

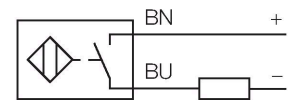
# BI2-EG08-AG6X

## Inductive Sensor

### Features

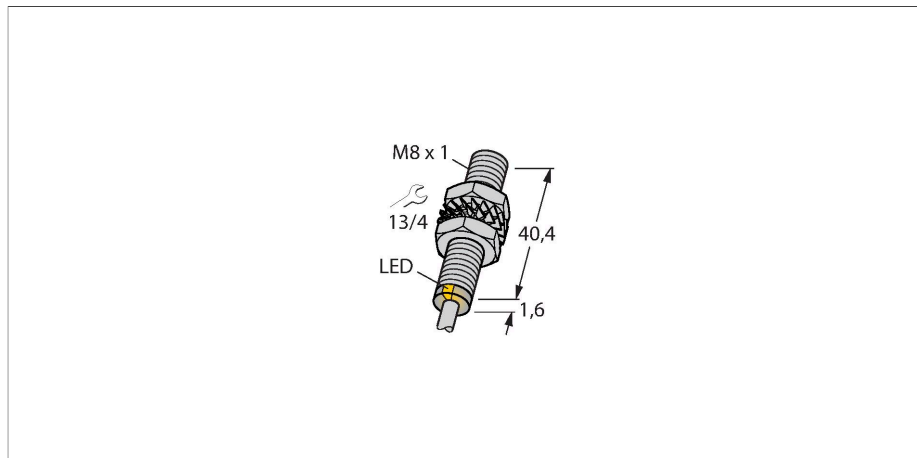
- Threaded barrel, M8 x 1
- Stainless steel, 1.4427 SO
- DC 2-wire, 10...30 VDC
- Polarized version
- NO contact
- Cable connection

### Wiring diagram



### 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

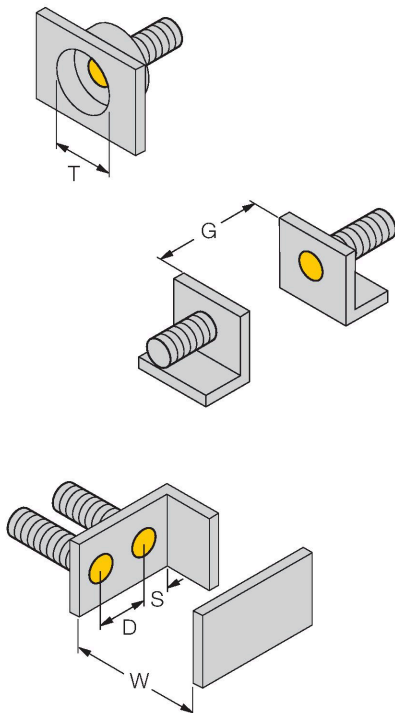
|   |   |
|---|---|
| Type                                      | BI2-EG08-AG6X                                       |
| ID  | 100017999   |
| <b>General data</b>                       |   |
| Rated switching distance                  | 2 mm  |
| Mounting conditions                       | Flush   |
| 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                                | 1...15 %  |
| <b>Electrical data</b>                    |   |
| Operating voltage                         | 10...30 VDC   |
| Residual ripple                           | $\leq 10$ % $U_{ss}$                                |
| DC rated operational current              | $\leq 100$ mA                                       |
| Residual current                          | $\leq 0.6$ mA                                       |
| Isolation test voltage                    | $\leq 0.5$ kV                                       |
| Short-circuit protection                  | yes / Cyclic  |
| Voltage drop at $I_o$                     | $\leq 4.2$ V  |
| Wire breakage/Reverse polarity protection | Polarized   |
| Output function                           | NO contact, 2-wire                                  |
| Smallest operating current                | $\geq 3$ mA   |
| Switching frequency                       | 0.3 kHz   |
| <b>Mechanical data</b>                    |   |
| Design                                    | Threaded barrel, M8 x 1                             |
| Dimensions                                | 42 mm   |
| Housing material                          | Stainless steel, 1.4427 SO                          |

## Technical data

|                                       |  |
|---------------------------------------|--|
| Active area material                  | Plastic, PA12-GF30                         |
| End cap                               | Plastic, PA12-GF30                         |
| Max. tightening torque of housing nut | 5 Nm                                       |
| Electrical connection                 | Cable                                      |
| Cable quality                         | Ø 4 mm, LifYY-11Y, PUR, 2 m                |
| Core cross-section                    | 2 x 0.25 mm <sup>2</sup>                   |
| <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 |
| Switching state                       | LED, Yellow                                |

## Mounting instructions

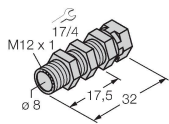
### Mounting instructions/Description



|                        |         |
|------------------------|---------|
| 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 8 mm  |

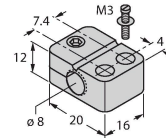
## Accessories

**QM-08** **6945100**



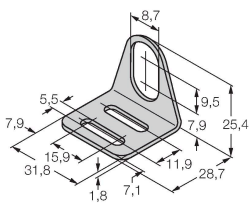
Quick-mount bracket with dead-stop, chrome-plated brass, male thread M12 x 1. Note: The switching distance of proximity switches may be reduced through the use of quick-mount brackets.

**BST-08B** **6947210**



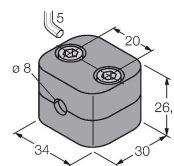
Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6

**MW-08** **6945008**



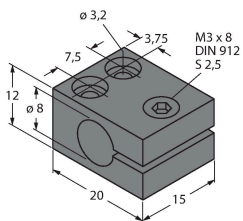
Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)

**BSS-08** **6901322**



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

**MBS80** **69479**



Mounting clamp for smooth barrel sensors; mounting block material: Anodized aluminum