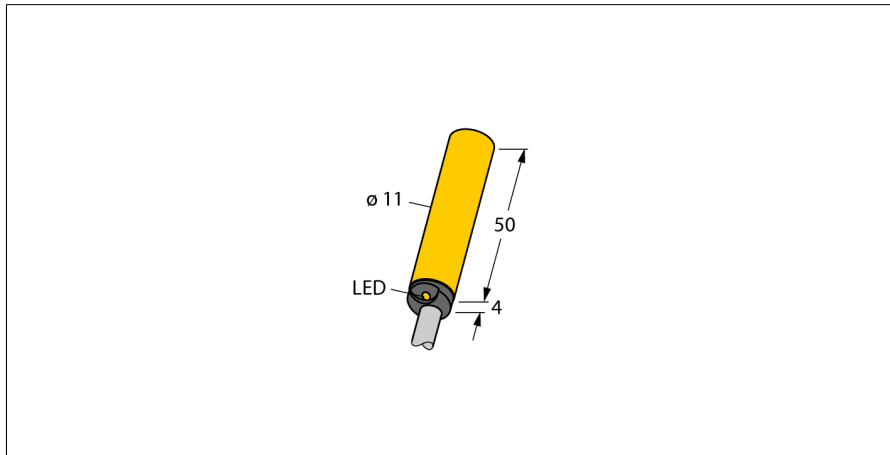
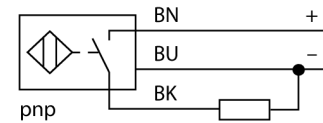


Inductive Sensor BI2-K11-AP6X



- Smooth barrel, Ø 11 mm
- Plastic, PA12-GF30
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- Cable connection

Wiring Diagram



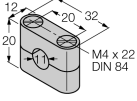
Functional principle

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.

| | |
|---|---|
| Type | BI2-K11-AP6X |
| ID | 46609 |
| General data | |
| Rated switching distance S_n | 2 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 | 3...15 % |
| Electrical data | |
| Operating voltage | 10...30 VDC |
| Residual ripple | $\leq 10\% U_{is}$ |
| DC rated operational current | ≤ 200 mA |
| Residual current | ≤ 0.1 mA |
| Isolation test voltage | ≤ 0.5 kV |
| Short-circuit protection | yes/ Cyclic |
| Voltage drop at I_s | ≤ 1.8 V |
| Wire breakage/Reverse polarity protection | yes/ Complete |
| Output function | 3-wire, NO contact, PNP |
| Switching frequency | 2 kHz |
| Mechanical data | |
| Design | Smooth barrel, 11 mm |
| Dimensions | 54 mm |
| Housing material | Plastic, PA12-GF30 |
| Active area material | Plastic, PA12-GF30 |
| End cap | Plastic, EPTR |
| Electrical connection | Cable |
| Cable quality | Ø 5.2 mm, LifYY, PVC, 2 m |
| Core cross-section | 3 x 0.34 mm ² |

| | |
|--------------------------|--|
| Environmental conditions | |
| Ambient temperature | -25...+70 °C |
| 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 | |
| Included in delivery | LED, Yellow BS11 |

Accessories

| Type code | Ident no. | | Dimension drawing |
|-----------|-----------|--|---|
| BS 11 | 69462 | Fixing clamp; material mounting block: PBT |  |