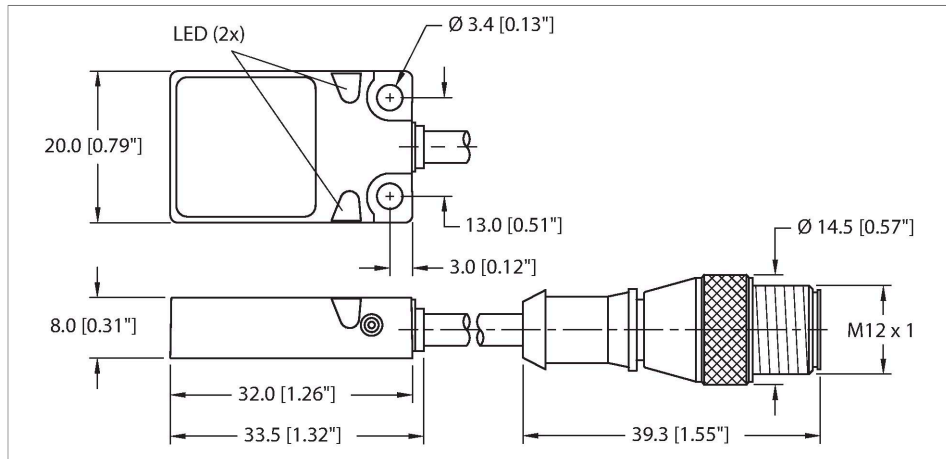


BI7-Q08-VN6X2-0.2-RS4.4T

Inductive Sensor – With Increased Switching Distance



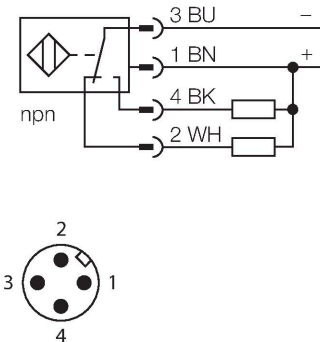
Technical data

| | |
|---|---|
| Type | BI7-Q08-VN6X2-0.2-RS4.4T |
| ID no. | 16009920 |
| Rated switching distance | 7 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 | ≤ 200 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_o | ≤ 1.8 V |
| Wire breakage/Reverse polarity protection | yes / Complete |
| Output function | 4-wire, Complementary contact, NPN |
| Switching frequency | 0.5 kHz |
| Design | Rectangular, Q08 |
| Dimensions | 32 x 20 x 8 mm |

Features

- Rectangular, height 8 mm
- Active face on top
- Metal, Zamak, nickel-plated
- Large sensing range
- DC 4-wire, 10...30 VDC
- Changeover contact, NPN output
- Cable with male end M12 x 1

Wiring diagram



Functional principle

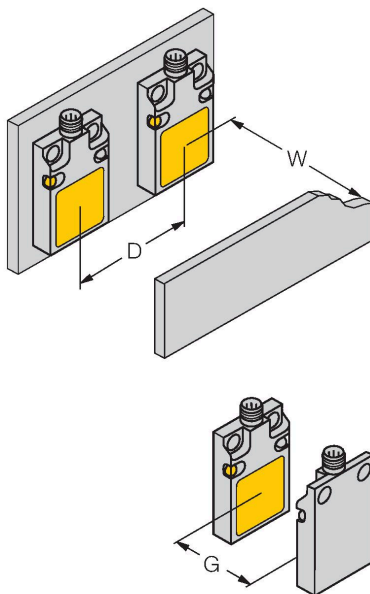
Inductive sensors detect metal objects contactless and wear-free. For this, they use a high-frequency electromagnetic AC field that interacts with the target. Inductive sensors generate this field via an RLC circuit with a ferrite coil.

Technical data

| | |
|-----------------------|--|
| Housing material | Metal, Zamak, Nickel-plated |
| Active area material | Plastic, PP, yellow |
| Material coupling nut | metal, CuZn, nickel-plated |
| Electrical connection | Cable with connector, M12 × 1 |
| Cable quality | Ø 3 mm, Gray, LifY-11Y, PUR, 0.2 m |
| Core cross-section | 4 x 0.14 mm ² |
| Vibration resistance | 55 Hz (1 mm) |
| Shock resistance | 30 g (11 ms) |
| Protection class | IP68 |
| MTTF | 2283 years acc. to SN 29500 (Ed. 99) 40 °C |
| Power-on indication | LED, Green |
| Switching state | LED, Yellow |

Mounting instructions

Mounting instructions/Description



| | |
|---------------------|-------|
| Distance D | 40 mm |
| Distance W | 24 mm |
| Distance G | 48 mm |
| Width active area B | 20 mm |