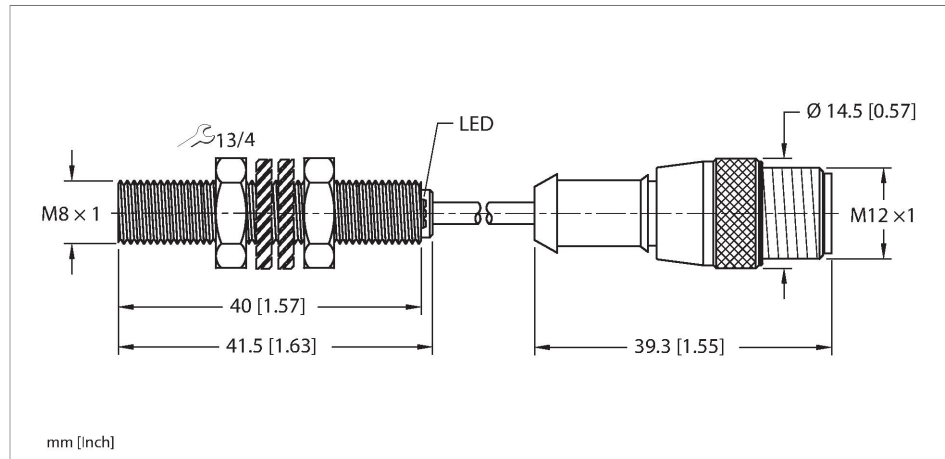


# BI2-EG08-AP6X-0.2-RS4T/S1589

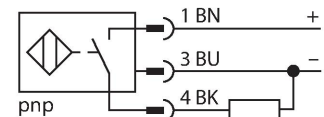
## Inductive Sensor – With Weldguard® coating



### Features

- Threaded barrel, M8 × 1
- Stainless steel, 1.4305 (AISI 303)
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- Pigtail with male end M12 x 1

### Wiring diagram



### Technical data

|                                           |                                                     |
|-------------------------------------------|-----------------------------------------------------|
| Type                                      | BI2-EG08-AP6X-0.2-RS4T/S1589                        |
| ID                                        | 4602084                                             |
| Special version                           | S1589 Corresponds to: With weldguard coating        |
| <b>General data</b>                       |                                                     |
| Rated switching distance                  | 2 mm                                                |
| Mounting conditions                       | Flush                                               |
| Secured operating distance                | ≤ (0.81 × S <sub>n</sub> ) mm                       |
| Correction factors                        | St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4 |
| Repeat accuracy                           | ≤ 2 % of full scale                                 |
| Hysteresis                                | 20 %                                                |
| <b>Electrical data</b>                    |                                                     |
| Operating voltage U <sub>B</sub>          | 10...30 VDC                                         |
| Ripple U <sub>ss</sub>                    | ≤ 10 % U <sub>Bmax</sub>                            |
| DC rated operating current I <sub>B</sub> | ≤ 150 mA                                            |
| No-load current                           | ≤ 15 mA                                             |
| Residual current                          | ≤ 0.1 mA                                            |
| Isolation test voltage                    | 0.5 kV                                              |
| Short-circuit protection                  | yes/Cyclic                                          |
| Voltage drop at I <sub>B</sub>            | ≤ 1.8 V                                             |
| Wire break/reverse polarity protection    | yes/Complete                                        |
| Output function                           | 3-wire, NO contact, PNP                             |
| Switching frequency                       | 3 kHz                                               |

### Functional principle

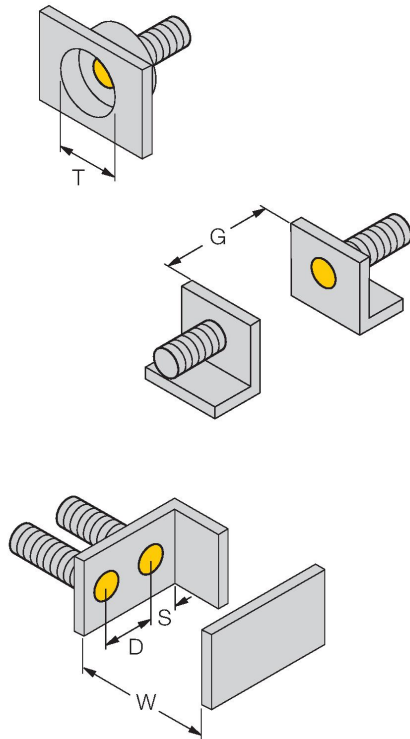
Inductive sensors detect metal objects contactless and wear-free. For this purpose they use a high-frequency electromagnetic AC field that interacts with the target. The sensors hosting a ferrite core coil generate the AC field through an LC resonant circuit.

## Technical data

| Mechanical data                       |                                            |
|---------------------------------------|--------------------------------------------|
| Design                                | Threaded barrel, M8 x 1                    |
| Dimensions                            | 41.5 mm                                    |
| Housing material                      | Stainless steel, 1.4305 (AISI 303)         |
| Active area material                  | Plastic, PA6.6                             |
| End cap                               | Plastic, PP                                |
| Material coupling nut                 | metal, CuZn, nickel-plated                 |
| Max. tightening torque of housing nut | 5 Nm                                       |
| Electrical connection                 | Cable with connector, M12 × 1              |
| Cable quality                         | Ø 3.3 mm, Gray, LiFY-11Y, PUR, 0.2 m       |
| Core cross-section                    | 3 x 0.14 mm <sup>2</sup>                   |
| Environmental conditions              |                                            |
| 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



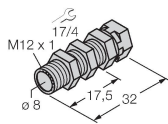
|                        |         |
|------------------------|---------|
| Distance D             | 2 x B   |
| Distance W             | 3 x Sn  |
| Distance T             | 3 x B   |
| Distance S             | 1.5 x B |
| Distance G             | 6 x Sn  |
| Diameter active area B | Ø 8 mm  |

## Accessories

QM-08

6945100

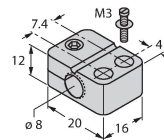
Quick-mount bracket with dead-stop, chrome-plated brass, male thread M12 x 1. Note: The switching distance of proximity switches may be reduced through the use of quick-mount brackets.



BST-08B

6947210

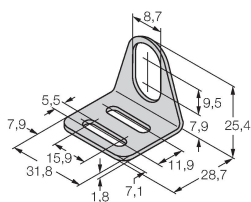
Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6



MW08

6945008

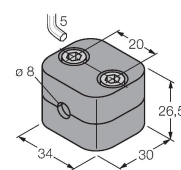
Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)



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

