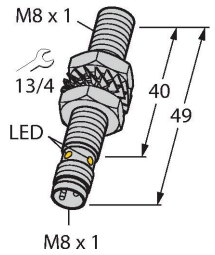
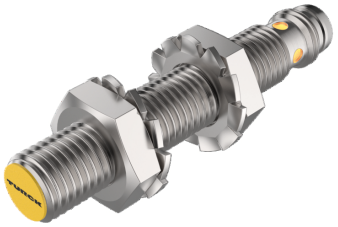
# BI2U-EG08-AP6X-V1131
# Inductive Sensor – With Extended Switching Distance



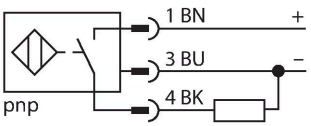
## Technical data

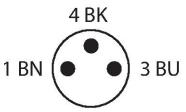
| Type | BI2U-EG08-AP6X-V1131 |
|---|---|
| ID | 4602033 |
| **General data** | |
| Rated switching distance | 2 mm |
| Mounting conditions | Flush |
| Secured operating distance | ≤ (0.81 × Sn) mm |
| Repeat accuracy | ≤ 2 % of full scale |
| Temperature drift | ≤ ±10 % |
| | ≤ ± 20 %, ≤ -25 °C v ≥ +70 °C |
| Hysteresis | 3…15 % |
| **Electrical data** | |
| Operating voltage $U_B$ | 10…30 VDC |
| Ripple $U_{ss}$ | ≤ 10 % $U_{Bmax}$ |
| DC rated operating current $I_e$ | ≤ 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 $I_e$ | ≤ 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 $mT_{ss}$ |
| 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
- M8 x 1 male connector

## 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

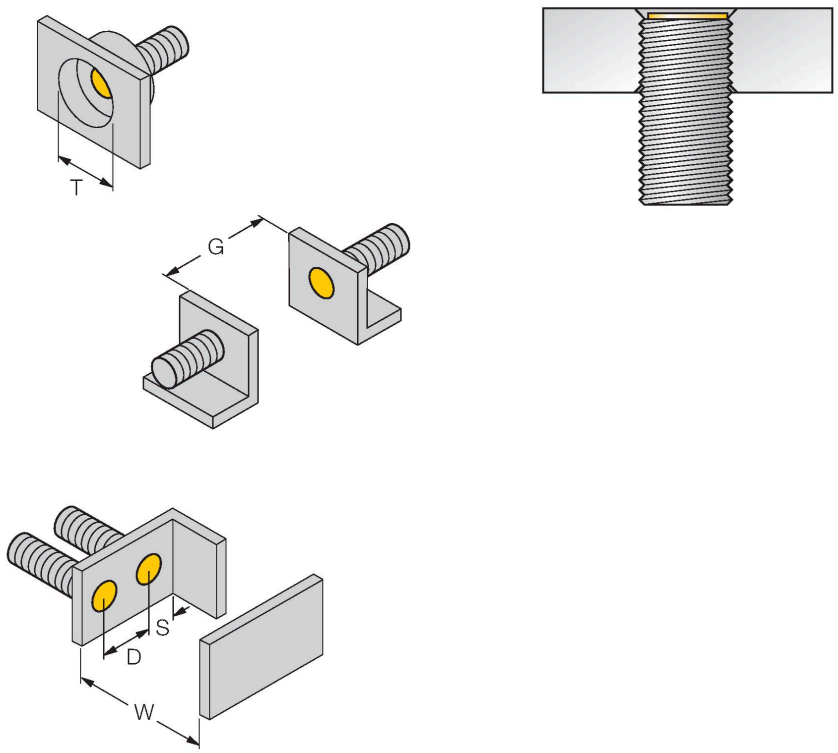
## Technical data

| | |
|---|---|
| Switching frequency | 1 kHz |
| **Mechanical data** | |
| Design | Threaded barrel, M8 x 1 |
| Dimensions | 49 mm |
| Housing material | Stainless steel, 1.4427 SO |
| Active area material | Plastic |
| Max. tightening torque of housing nut | 5 Nm |
| Electrical connection | Connector, M8 × 1 |
| **Environmental conditions** | |
| 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 |

distances, maximum flexibility and operational reliability as well as efficient standardization.

## Mounting instructions

Mounting instructions/Description

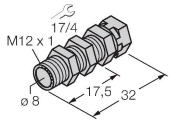



| | |
|---|---|
| Distance D | 16 mm |
| Distance W | 6 mm |
| Distance T | 24 mm |
| Distance S | 12 mm |
| Distance G | 12 mm |
| Diameter active area B | Ø 8 mm |

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.

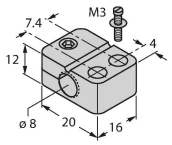
## Accessories

| QM-08 | 6945100 |
|---|---|



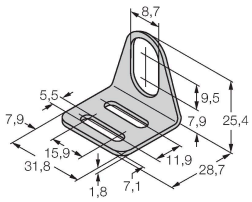

Quick-mount bracket with dead-stop, chrome-plated brass, male thread M12 x 1. Note: The switching distance of proximity switches may be reduced through the use of quick-mount brackets.

| BST-08B | 6947210 |
|---|---|



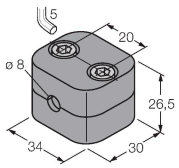

Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6

| MW08 | 6945008 |
|---|---|



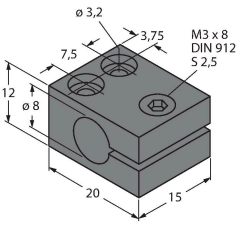

Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)

| BSS-08 | 6901322 |
|---|---|




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

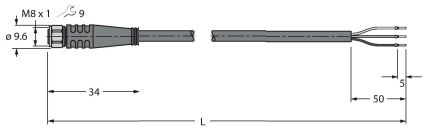
| MBS80 | 69479 |
|---|---|




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

## Wiring accessories

| Dimension drawing | Type | ID | |
|---|---|---|---|
| | PKGV3M-2/TEL | 6625385 | Connection cable, M8 female connector, straight, 3-pin, stainless steel coupling nut, cable length: 2 m, jacket material: PVC, black; cULus approval |




BI2U-EG08-AP6X-V1131| 02/21/2025 13-27 | technical changes reserved