditions | |
| Ambient temperature | -30...+85 °C |
| 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 | 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 12 mm |

Accessories

QM-12

6945101

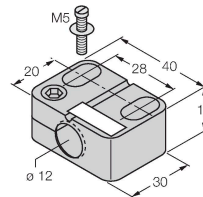
Quick-mount bracket with dead-stop; material: Chrome-plated brass. Male thread M16 x 1. Note: The switching distance of the proximity switches may change when using quick-mount brackets.



BST-12B

6947212

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



MW-12

6945003

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



BSS-12

6901321

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

