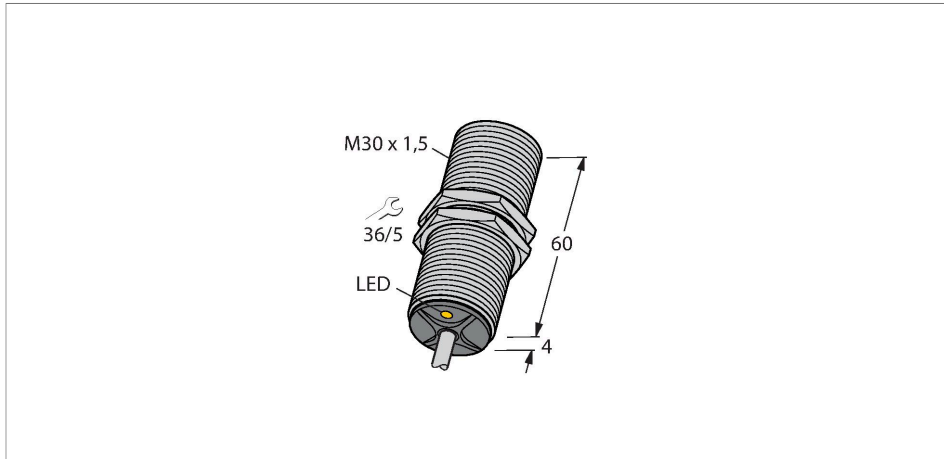


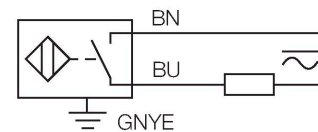
# BI10-G30-AZ3X 8M Inductive Sensor



## Features

- Threaded barrel, M30 x 1.5
- Chrome-plated brass
- AC 2-wire, 20...250 VAC
- DC 2-wire, 10...300 VDC
- NO contact
- Cable connection

## Wiring diagram

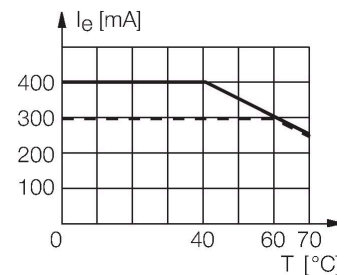


## Technical data

|                              |                                                     |
|------------------------------|-----------------------------------------------------|
| Type                         | BI10-G30-AZ3X 8M                                    |
| ID no.                       | 4345495                                             |
| Rated switching distance     | 10 mm                                               |
| Mounting conditions          | Flush                                               |
| Secured operating distance   | $\leq (0.81 \times S_n)$ mm                         |
| Correction factors           | St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4 |
| Repeat accuracy              | $\leq 2$ % of full scale                            |
| Temperature drift            | $\leq \pm 10$ %                                     |
| Hysteresis                   | 3...15 %                                            |
| Ambient temperature          | -25...+70 °C                                        |
| Operating voltage            | 20...250 VAC                                        |
| Operating voltage            | 10...300 VDC                                        |
| AC rated operational current | $\leq 400$ mA                                       |
| DC rated operational current | $\leq 300$ mA                                       |
| Frequency                    | $\geq 50 \dots \leq 60$ Hz                          |
| Residual current             | $\leq 1.7$ mA                                       |
| Isolation test voltage       | $\leq 1.5$ kV                                       |
| Surge current                | $\leq 8$ A ( $\leq 10$ ms max. 5 Hz)                |
| Voltage drop at $I_e$        | $\leq 6$ V                                          |
| Output function              | 2-wire, NO contact, 2-wire                          |
| Smallest operating current   | $\geq 3$ mA                                         |
| Switching frequency          | 0.02 kHz                                            |

## 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

|                                       |                                            |
|---------------------------------------|--------------------------------------------|
| Design                                | Threaded barrel, M30 × 1.5                 |
| Dimensions                            | 64 mm                                      |
| Housing material                      | Metal, CuZn, Chrome-plated                 |
| Active area material                  | Plastic, PA12-GF30                         |
| End cap                               | Plastic, EPTR                              |
| Max. tightening torque of housing nut | 75 Nm                                      |
| Electrical connection                 | Cable                                      |
| Cable quality                         | Ø 5.2 mm, LifYY, PVC, 8 m                  |
| Core cross-section                    | 3 x 0.5 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, Red                                   |

## Mounting instructions

### Mounting instructions/Description

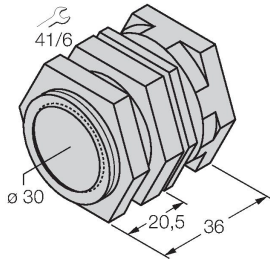


|                        |         |
|------------------------|---------|
| Distance D             | 2 x B   |
| Distance W             | 3 x Sn  |
| Distance T             | 3 x B   |
| Distance S             | 1.5 x B |
| Distance G             | 6 x Sn  |
| Diameter active area B | Ø 30 mm |

## Accessories

QM-30

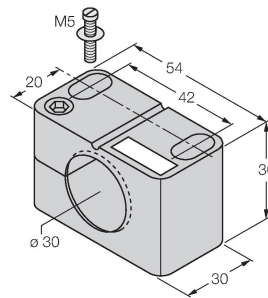
6945103



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

MW-30

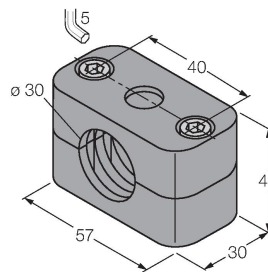
6945005



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