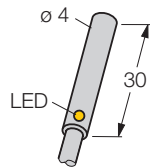


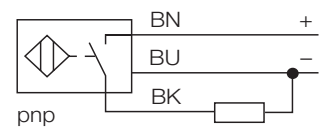
## Inductive sensor

### Bi1-EH04-AP6X



- smooth barrel, 4 mm diameter
- stainless steel 1.4301
- 3-wire DC, 10...30 VDC
- normally open pnp output
- cable connection

#### Wiring diagram



#### Function principles

Inductive proximity switches are designed for wear-free non-contact detection of metal objects. For this they use a high-frequency electro-magnetic AC field that interacts with the target. With inductive sensors, this field is generated by an LC resonant circuit with a ferrite core coil.

|                                                        |                             |
|--------------------------------------------------------|-----------------------------|
| <b>Type</b>                                            | Bi1-EH04-AP6X               |
| Ident-No.                                              | 4609540                     |
| <b>Rated operating distance <math>S_n</math></b>       | 1 mm                        |
| Mounting mode                                          | flush                       |
| Hysteresis (switching distance)                        | 3... 15 %                   |
| Min. repeat accuracy                                   | ≤ 2 %                       |
| Temperature drift                                      | ≤ ± 10 %                    |
| Operating temperature                                  | -25 ...+ 70 °C              |
| <b>Rated operational voltage (DC) <math>U_B</math></b> | 10... 30 VDC                |
| Max. ripple                                            | ≤ 10 % $U_{pp}$             |
| Rated operational current (DC) $I_e$                   | ≤ 100 mA                    |
| No-load current $I_0$                                  | ≤ 15 mA                     |
| Max. OFF-state current                                 | ≤ 0,1 mA                    |
| Max. switching frequency                               | ≤ 3 kHz                     |
| Rated insulation voltage                               | ≤ 0,5 kV                    |
| Output function                                        | 3-wire, normally open, PNP  |
| Short-circuit protection                               | yes, cyclic                 |
| Max. voltage drop at $I_e$                             | ≤ 1,8 V                     |
| Wire breakage / reverse polarity protection            | yes / complete              |
| <b>Housing style</b>                                   | smooth barrel; 4 mm         |
| Dimensions                                             | 30 mm                       |
| Housing material                                       | metal, A2 1.4301 (AISI 304) |
| Active face                                            | plastic, PA12-GF20          |
| Wiring                                                 | cable                       |
| Cable                                                  | Ø 3, LifYY-11Y, PUR, 2 m    |
| Cable cross section                                    | 3 x 0,14 mm <sup>2</sup>    |
| Vibration resistance                                   | 55 Hz (1 mm)                |
| Shock resistance                                       | 30 x g (11 ms)              |
| Degree of protection                                   | IP67                        |
| <b>Switching status indication</b>                     | LED yellow                  |

## Inductive sensor

### Bi1-EH04-AP6X

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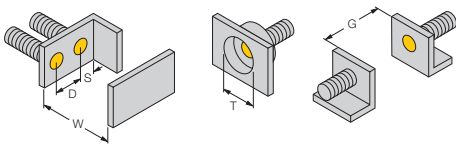
**Mounting instructions**

|       | minimum gap |
|-------|-------------|
| Gap D | 2 x B       |
| Gap W | 3 x Sn      |
| Gap T | 3 x B       |
| Gap S | 1,5 x B     |
| Gap G | 6 x Sn      |

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**Diameter of active face B**

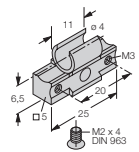
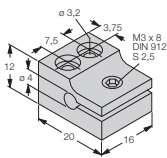
Ø 4 mm



## Inductive sensor

### Bi1-EH04-AP6X

#### Accessories

| Typ   | Ident-No. | Description                                                                    | Dimension drawing                                                                                                                                                       |
|-------|-----------|--------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BS540 | 69475     | fixing clamp; material mounting block: anodized aluminium; clamp sleeve: steel |   |
| MBS40 | 69477     | fixing clamp; material mounting block: anodized aluminium                      |                                                                                                                                                                         |