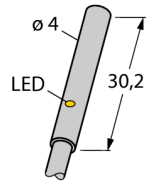


Inductive sensor BI1-EH04-AP6X

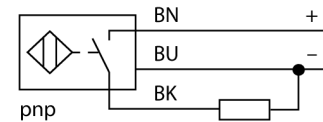
TURCK

Industrial
Automation



- 3-wire DC, 10...30 VDC
- NO contact, PNP 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.

We offer special versions for temperatures of -60 °C up to +250 °C.

| | |
|---|---|
| Type code | BI1-EH04-AP6X |
| Ident no. | 4609540 |
| Rated operating distance Sn | 1 mm |
| Mounting condition | flush |
| Assured sensing range | ≤ (0,81 x Sn) mm |
| Correction factors | St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4 |
| Repeatability | ≤ 2 % of full scale |
| Temperature drift | 10 % |
| Hysteresis | 3...15 % |
| Ambient temperature | -25...+70 °C |
| Operating voltage | 10...30VDC |
| Residual ripple | ≤ 10 % U _{ss} |
| DC rated operational current | ≤ 100 mA |
| No-load current I ₀ | ≤ 15 mA |
| Residual current | ≤ 0.1 mA |
| Rated insulation voltage | ≤ 0.5 kV |
| Short-circuit protection | yes/ cyclic |
| Voltage drop at I _N | ≤ 1.8 V |
| Wire breakage / Reverse polarity protection | yes/ complete |
| Output function | 3-wire, NO contact, PNP |
| Switching frequency | 3 kHz |
| Design | smooth barrel, 4 mm |
| Dimensions | 30 mm |
| Housing material | metal, V4A (1.4404) |
| Material active area | Plastic, PET-GF20 |
| Connection | cable |
| Cable quality | 3 mm, grey, Lif9Y-11Y, PUR, 2 m Suited for E-ChainSystems® acc. to manufacturers declaration H1063M |
| Cable cross section | 3 x 0.14 mm ² |
| 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 |

**Inductive sensor
BI1-EH04-AP6X**

| | |
|------------|---------|
| 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 of the active area B \varnothing 4 mm



Accessories

| Type code | Ident no. | Description | Dimension drawing |
|-----------|-----------|---|-------------------|
| BS 540 | 69475 | Fixing clamp; material mounting block: Anodized aluminium; clamp sleeve: Steel | |
| MBS40 | 69477 | Fixing clamp; material mounting block: Anodized aluminium | |