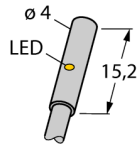
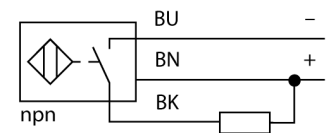


## Inductive sensor BI1-EH04K-AN6X



- Smooth barrel, Ø 4 mm
- Stainless steel, 1.4427 SO
- DC 3-wire, 10...30 VDC
- NO contact, NPN output
- Cable connection

### Wiring Diagram



### 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.

|   |   |
|---|---|
| <b>Type designation</b>                       | BI1-EH04K-AN6X                                      |
| Ident-No.                                     | 4609768   |
| <b>Rated switching distance S<sub>n</sub></b> | 1 mm  |
| Mounting conditions                           | Flush   |
| Secured operating distance                    | ≤ (0,81 x S <sub>n</sub> ) 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  |
| <b>Operating voltage</b>                      | 10...30 VDC   |
| Residual ripple                               | ≤ 10 % U <sub>ss</sub>                              |
| DC rated operational current                  | ≤ 100 mA  |
| No-load current I <sub>0</sub>                | ≤ 15 mA   |
| Residual current                              | ≤ 0.1 mA  |
| Isolation test voltage                        | ≤ 0.5 kV  |
| Short-circuit protection                      | yes/ Cyclic   |
| Voltage drop at I <sub>0</sub>                | ≤ 1.8 V   |
| Wire breakage/Reverse polarity protection     | yes/ Complete                                       |
| Output function                               | 3-wire, NO contact, NPN                             |
| Switching frequency                           | 2 kHz   |
| <b>Design</b>                                 | Smooth barrel, 4 mm                                 |
| Dimensions                                    | 15.2 mm   |
| Housing material                              | Stainless steel, 1.4427 SO                          |
| Active area material                          | Plastic, PA12                                       |
| Electrical connection                         | Cables  |
| Cable quality                                 | 3mm, LifY-11Y, PUR, 2                               |
| Cable 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          |
| Packaging unit                                | 1   |
| <b>Switching state</b>                        | LED, Yellow   |

**Inductive sensor**  
**BI1-EH04K-AN6X**

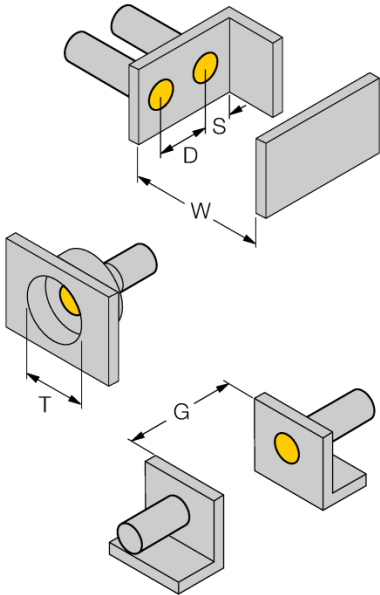
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|            |         |
|------------|---------|
| Distance D | 2 x B   |
| Distance W | 3 x Sn  |
| Distance T | 3 x B   |
| Distance S | 1.5 x B |
| Distance G | 6 x Sn  |

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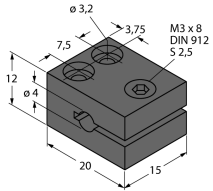
Diameter active area B                      Ø 4 mm

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**Inductive sensor  
BI1-EH04K-AN6X**

**Accessories**

| Type code | Ident-No. | Description   |   |
|-----------|-----------|---|---|
| MBS40     | 69477     | Fixing clamp; material mounting block: Anodized aluminium |  |