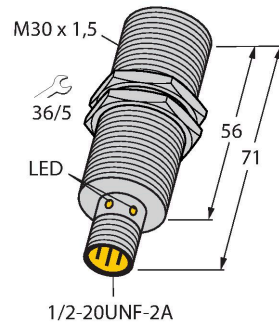


# BI15-G30-ADZ30X2-B3131

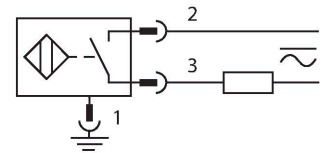
## Inductive Sensor – With Increased Switching Distance



### Features

- Threaded barrel, M30 x 1.5
- Chrome-plated brass
- Large sensing range
- AC 2-wire, 20...250 VDC
- DC 2-wire, 10...300 VDC
- NO contact
- 1/2" male connector

### Wiring diagram

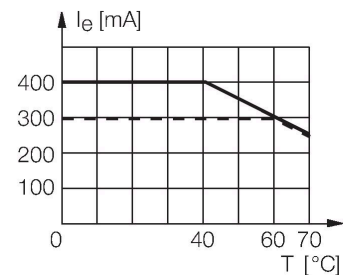


### Technical data

|                                           |                                                            |
|-------------------------------------------|------------------------------------------------------------|
| Type                                      | BI15-G30-ADZ30X2-B3131                                     |
| ID no.                                    | 4207201                                                    |
| Rated switching distance                  | 15 mm                                                      |
| Mounting conditions                       | Flush                                                      |
| Secured operating distance                | $\leq (0.81 \times S_n) \text{ mm}$                        |
| Correction factors                        | St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4        |
| Repeat accuracy                           | $\leq 2 \text{ \% of full scale}$                          |
| Temperature drift                         | $\leq \pm 10 \text{ \%}$                                   |
| Hysteresis                                | 3...15 %                                                   |
| Ambient temperature                       | -25...+70 °C                                               |
| Operating voltage                         | 20...250 VAC                                               |
| Operating voltage                         | 10...300 VDC                                               |
| AC rated operational current              | $\leq 400 \text{ mA}$                                      |
| DC rated operational current              | $\leq 300 \text{ mA}$                                      |
| Frequency                                 | $\geq 50 \dots \leq 60 \text{ Hz}$                         |
| Residual current                          | $\leq 1.7 \text{ mA}$                                      |
| Isolation test voltage                    | $\leq 1.5 \text{ kV}$                                      |
| Surge current                             | $\leq 3 \text{ A} (\leq 20 \text{ ms max. } 5 \text{ Hz})$ |
| Short-circuit protection                  | yes / Latching                                             |
| Voltage drop at $I_o$                     | $\leq 6 \text{ V}$                                         |
| Wire breakage/Reverse polarity protection | yes / Complete                                             |
| Output function                           | 2-wire, NO contact, 2-wire                                 |
| Smallest operating current                | $\geq 3 \text{ mA}$                                        |

### 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

|                                       |                                            |
|---------------------------------------|--------------------------------------------|
| Switching frequency                   | 0.02 kHz                                   |
| <b>Design</b>                         | <b>Threaded barrel, M30 × 1.5</b>          |
| Dimensions                            | 71 mm                                      |
| Housing material                      | Metal, CuZn, Chrome-plated                 |
| Active area material                  | Plastic, PBT-GF30                          |
| Max. tightening torque of housing nut | 75 Nm                                      |
| Electrical connection                 | Connector, 1/2"                            |
| 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 |
| <b>Power-on indication</b>            | <b>LED, Green</b>                          |
| Switching state                       | LED, Red                                   |

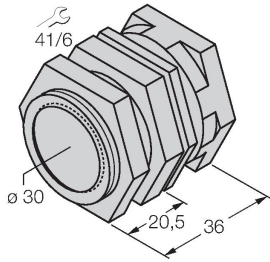
## Mounting instructions

| 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

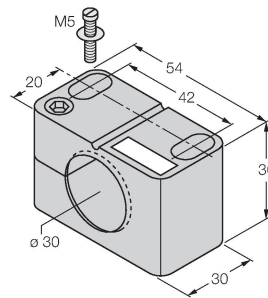
6945103



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

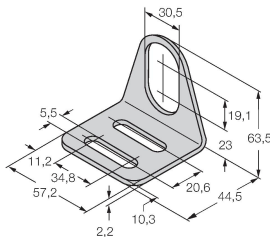
6947216



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

MW-30

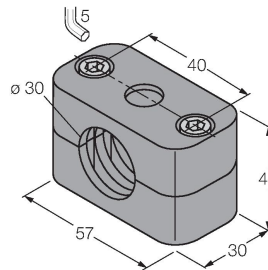
6945005



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