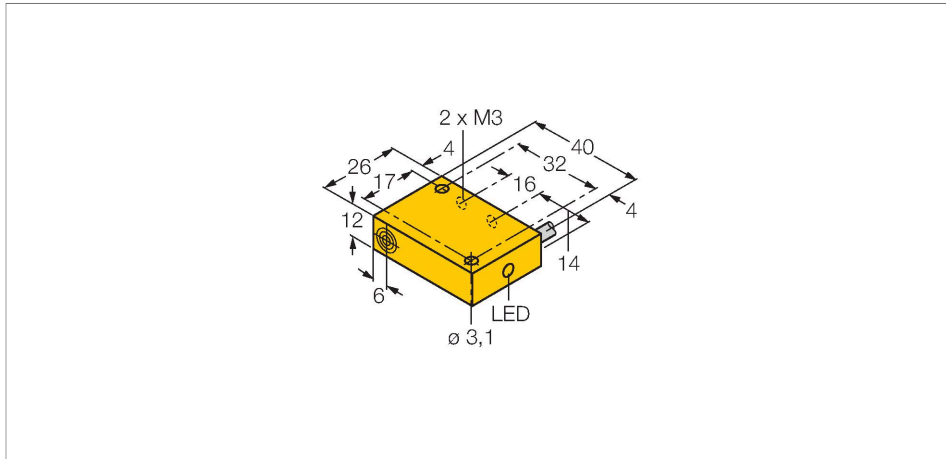


NI4-Q12-AZ31X

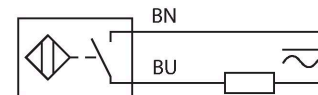
Inductive Sensor



Features

- Rectangular, height 12mm
- Active face, lateral
- Plastic, PA12-GF30
- AC 2-wire, 20...250 VDC
- DC 2-wire, 10...300 VDC
- NO contact
- Cable connection

Wiring diagram



Technical data

| | |
|------------------------------|---|
| Type | NI4-Q12-AZ31X |
| Ident. no. | 13102 |
| Rated switching distance | 4 mm |
| Mounting conditions | Non-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 % |
| Ambient temperature | -25...+70 °C |
| Operating voltage | 20...250 VAC |
| Operating voltage | 10...300 VDC |
| AC rated operational current | ≤ 100 mA |
| DC rated operational current | ≤ 100 mA |
| Frequency | $\geq 50... \leq 60$ Hz |
| Residual current | ≤ 1.7 mA |
| Isolation test voltage | ≤ 1.5 kV |
| Surge current | ≤ 1 A (≤ 10 ms max. 5 Hz) |
| Voltage drop at I_e | ≤ 6 V |
| Output function | 2-wire, NO contact |
| Smallest operating current | ≥ 3 mA |
| Switching frequency | 0.02 kHz |
| Design | Rectangular, Q12 |
| Dimensions | 40 x 26 x 12 mm |

Functional principle

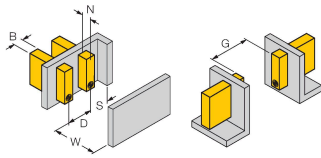
Inductive sensors detect metal objects contactless and wear-free. For this, they use a high-frequency electromagnetic AC field that interacts with the target. Inductive sensors generate this field via an RLC circuit with a ferrite coil.

Technical data

| | |
|-----------------------|--|
| Housing material | Plastic, PA12-GF30 |
| Active area material | PA12-GF30 |
| Electrical connection | Cable |
| Cable quality | Ø 5.2 mm, LifYY, PVC, 2 m |
| Core cross-section | 2 x 0.34 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, Red |

Mounting instructions

Mounting instructions/Description



| | |
|---------------------|---------|
| Distance D | 3 x B |
| Distance W | 3 x Sn |
| Distance S | 1.5 x B |
| Distance G | 6 x Sn |
| Distance N | 2 x Sn |
| Width active area B | 12 mm |