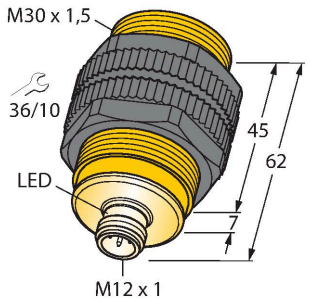
# BI10U-S30-VP6X-H1141
# Inductive Sensor



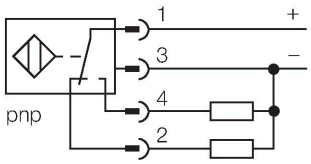

## Technical data

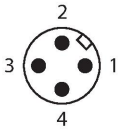
| | |
|---|---|
| Type | BI10U-S30-VP6X-H1141 |
| ID | 100000777 |
| **General data** | |
| Rated switching distance | 10 mm |
| Mounting conditions | Flush |
| Secured operating distance | ≤ (0.81 × Sn) mm |
| Repeat accuracy | ≤ 2 % of full scale |
| Temperature drift | ≤ ±10 % |
| | ≤ ± 15 %, ≤ -25 °C v ≥ +70 °C |
| Hysteresis | 3…15 % |
| **Electrical data** | |
| Operating voltage $U_B$ | 10…30 VDC |
| Ripple $U_{ss}$ | ≤ 10 % $U_{Bmax}$ |
| DC rated operating current $I_e$ | ≤ 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 $I_e$ | ≤ 1.8 V |
| Wire break/reverse polarity protection | yes/Complete |
| Output function | 4-wire, Complementary contact, PNP |
| DC field stability | 300 mT |
| AC field stability | 300 $mT_{ss}$ |
| Insulation class | ⧈ |
| Switching frequency | 1 kHz |
| **Mechanical data** | |
| Design | Threaded barrel, M30 x 1.5 |

## Features

- Gewinderohr, M30 x 1,5
- Kunststoff, LCP
- Factor 1 for all metals
- Protection class IP68
- Resistant to magnetic fields
- Extended temperature range
- High switching frequency
- DC 4-wire, 10…30 VDC
- Changeover contact, PNP output
- M12 x 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.

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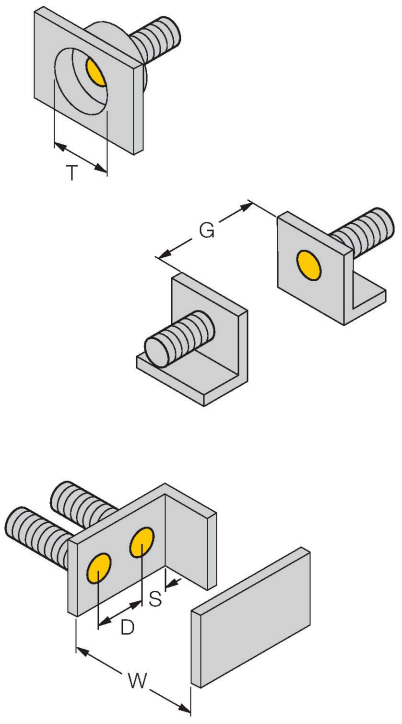
## Technical data

| | |
|---|---|
| Dimensions | 62 mm |
| Housing material | Plastic, LCP |
| Active area material | Plastic, LCP |
| Max. tightening torque of housing nut | 5 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 |
| Switching state | LED |

## 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 B | Ø 30 mm |

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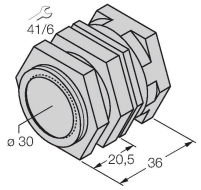
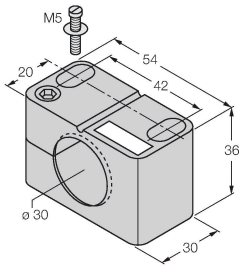
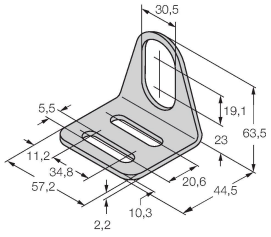
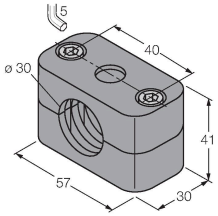
## Accessories

| 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. |

| BST-30B | 6947216 |
|---|---|
|  | Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6 |

| 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 |

## Accessories

| Dimension drawing | Type | ID | |
|---|---|---|---|
| | RKC4.4T-2/TEL | 6625013 | Connection cable, M12 female connector, straight, 4-pin, cable length: 2 m, jacket material: PVC, black; cULus approval |