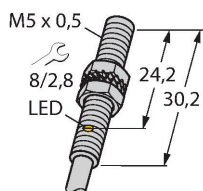


BI1-EG05-AP6X

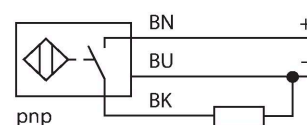
Inductive sensor



Features

- Threaded barrel, M5 x 0.5
- Stainless steel, 1.4427 SO
- 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.

Technical data

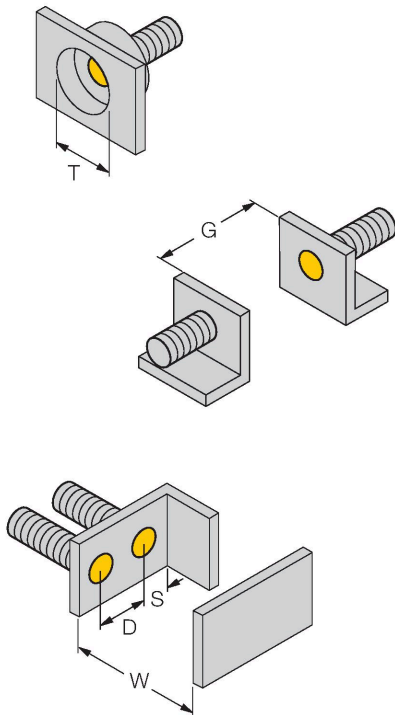
| | |
|---|---|
| Type | BI1-EG05-AP6X |
| Ident. no. | 4609740 |
| Rated switching distance | 1 mm |
| Mounting conditions | Flush |
| Secured operating distance | $\leq (0.81 \times S_n)$ mm |
| Correction factors | St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4 |
| Repeat accuracy | ≤ 2 % of full scale |
| Temperature drift | $\leq \pm 10$ % |
| Hysteresis | 3...15 % |
| Ambient temperature | -25...+70 °C |
| Operating voltage | 10...30 VDC |
| Residual ripple | ≤ 10 % U_{ss} |
| DC rated operational current | ≤ 100 mA |
| No-load current | ≤ 15 mA |
| Residual current | ≤ 0.1 mA |
| Isolation test voltage | ≤ 0.5 kV |
| Short-circuit protection | yes / Cyclic |
| Voltage drop at I_e | ≤ 1.8 V |
| Wire breakage/Reverse polarity protection | yes / Complete |
| Output function | 3-wire, NO contact, PNP |
| Switching frequency | 3 kHz |
| Design | Threaded barrel, M5 x 0.5 |
| Dimensions | 30.2 mm |
| Housing material | Stainless steel, 1.4427 SO |
| Active area material | PA12 |
| Max. tightening torque housing nut | 5 Nm |
| Electrical connection | Cable |

Technical data

| | |
|----------------------|---|
| Cable quality | Ø 3 mm, Gray, Lif9Y-11Y, PUR, 2 m |
| | Suited for E-ChainSystems® acc. to manufacturers declaration H1063M |
| Core 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 |

Mounting instructions

Mounting instructions/Description



| | |
|------------------------|---------|
| 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 active area B | Ø 5 mm |



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