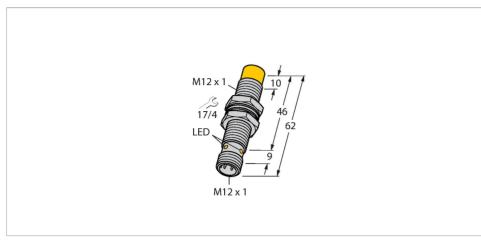


# NI8U-M12E-VN4X-H1141 Inductive Sensor



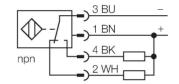
#### Technical data

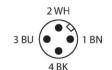
| Type                                      | NI8U-M12E-VN4X-H1141               |  |  |
|---|------------------------------------|--|--|
| Ident. no.                                | 1580552                            |  |  |
| Rated switching distance                  | 8 mm                               |  |  |
| Mounting conditions                       | Non-flush                          |  |  |
| Secured operating distance                | ≤ (0.81 × Sn) mm                   |  |  |
| Repeat accuracy                           | ≤ 2 % of full scale                |  |  |
| Temperature drift                         | ≤ ± 10 %                           |  |  |
|   | ≤ ± 15 %, ≤ -25 °C v ≥ +70 °C      |  |  |
| Hysteresis                                | 315 %                              |  |  |
| Ambient temperature                       | -30+85 °C                          |  |  |
| Operating voltage                         | 1065 VDC                           |  |  |
| Residual ripple                           | ≤ 10 % U <sub>ss</sub>             |  |  |
| DC rated operational current              | ≤ 200 mA                           |  |  |
| No-load current                           | ≤ 15 mA                            |  |  |
| Residual current                          | ≤ 0.1 mA                           |  |  |
| Isolation test voltage                    | ≤ 0.5 kV                           |  |  |
| Short-circuit protection                  | yes / Cyclic                       |  |  |
| Voltage drop at I <sub>e</sub>            | ≤ 1.8 V                            |  |  |
| Wire breakage/Reverse polarity protection | yes / Complete                     |  |  |
| Output function                           | 4-wire, Complementary contact, NPN |  |  |
| Insulation class                          |                                    |  |  |
| Switching frequency                       | 2 kHz                              |  |  |
| Design                                    | Threaded barrel, M12 × 1           |  |  |
| Dimensions                                | 62 mm                              |  |  |
|   |                                    |  |  |

#### **Features**

- M12 × 1 threaded barrel
- Long version
- Chrome-plated brass
- Factor 1 for all metals
- Protection class IP68
- Resistant to magnetic fields
- Extended temperature range
- High switching frequency
- DC 4-wire, 10...65 VDC
- Changeover contact, NPN output
- M12 x 1 male connector

## 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.

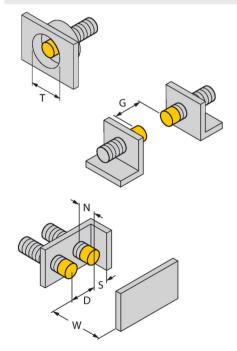


### Technical data

| Housing material                   | Metal, CuZn, Chrome-plated                |  |  |
|------------------------------------|---|--|--|
| Active area material               | Plastic, PBT                              |  |  |
| 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                               |  |  |

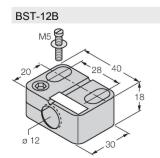
# Mounting instructions

#### Mounting instructions/Description

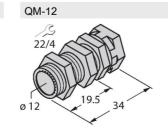


| Distance D             | 48 mm   |
|------------------------|---------|
| Distance W             | 3 x Sn  |
| Distance T             | 4 x B   |
| Distance S             | 1.5 x B |
| Distance G             | 6 x Sn  |
| Distance N             | 2 x Sn  |
| Diameter active area B | Ø 12 mm |

#### Accessories



| 6947212   |
|---|
| Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6 |

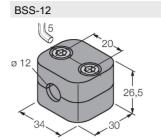


Quick-mount bracket with dead-stop; material: Chrome-plated brass. Male thread M16 × 1. Note: The switching distance of the proximity switches may change when using quick-mount brackets.

6945101

6901321

9,5 19,1 14,3 38,1 1,8 7,9 Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)



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

# Wiring accessories

| Dimension drawing | Type         | Ident. no. |   |
|-------------------|--------------|------------|---|
| M12x1             | RKH4.4-2/TFE | 6934473    | Connection cable, M12 female, straight, 4-pin, stainless steel coupling nut, cable length: 2 m, jacket material: PVC, gray, temperature range -25+80 °C; other cable lengths and designs available, see www.turck.com |
| M12x1 1/2/14      | RKH4.4-2/TFG | 6933086    | Connection cable, M12 female, straight, 4-pin, stainless steel coupling nut, cable length: 2 m, jacket material: TPE, gray temperature range -40+105 °C; other cable lengths and designs available, see www.turck.com |