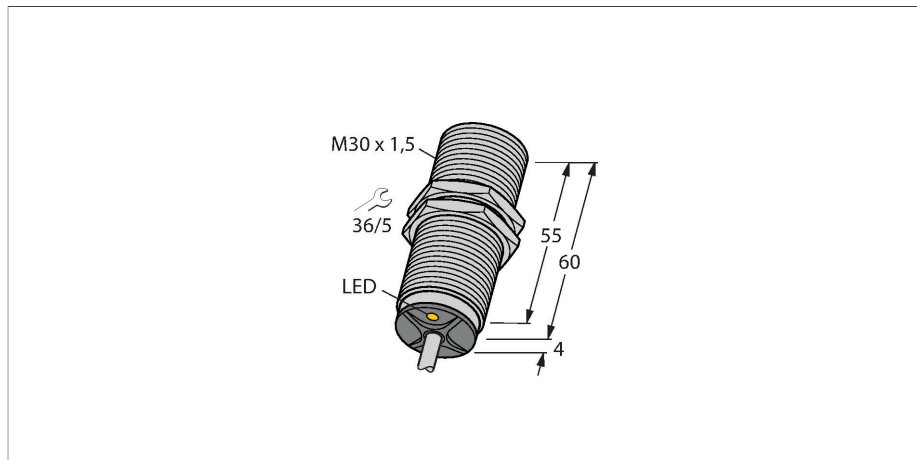


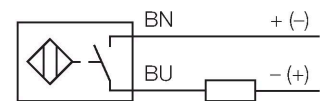
# BI10-M30-AD4X Inductive sensor



## Features

- M30 x 1.5 threaded tube
- Chrome-plated brass
- DC 2-wire, 10...65 VDC
- NO contact
- Cable connection

## Wiring diagram



## Technical data

|   |   |
|---|---|
| Type                                      | BI10-M30-AD4X                                       |
| Ident. no.                                | 44170   |
| Rated switching distance                  | 10 mm   |
| Mounting conditions                       | Flush   |
| Secured operating distance                | ≤ (0.81 × Sn) mm                                    |
| Correction factors                        | St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4 |
| Repeat accuracy                           | ≤ 2 % of full scale                                 |
| Temperature drift                         | ≤ ± 10 %  |
| Hysteresis                                | 1...15 %  |
| Ambient temperature                       | -25...+70 °C  |
| Operating voltage                         | 10...65 VDC   |
| Residual ripple                           | ≤ 10 % U <sub>ss</sub>                              |
| DC rated operational current              | ≤ 100 mA  |
| Residual current                          | ≤ 0.6 mA  |
| Isolation test voltage                    | ≤ 0.5 kV  |
| Short-circuit protection                  | yes / Cyclic  |
| Voltage drop at I <sub>e</sub>            | ≤ 5 V   |
| Wire breakage/Reverse polarity protection | Complete  |
| Output function                           | 2-wire, NO contact, 2-wire                          |
| Smallest operating current                | ≥ 3 mA  |
| Switching frequency                       | 0.5 kHz   |
| <b>Design</b>                             | <b>Threaded barrel, M30 × 1.5</b>                   |
| Dimensions                                | 64 mm   |
| Housing material                          | Metal, CuZn, Chrome-plated                          |
| Active area material                      | Plastic, PA12-GF30                                  |
| End cap                                   | Plastic, EPTR                                       |
| Max. tightening torque housing nut        | 75 Nm   |

## Functional principle

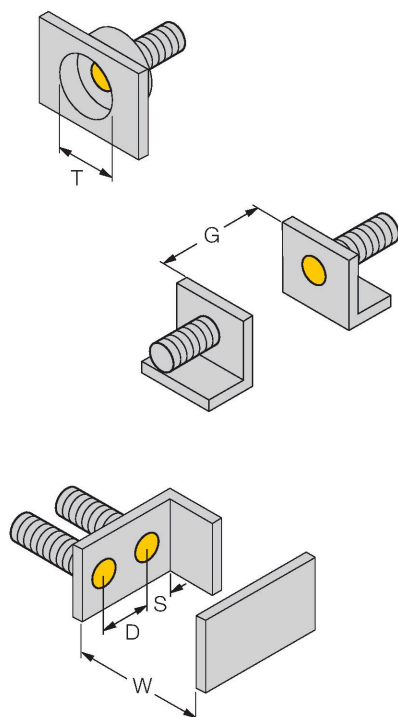
Inductive sensors detect metal objects contactless and wear-free. For this, they use a high-frequency electromagnetic AC field that interacts with the target. Inductive sensors generate this field via an RLC circuit with a ferrite coil.

## Technical data

|                       |  |
|-----------------------|--|
| Electrical connection | Cable                                      |
| Cable quality         | Ø 5.2 mm, LifYY, PVC, 2 m                  |
| Core cross-section    | 2 x 0.34 mm <sup>2</sup>                   |
| Vibration resistance  | 55 Hz (1 mm)                               |
| Shock resistance      | 30 g (11 ms)                               |
| Protection class      | IP67                                       |
| MTTF                  | 2283 years acc. to SN 29500 (Ed. 99) 40 °C |
| Switching state       | LED, Yellow                                |

## Mounting instructions

### Mounting instructions/Description



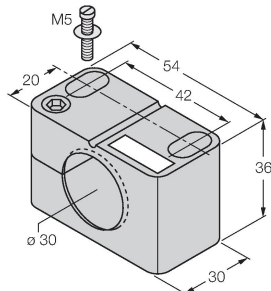
|                        |         |
|------------------------|---------|
| Distance D             | 2 x B   |
| Distance W             | 3 x Sn  |
| Distance T             | 3 x B   |
| Distance S             | 1.5 x B |
| Distance G             | 6 x Sn  |
| Diameter active area B | Ø 30 mm |

## Accessories

### BST-30B

6947216

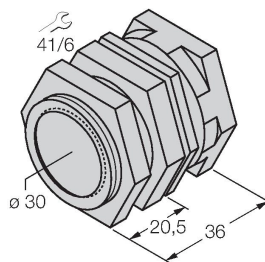
Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6



### QM-30

6945103

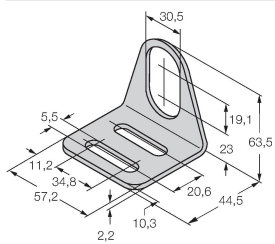
Quick-mount bracket with dead-stop; material: Chrome-plated brass. Male thread M36 x 1.5. Note: The switching distance of the proximity switches may change when using quick-mount brackets.



**MW30**

**6945005**

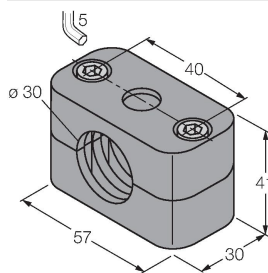
Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)



**BSS-30**

**6901319**

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





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