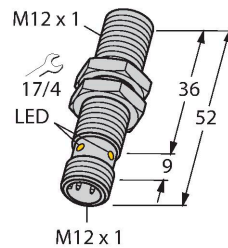


BI4U-M12-AN6X-H1141

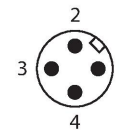
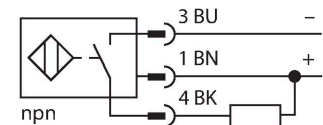
Inductive Sensor



Features

- M12 × 1 threaded barrel
- Chrome-plated brass
- Factor 1 for all metals
- Protection class IP68
- Resistant to magnetic fields
- Large switching distance
- Recessed mountable
- DC 3-wire, 10...30 VDC
- NO contact, NPN output
- M12 x 1 male connector

Wiring diagram



Technical data

| | |
|---|--|
| Type | BI4U-M12-AN6X-H1141 |
| Ident. no. | 1634824 |
| Rated switching distance | 4 mm |
| Mounting conditions | Flush |
| Secured operating distance | $\leq (0.81 \times S_n) \text{ mm}$ |
| Repeat accuracy | $\leq 2 \text{ \% of full scale}$ |
| Temperature drift | $\leq \pm 10 \text{ \%}$ |
| | $\leq \pm 15 \text{ \%}, \leq -25 \text{ }^\circ\text{C} \vee \geq +70 \text{ }^\circ\text{C}$ |
| Hysteresis | 3...15 % |
| Ambient temperature | -30...+85 °C |
| Operating voltage | 10...30 VDC |
| Residual ripple | $\leq 10 \text{ \% } U_{ss}$ |
| DC rated operational current | $\leq 200 \text{ mA}$ |
| No-load current | $\leq 20 \text{ mA}$ |
| Residual current | $\leq 0.1 \text{ mA}$ |
| Isolation test voltage | $\leq 0.5 \text{ kV}$ |
| Short-circuit protection | yes / Cyclic |
| Voltage drop at I_o | $\leq 1.8 \text{ V}$ |
| Wire breakage/Reverse polarity protection | yes / Complete |
| Output function | 3-wire, NO contact, NPN |
| Insulation class | □ |
| Switching frequency | 2 kHz |
| Design | Threaded barrel, M12 × 1 |
| Dimensions | 52 mm |

Functional principle

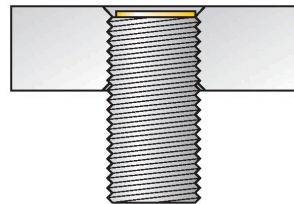
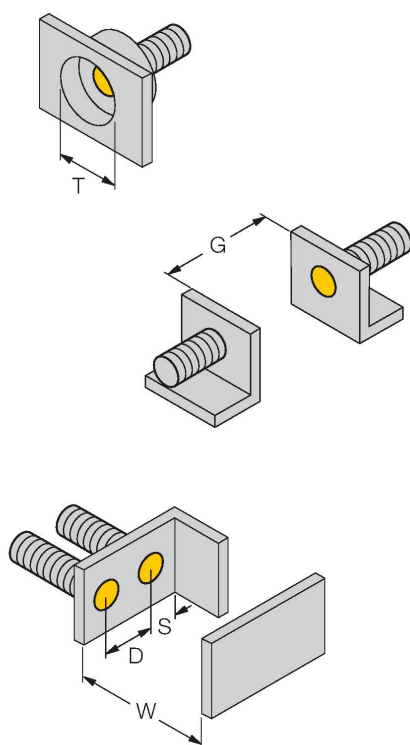
Inductive sensors are designed for wear-free and contactless detection of metal objects. uprox+ sensors have significant advantages due to their patented multi-coil system. They excel thanks to their optimum switching distances, maximum flexibility and operational reliability as well as efficient standardization.

Technical data

| | |
|---------------------------------------|---|
| Housing material | Metal, CuZn, Chrome-plated |
| Active area material | Plastic, LCP |
| Max. tightening torque of housing nut | 10 Nm |
| Electrical connection | Connector, M12 × 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 | LED, Yellow |

Mounting instructions

Mounting instructions/Description



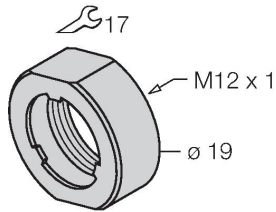
| | |
|------------------------|---------|
| Distance D | 24 mm |
| Distance W | 3 x Sn |
| Distance T | 3 x B |
| Distance S | 1.5 x B |
| Distance G | 6 x Sn |
| Diameter active area B | Ø 12 mm |

All flush mountable uprox+ threaded barrel types are also recessed mountable. Safe operation is ensured if the sensor is screwed in by half a turn.

Accessories

PN-M12

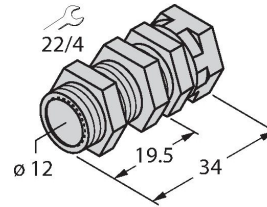
6905309



Impact protection nut for M12x1 threaded barrel devices; material: Stainless steel A2 1.4305 (AISI 303)

QM-12

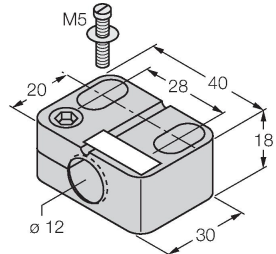
6945101



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

BST-12B

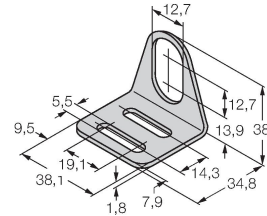
6947212



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

MW-12

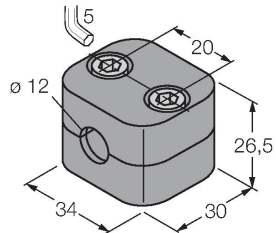
6945003



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

Wiring accessories

Dimension drawing

Type

Ident. no.

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

