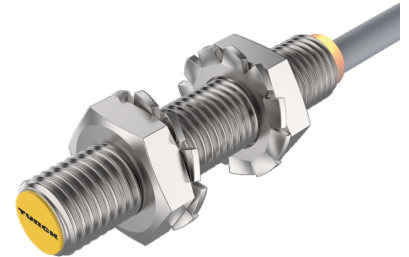
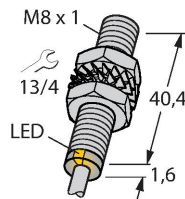


# BI2U-EG08-AP6X

## Inductive Sensor – With Extended Switching Distance



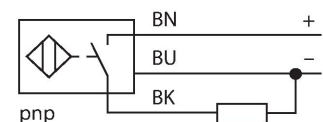
### Technical data

|                                        |                                                                      |
|----------------------------------------|----------------------------------------------------------------------|
| Type                                   | BI2U-EG08-AP6X                                                       |
| ID                                     | 4602032                                                              |
| <b>General data</b>                    |                                                                      |
| Rated switching distance               | 2 mm                                                                 |
| Mounting conditions                    | Flush                                                                |
| Secured operating distance             | $\leq (0.81 \times S_n)$ mm                                          |
| Repeat accuracy                        | $\leq 2 \%$ of full scale                                            |
| Temperature drift                      | $\leq \pm 10 \%$                                                     |
|                                        | $\leq \pm 20 \%, \leq -25^\circ\text{C} \vee \geq +70^\circ\text{C}$ |
| Hysteresis                             | 3...15 %                                                             |
| <b>Electrical data</b>                 |                                                                      |
| Operating voltage $U_B$                | 10...30 VDC                                                          |
| Ripple $U_{ss}$                        | $\leq 10 \%$ $U_{Bmax}$                                              |
| DC rated operating current $I_e$       | $\leq 150$ mA                                                        |
| No-load current                        | $\leq 15$ mA                                                         |
| Residual current                       | $\leq 0.1$ mA                                                        |
| Isolation test voltage                 | 0.5 kV                                                               |
| Short-circuit protection               | yes/Cyclic                                                           |
| Voltage drop at $I_e$                  | $\leq 1.8$ V                                                         |
| Wire break/reverse polarity protection | yes/Complete                                                         |
| Output function                        | 3-wire, NO contact, PNP                                              |
| DC field stability                     | 200 mT                                                               |
| AC field stability                     | 200 mT <sub>ss</sub>                                                 |
| Insulation class                       | □                                                                    |

### Features

- Threaded barrel, M8 x 1
- Stainless steel, 1.4427 SO
- Factor 1 for all metals
- Protection class IP68
- Resistant to magnetic fields
- Large switching distance
- High switching frequency
- Recessed mountable
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- Cable connection

### Wiring diagram



### Functional principle

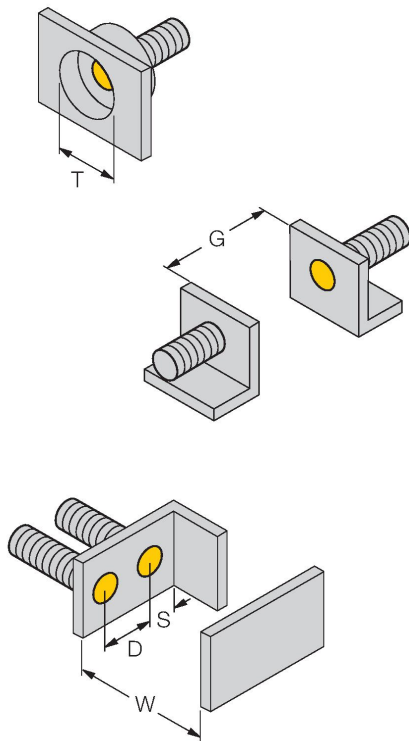
Inductive sensors are designed for wear-free and contactless detection of metal objects. uprox+ sensors have significant advantages due to their patented multi-coil system. They excel thanks to their optimum switching distances, maximum flexibility and operational reliability as well as efficient standardization.

## Technical data

|                                       |                                           |
|---------------------------------------|-------------------------------------------|
| Switching frequency                   | 1 kHz                                     |
| <b>Mechanical data</b>                |                                           |
| Design                                | Threaded barrel, M8 x 1                   |
| Dimensions                            | 42 mm                                     |
| Housing material                      | Stainless steel, 1.4427 SO                |
| Active area material                  | Plastic                                   |
| End cap                               | Plastic, PA12-GF30                        |
| Max. tightening torque of housing nut | 5 Nm                                      |
| Electrical connection                 | Cable                                     |
| Cable quality                         | Ø 4 mm, LifY-11Y, PUR, 2 m                |
| Core cross-section                    | 3 x 0.25 mm <sup>2</sup>                  |
| <b>Environmental conditions</b>       |                                           |
| Ambient temperature                   | -30...+85 °C                              |
| Vibration resistance                  | 55 Hz (1 mm)                              |
| Shock resistance                      | 30 g (11 ms)                              |
| Protection class                      | IP68                                      |
| MTTF                                  | 874 years acc. to SN 29500 (Ed. 99) 40 °C |
| Switching state                       | LED, Yellow                               |

## Mounting instructions

### Mounting instructions/Description



Distance D 16 mm

Distance W 6 mm

Distance T 24 mm

Distance S 12 mm

Distance G 12 mm

Diameter active area B Ø 8 mm

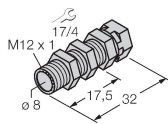
All flush mountable uprox+ threaded barrel types are also recessed mountable. Safe operation is ensured if the sensor is screwed in by half a turn.

## Accessories

QM-08

6945100

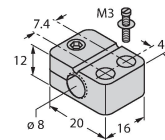
Quick-mount bracket with dead-stop, chrome-plated brass, male thread M12 x 1. Note: The switching distance of proximity switches may be reduced through the use of quick-mount brackets.



BST-08B

6947210

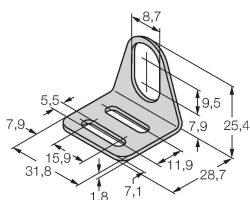
Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6



MW08

6945008

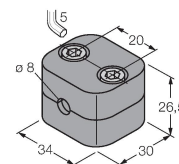
Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)



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

