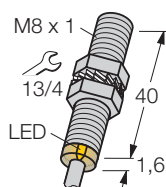


Inductive sensor with extended switching distance Bi2-EG08-AP6X

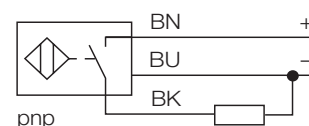
TURCK
works

Industrial
Automation



- threaded barrel, M8 x 1
- stainless steel, 1.4404
- large detection range
- 3-wire DC, 10...30 VDC
- normally open, pnp output
- cable connection

Wiring diagram



Functional principle

Inductive sensors are designed for wear-free and non-contact detection of metal objects. For this purpose 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.

| | |
|---|---|
| Type | Bi2-EG08-AP6X |
| Ident-No. | 4602040 |
| Rated operating distance Sn | 2 mm |
| Mounting condition | flush |
| Assured sensing range | $\leq (0,81 \times S_n) \text{ mm}$ |
| Correction factors | St37 = 1, V2A ~ 0.7, Ms ~ 0.4, Al ~ 0.3 |
| Temperature drift | $\leq \pm 10 \%$ |
| Hysteresis | 3... 15 % |
| Repeatability | $\leq 2 \%$ |
| Ambient temperature | -25...+ 70°C |
| Operating voltage | 10... 30VDC |
| Residual ripple | $\leq 10 \% U_{ss}$ |
| DC rated operational current | $\leq 150 \text{ mA}$ |
| No-load current I_0 | $\leq 15 \text{ mA}$ |
| Residual current | $\leq 0.1 \text{ mA}$ |
| Rated insulation voltage | $\leq 0.5 \text{ kV}$ |
| Short-circuit protection | yes / cyclic |
| Voltage drop at I_e | $\leq 1.8 \text{ V}$ |
| Wire breakage / Reverse polarity protection | yes / complete |
| Output function | 3-wire, normally open, pnp |
| Switching frequency | $\leq 3 \text{ kHz}$ |
| Housing | threaded barrel, M8 x 1 |
| Dimensions | 41.6 x 8 mm |
| Housing material | metal, AISI 316L |
| Material active face | plastic, plastic, PA12-GF20 |
| End cap | plastic, PP |
| Tightening torque of housing nut | 10 Nm |
| Connection | cable |
| Cable quality | Ø 4, LiYY-11Y, PUR, 2 m |
| Cable cross section: | 3 x 0.25mm ² |
| Vibration resistance | 55 Hz (1 mm) |
| Shock resistance | 30g (11 ms) |
| Degree of protection | IP67 |
| Display switch state | LED yellow |