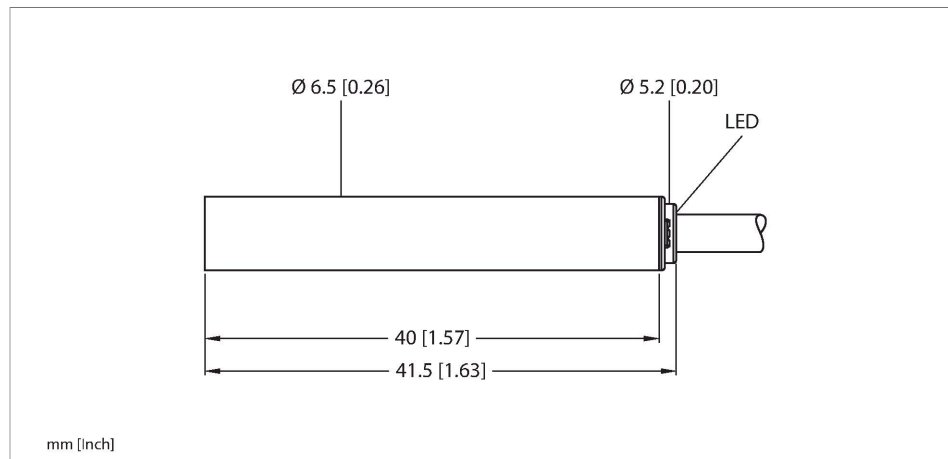


# BI1.5-EH6.5-AP6X

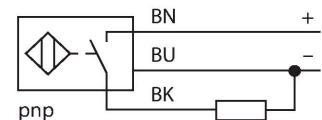
## Inductive Sensor



### Features

- Smooth barrel, Ø 6.5 mm
- Stainless steel, 1.4305 (AISI 303)
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- Cable connection

### Wiring diagram



### Technical data

|   |   |
|---|---|
| Type                                      | BI1.5-EH6.5-AP6X                                    |
| Ident. no.                                | 4612000   |
| Rated switching distance                  | 1.5 mm  |
| Mounting conditions                       | Flush   |
| Secured operating distance                | $\leq (0.81 \times S_n)$ mm                         |
| Correction factors                        | St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4 |
| Repeat accuracy                           | $\leq 2$ % of full scale                            |
| Temperature drift                         | $\leq \pm 10$ %                                     |
| Hysteresis                                | 20 %  |
| Ambient temperature                       | -25...+70 °C  |
| Operating voltage                         | 10...30 VDC   |
| Residual ripple                           | $\leq 10$ % $U_{ss}$                                |
| DC rated operational current              | $\leq 150$ mA                                       |
| No-load current                           | $\leq 15$ mA  |
| Residual current                          | $\leq 0.1$ mA                                       |
| Isolation test voltage                    | $\leq 0.5$ kV                                       |
| Short-circuit protection                  | yes / Cyclic  |
| Voltage drop at $I_o$                     | $\leq 1.8$ V  |
| Wire breakage/Reverse polarity protection | yes / Complete                                      |
| Output function                           | 3-wire, NO contact, PNP                             |
| Switching frequency                       | 3 kHz   |
| Design                                    | Smooth barrel, 6.5 mm                               |
| Dimensions                                | 41.5 mm   |

### Functional principle

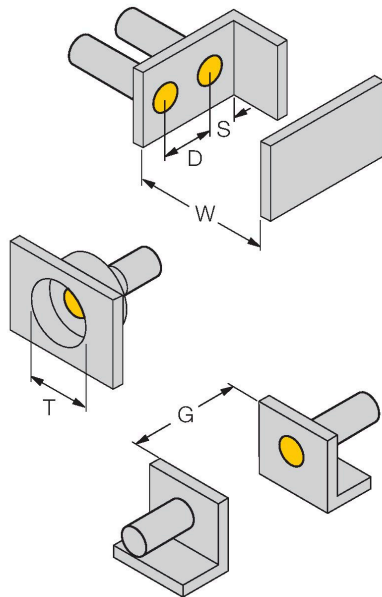
Inductive sensors detect metal objects contactless and wear-free. For this, they use a high-frequency electromagnetic AC field that interacts with the target. Inductive sensors generate this field via an RLC circuit with a ferrite coil.

## Technical data

|                       |  |
|-----------------------|--|
| Housing material      | Stainless steel, 1.4305 (AISI 303)         |
| Active area material  | Plastic, PA6.6                             |
| End cap               | Plastic, PP                                |
| Electrical connection | Cable                                      |
| Cable quality         | Ø 3.3 mm, Gray, LifY-11Y, PUR, 2 m         |
| Core cross-section    | 3 x 0.14 mm <sup>2</sup>                   |
| 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 6.5 mm |