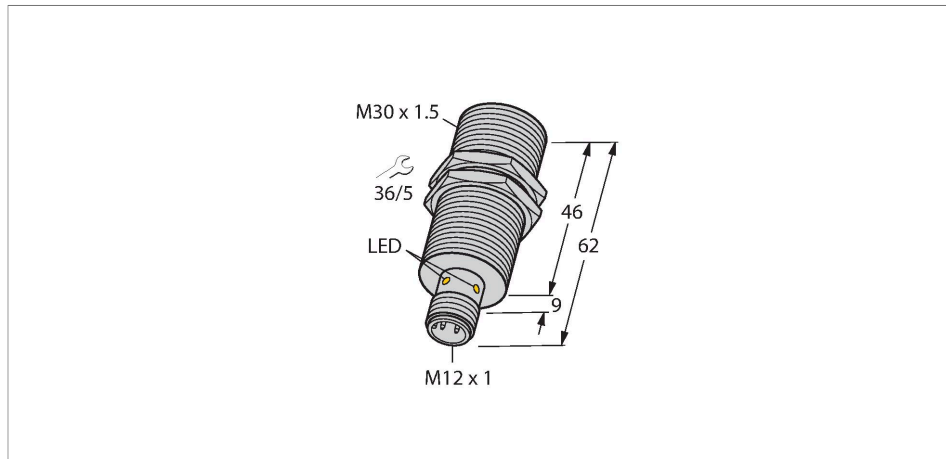


# BI10U-M30-VP4X-H1141

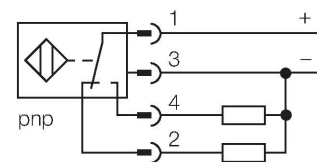
## Inductive Sensor



### Features

- M30 × 1.5 threaded tube
- 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, PNP output
- M12 x 1 male connector

### Wiring diagram



### Technical data

|   |                                    |
|---|------------------------------------|
| Type                                      | BI10U-M30-VP4X-H1141               |
| Ident. no.                                | 1582253                            |
| Rated switching distance                  | 10 mm                              |
| Mounting conditions                       | Flush                              |
| Secured operating distance                | ≤ (0.81 × S <sub>n</sub> ) mm      |
| Repeat accuracy                           | ≤ 2 % of full scale                |
| Temperature drift                         | ≤ ± 10 %                           |
|   | ≤ ± 15 %, ≤ -25 °C v ≥ +70 °C      |
| Hysteresis                                | 3...15 %                           |
| Ambient temperature                       | -30...+85 °C                       |
| Operating voltage                         | 10...65 VDC                        |
| Residual ripple                           | ≤ 10 % U <sub>s</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, PNP |
| Insulation class                          | □                                  |
| Switching frequency                       | 1 kHz                              |
| Design                                    | Threaded barrel, M30 × 1.5         |
| Dimensions                                | 62 mm                              |

### 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 | 75 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

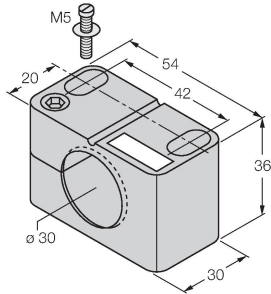


|                           |         |
|---------------------------|---------|
| Distance D                | 2 x B   |
| Distance W                | 3 x Sn  |
| Distance T                | 3 x B   |
| Distance S                | 1.5 x B |
| Distance G                | 6 x Sn  |
| Diameter active area<br>B | Ø 30 mm |

## Accessories

**BST-30B**

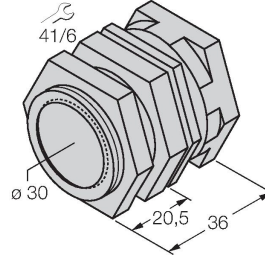
6947216



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

**QM-30**

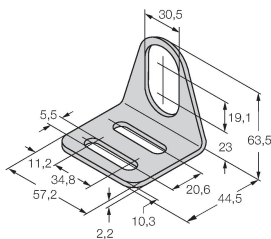
6945103



Quick-mount bracket with dead-stop; material: Chrome-plated brass. Male thread M36 × 1.5. Note: The switching distance of the proximity switches may change when using quick-mount brackets.

**MW30**

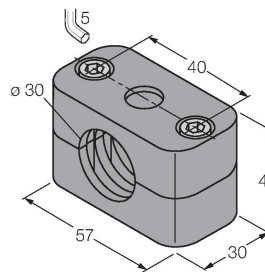
6945005



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

**BSS-30**

6901319



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

## Wiring accessories

Dimension drawing

Type

Ident. no.

RKC4.4T-2/TEL

6625013

Connection cable, female M12, straight, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see [www.turck.com](http://www.turck.com)

