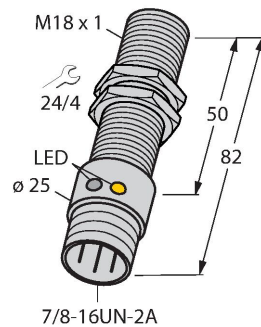


# BI8-G18-ADZ30X2-B1331

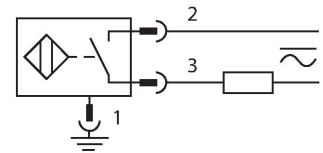
## Inductive Sensor – With Increased Switching Distance



### Features

- Threaded barrel, M18 x 1
- Chrome-plated brass
- Large sensing range
- AC 2-wire, 20...250 VAC
- DC 2-wire, 10...300 VDC
- NO contact
- 7/8" male connector

### Wiring diagram

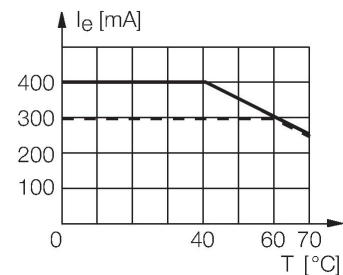


### Technical data

|                                        |                                                     |
|----------------------------------------|-----------------------------------------------------|
| Type                                   | BI8-G18-ADZ30X2-B1331                               |
| ID                                     | 4209397                                             |
| General data                           |                                                     |
| Rated switching distance               | 8 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 %                                            |
| Electrical data                        |                                                     |
| Operating voltage $U_b$                | 20...250 VAC                                        |
| Operating voltage $U_b$                | 10...300 VDC                                        |
| AC rated operational current           | $\leq 400$ mA                                       |
| DC rated operating current $I_o$       | $\leq 300$ mA                                       |
| Frequency                              | $\geq 50... \leq 60$ Hz                             |
| Residual current                       | $\leq 1.7$ mA                                       |
| Isolation test voltage                 | 1.5 kV                                              |
| Surge current                          | $\leq 3$ A ( $\leq 20$ ms max. 5 Hz)                |
| Short-circuit protection               | yes/Latching                                        |
| Voltage drop at $I_o$                  | $\leq 6$ V                                          |
| Wire break/reverse polarity protection | yes/Complete                                        |
| Output function                        | 2-wire, NO contact, 2-wire                          |

### 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.

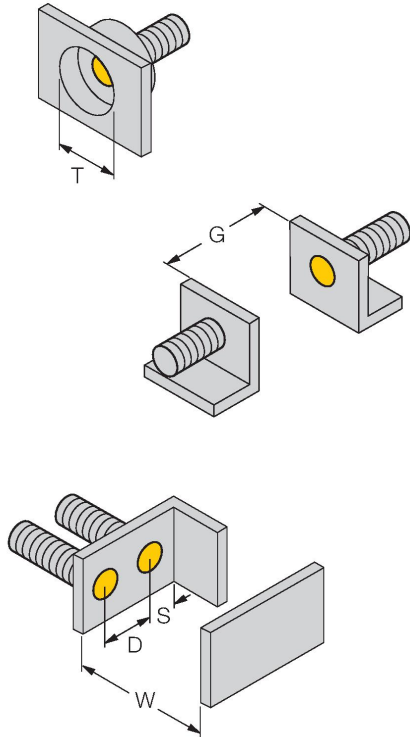


## Technical data

|                                       |                                            |
|---------------------------------------|--------------------------------------------|
| Smallest operating current            | ≥ 3 mA                                     |
| Switching frequency                   | 0.02 kHz                                   |
| <b>Mechanical data</b>                |                                            |
| Design                                | Threaded barrel, M18 x 1                   |
| Dimensions                            | 82 mm                                      |
| Housing material                      | Metal, CuZn, Chrome-plated                 |
| Active area material                  | Plastic, PA12-GF30                         |
| Max. tightening torque of housing nut | 25 Nm                                      |
| Electrical connection                 | Connector, 7/8"                            |
| <b>Environmental conditions</b>       |                                            |
| Ambient temperature                   | -25...+70 °C                               |
| 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 |
| Power-on indication                   | LED, Green                                 |
| Switching state                       | LED, Red                                   |

## Mounting instructions

### Mounting instructions/Description

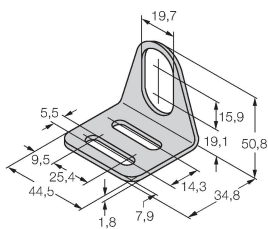


|                        |         |
|------------------------|---------|
| Distance D             | 2 x B   |
| Distance W             | 3 x Sn  |
| Distance T             | 3 x B   |
| Distance S             | 1.5 x B |
| Distance G             | 6 x Sn  |
| Diameter active area B | Ø 18 mm |

## Accessories

MW18

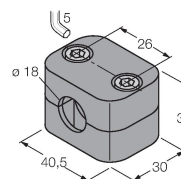
6945004



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

BSS-18

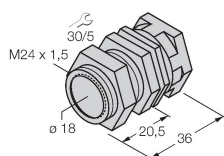
6901320



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

QM-18

6945102



Quick-mount bracket with dead-stop; material: Chrome-plated brass. Male thread M24 x 1.5. Note: The switching distance of the proximity switches may change when using quick-mount brackets.