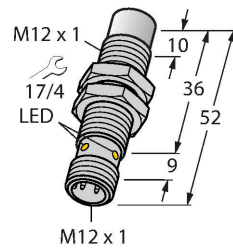


NI8U-EM12H-AP6X-H1141

Inductive sensor



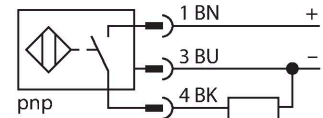
Features

- Threaded barrel, M12 x 1
- Stainless steel, 1.4301
- Duroplast front cap, very resistant to thermal and mechanical load
- Factor 1 for all metals
- Protection class IP68
- Resistant to magnetic fields
- Extended temperature range
- High switching frequency
- Auto-compensation protects against pre-attenuation
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- M12 x 1 male connector

Technical data

| | |
|---|--|
| Type | NI8U-EM12H-AP6X-H1141 |
| Ident. no. | 1644312 |
| Rated switching distance | 8 mm |
| Mounting conditions | Non-flush, partially embeddable |
| Secured operating distance | $\leq (0,81 \times S_n)$ mm |
| Repeat accuracy | $\leq 2\%$ of full scale |
| Temperature drift | $\leq \pm 10\%$ $\leq \pm 20\%$, $\leq -25\text{ °C}$ v $\geq +70\text{ °C}$ |
| Hysteresis | 3...15 % |
| Ambient temperature | -30...+85 °C |
| Operating voltage | 10...30 VDC |
| Residual ripple | $\leq 10\%$ U_{ss} |
| DC rated operational current | ≤ 200 mA |
| No-load current | ≤ 20 mA |
| Residual current | ≤ 0.1 mA |
| Isolation test voltage | ≤ 0.5 kV |
| Short-circuit protection | yes / Cyclic |
| Voltage drop at | ≤ 1.8 V |
| Wire breakage/Reverse polarity protection | yes / Complete |
| Output function | 3-wire, NO contact, PNP |
| Insulation class | □ |
| Switching frequency | 2 kHz |
| Design | Threaded barrel, M12 x 1 |
| Dimensions | 52 mm |

Wiring diagram



Functional principle

Inductive sensors detect metal objects contactless and wear-free. *uprox*® Factor 1 sensors have significant advantages due to their patented ferrite-coreless multicoil system. They detect all metals at the same large switching distance and are resistant to magnetic fields.

Technical data

| | |
|------------------------------------|---|
| Housing material | Stainless steel, V2A (1.4301) |
| Active area material | Plastic, Duroplast |
| Max. tightening torque 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 | 3 x B |
| | Distance T | 45 mm |
| | Distance S | 0.5 x B |
| | Distance N | 2 x Sn |
| | Diameter active area | Ø 12 mm |
| B | | |

1-side flush mounting possible:
1-side flush mounting: Sr = 6 mm

Accessories

BST-12B **6947212**

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

QM-12 **6945101**

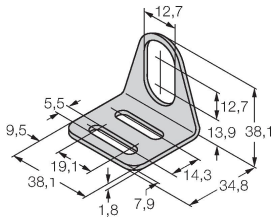
Quick-mount bracket with dead-stop; material: Chrome-plated brass. Male thread M16 × 1. Note: The switching distance of the proximity switches may change when using quick-mount brackets.

N18U-EM12H-AP6X-H114| 11/19/2019 16-13 | technical changes reserved

MW12

6945003

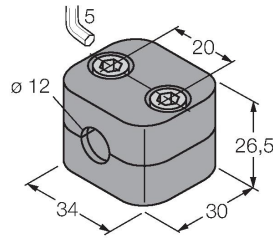
Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)



BSS-12

6901321

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





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