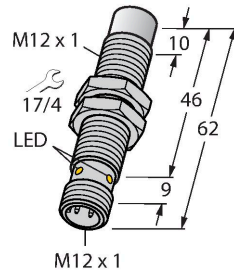


NI8U-MT12E-AP6X2-H1141/S1589

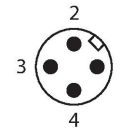
Inductive Sensor – With WeldGuard™ coating



Features

- Threaded barrel, M12 x 1
- Brass, PTFE-coated
- Factor 1 for all metals
- Protection class IP68
- Resistant to magnetic fields
- Extended temperature range
- High switching frequency
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- M12 x 1 male connector

Wiring diagram



Technical data

| | |
|---|---|
| Type | NI8U-MT12E-AP6X2-H1141/S1589 |
| ID | 1644299 |
| Special version | S1589 corresponds to: With weldguard coating |
| General data | |
| Rated switching distance | 8 mm |
| Mounting conditions | Non-flush |
| Secured operating distance | $\leq (0.81 \times S_n)$ mm |
| Repeat accuracy | ≤ 2 % of full scale |
| Temperature drift | $\leq \pm 10$ % |
| | $\leq \pm 15$ %, ≤ -25 °C v $\geq +70$ °C |
| Hysteresis | 3...15 % |
| Electrical data | |
| Operating voltage | 10...30 VDC |
| Residual ripple | ≤ 10 % U_{ss} |
| DC rated operational current | ≤ 200 mA |
| No-load current | 25 mA |
| Residual current | ≤ 0.1 mA |
| Isolation test voltage | ≤ 0.5 kV |
| Short-circuit protection | yes / Cyclic |
| Voltage drop at I_o | ≤ 1.8 V |
| Wire breakage/Reverse polarity protection | yes / Complete |
| Output function | 3-wire, NO contact, PNP |
| DC field stability | 300 mT |

Functional principle

Inductive sensors are designed for wear-free and contactless detection of metal objects. uprox Factor 1 sensors have significant advantages due to their patented ferrite-coreless 3-coil system. They detect all metals at the same large switching distance and are resistant to magnetic fields. Turck WeldGuard sensors for use in welding systems are equipped with a thin coating made of thermosetting plastic. This high-tech coating is resistant to abrasion and withstands mechanical stress.

Technical data

| | |
|---------------------------------------|---|
| AC field stability | 300 mT _{ss} |
| Insulation class | □ |
| Switching frequency | 1 kHz |
| Mechanical data | |
| Design | Threaded barrel, M12 × 1 |
| Dimensions | 62 mm |
| Housing material | Metal, CuZn, PTFE-coated |
| Active area material | Plastic, LCP + WeldGuard™, PTFE-coated |
| Max. tightening torque of housing nut | 7 Nm |
| Electrical connection | Connector, M12 × 1 |
| 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 |
| Power-on indication | LED, Green |
| Switching state | LED, Yellow |

Mounting instructions

Mounting instructions/Description

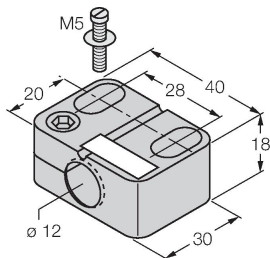


| | |
|------------------------|---------|
| Distance D | 48 mm |
| Distance W | 3 x Sn |
| Distance T | 45 mm |
| Distance S | 1.5 x B |
| Distance G | 6 x Sn |
| Distance N | 2 x Sn |
| Diameter active area B | Ø 12 mm |

Accessories

BST-12B

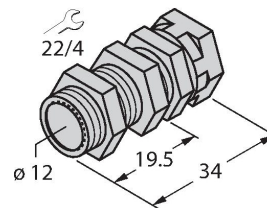
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Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6

QMT-12

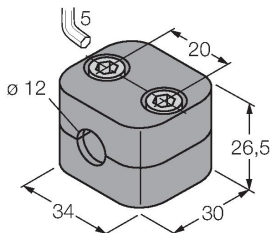
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Quick-mount bracket with dead-stop; material: brass, PTFE-coated; Male thread M16 x 1. Note: The switching distance of the proximity switches may change when using quick-mount brackets.

BSS-12

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