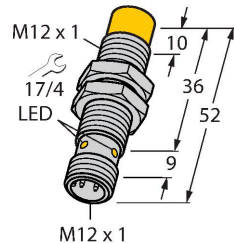


# NI8U-M12-AN6X-H1141

## Inductive Sensor



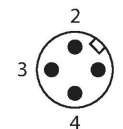
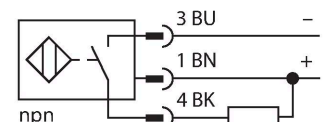
### Technical data

|   |  |
|---|--|
| Type                                      | NI8U-M12-AN6X-H1141  |
| ID no.                                    | 1644150  |
| Rated switching distance                  | 8 mm   |
| Mounting conditions                       | Non-flush  |
| Secured operating distance                | $\leq (0.81 \times S_n)$ mm  |
| Repeat accuracy                           | $\leq 2\%$ of full scale   |
| Temperature drift                         | $\leq \pm 10\%$<br>$\leq \pm 15\%$ , $\leq -25\text{ °C}$ 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              | $\leq 200\text{ mA}$   |
| No-load current                           | 25 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  |
| DC field stability                        | 300 mT   |
| AC field stability                        | 300 mT <sub>ss</sub>   |
| Insulation class                          | □  |
| Switching frequency                       | 2 kHz  |
| Design                                    | Threaded barrel, M12 × 1   |
| Dimensions                                | 52 mm  |
| Housing material                          | Metal, CuZn, Chrome-plated   |

### Features

- M12 × 1 threaded barrel
- Chrome-plated brass
- 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, NPN output
- M12 × 1 male connector

### Wiring diagram



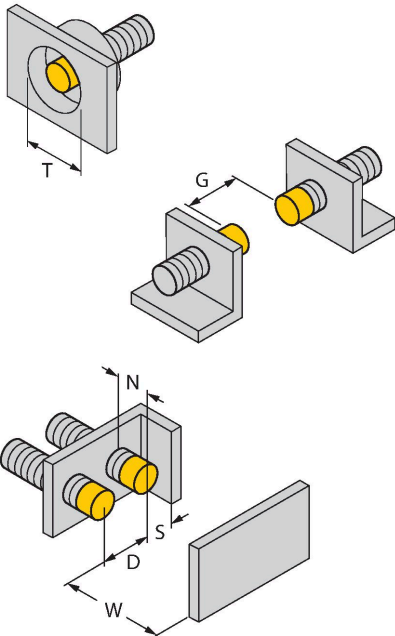
### Functional principle

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 multi-coil system. They detect all metals at the same large switching distance and are resistant to magnetic fields.

Technical data

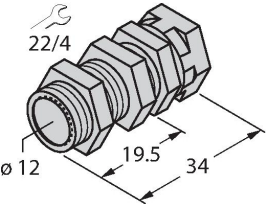
|                                       |   |
|---------------------------------------|---|
| Active area material                  | Plastic, LCP                              |
| Max. tightening torque of housing nut | 10 Nm                                     |
| Electrical connection                 | 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 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 |
|  |                                |

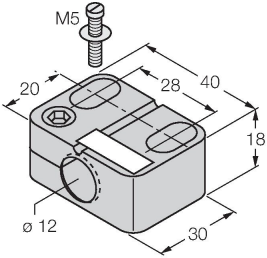
Accessories

QM-126945101



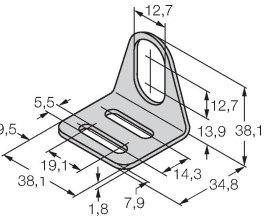
Quick-mount bracket with dead-stop; material: Chrome-plated brass. Male thread M16 × 1. Note: The switching distance of the proximity switches may change when using quick-mount brackets.

BST-12B6947212



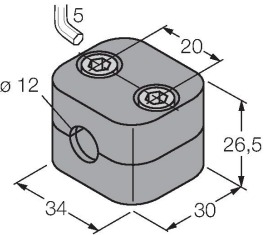
Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6

MW-126945003



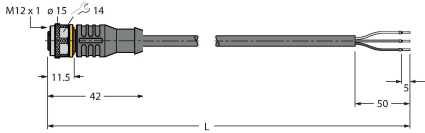
Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)

BSS-126901321



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

Accessories

| Dimension drawing   | Type        | ID 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 <a href="http://www.turck.com">www.turck.com</a> |