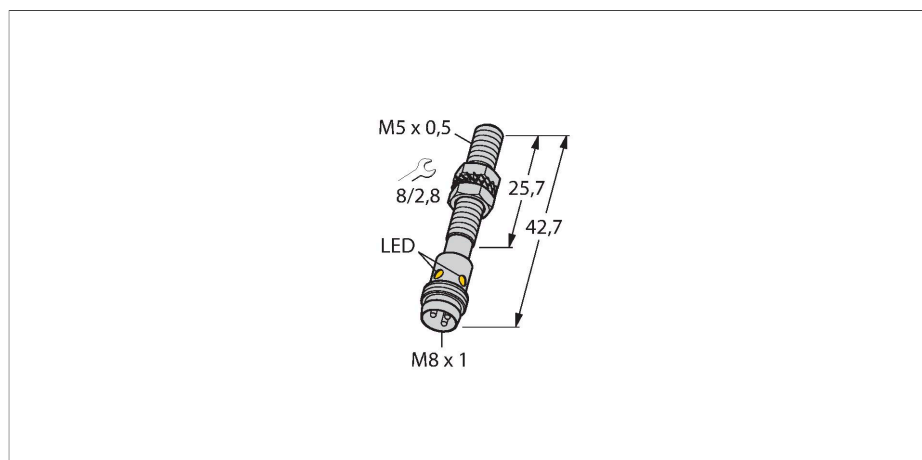


# BI1-EG05-AP6X-V1331

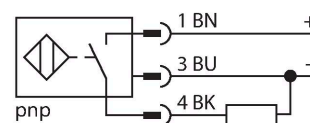
## Inductive sensor



### Features

- M5 x 0.5 threaded barrel
- Stainless steel, 1.4427 SO
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- M8 x 1 male connector

### Wiring diagram



### Technical data

|   |   |
|---|---|
| Type                                      | BI1-EG05-AP6X-V1331                                 |
| Ident. no.                                | 4608640   |
| Rated switching distance                  | 1 mm  |
| Mounting conditions                       | Flush   |
| Secured operating distance                | ≤ (0.81 × Sn) mm                                    |
| Correction factors                        | St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4 |
| Repeat accuracy                           | ≤ 2 % of full scale                                 |
| Temperature drift                         | ≤ ± 10 %  |
| Hysteresis                                | 3...15 %  |
| Ambient temperature                       | -25...+70 °C  |
| Operating voltage                         | 10...30 VDC   |
| Residual ripple                           | ≤ 10 % U <sub>ss</sub>                              |
| DC rated operational current              | ≤ 100 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>e</sub>            | ≤ 1.8 V   |
| Wire breakage/Reverse polarity protection | yes / Complete                                      |
| Output function                           | 3-wire, NO contact, PNP                             |
| Switching frequency                       | 3 kHz   |
| <b>Design</b>                             | <b>Threaded barrel, M5 x 0.5</b>                    |
| Dimensions                                | 42.7 mm   |
| Housing material                          | Stainless steel, 1.4427 SO                          |
| Active area material                      | PA12  |
| Max. tightening torque housing nut        | 5 Nm  |
| Electrical connection                     | Connectors, M8 x 1                                  |

### 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

|                      |  |
|----------------------|--|
| 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 5 mm  |

## Accessories

| Dimension drawing | Type         | Ident. no. |  |
|-------------------|--------------|------------|--|
|                   | PKGV3M-2/TEL | 6625385    |  |



Connection cable, female M8, straight, 3-pin, stainless steel coupling nut, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see [www.turck.com](http://www.turck.com)



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