

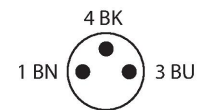
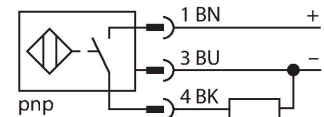
# BI1U-EH04-AP6X-V1331

## Inductive Sensor

### Features

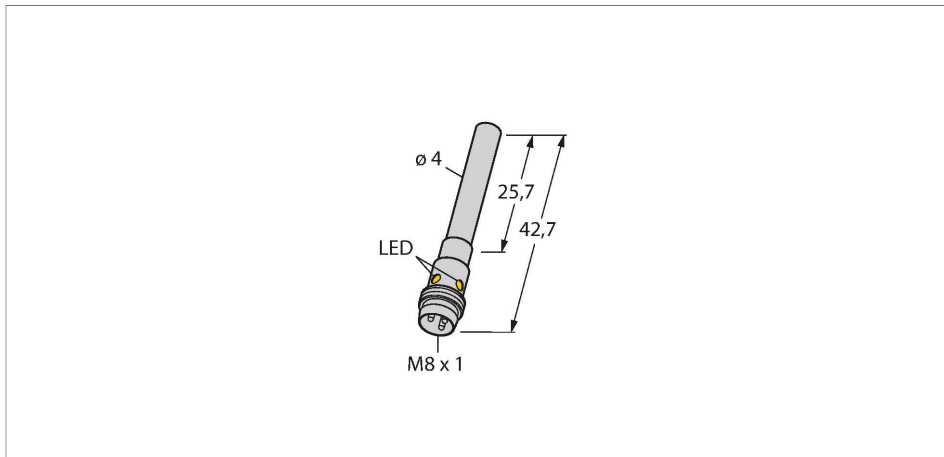
- Smooth barrel, Ø 4 mm
- Stainless steel, 1.4427 SO
- Factor 1 for all metals
- Resistant to magnetic fields
- Large switching distance
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- M8 x 1 male connector

### Wiring diagram



### Functional principle

Inductive sensors detect metal objects contactless and wear-free. *uprox*<sup>®</sup>3 sensors have significant advantages due to their patented ferrite-coreless multicore system. They excel in largest switching distances, maximum flexibility and operational reliability as well as efficient standardization.



### Technical data

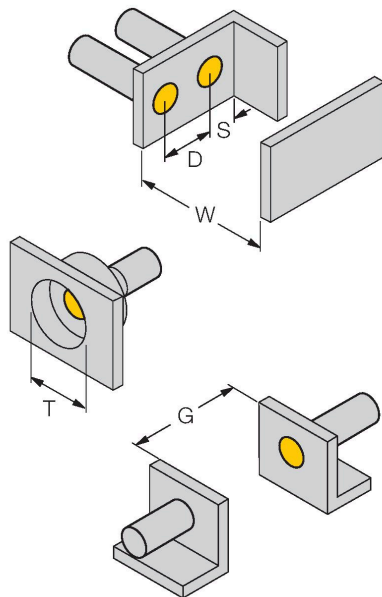
|   |                               |
|---|-------------------------------|
| Type                                      | BI1U-EH04-AP6X-V1331          |
| Ident. no.                                | 4602113                       |
| Rated switching distance                  | 1 mm                          |
| Mounting conditions                       | Flush                         |
| Secured operating distance                | ≤ (0.81 × S <sub>n</sub> ) mm |
| Repeat accuracy                           | ≤ 2 % of full scale           |
| Temperature drift                         | ≤ ± 10 %                      |
|   | ≤ ± 20 %, ≤ 0 °C              |
| Hysteresis                                | 3...15 %                      |
| Ambient temperature                       | -25...+70 °C                  |
| Operating voltage                         | 10...30 VDC                   |
| Residual ripple                           | ≤ 10 % U <sub>s</sub>         |
| DC rated operational current              | ≤ 100 mA                      |
| No-load current                           | ≤ 20 mA                       |
| Residual current                          | ≤ 0.1 mA                      |
| Isolation test voltage                    | ≤ 0.5 kV                      |
| Short-circuit protection                  | yes / Cyclic                  |
| Voltage drop at I <sub>e</sub>            | ≤ 1.8 V                       |
| Wire breakage/Reverse polarity protection | yes / Complete                |
| Output function                           | 3-wire, NO contact, PNP       |
| Switching frequency                       | 2 kHz                         |
| Design                                    | Smooth barrel, 4 mm           |
| Dimensions                                | 42.7 mm                       |
| Housing material                          | Stainless steel, 1.4427 SO    |

## Technical data

|                       |   |
|-----------------------|---|
| Active area material  | Plastic, PA12                             |
| Electrical connection | Connector, M8 x 1                         |
| Vibration resistance  | 55 Hz (1 mm)                              |
| Shock resistance      | 30 g (11 ms)                              |
| Protection class      | IP67                                      |
| MTTF                  | 874 years acc. to SN 29500 (Ed. 99) 40 °C |
| Switching state       | LED, Yellow                               |

## Mounting instructions

### Mounting instructions/Description

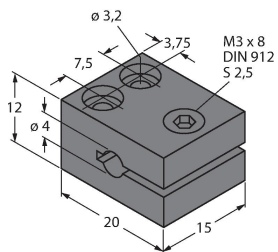


|                        |         |
|------------------------|---------|
| Distance D             | 2 x B   |
| Distance W             | 3 x Sn  |
| Distance T             | 3 x B   |
| Distance S             | 1.5 x B |
| Distance G             | 6 x Sn  |
| Diameter active area B | Ø 4 mm  |

## Accessories

MBS40

69477



Fixing clamp; material mounting block: Anodized aluminium