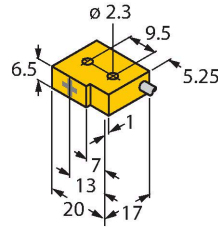


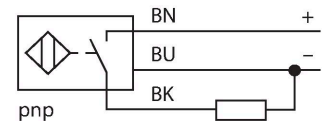
NI2-Q6.5-AP6/S34 Inductive Sensor – Resistant to Magnetic Fields



Features

- Rectangular, height 6.5 mm
- Active face, lateral
- Plastic, PP GR-20
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- Cable connection

Wiring diagram



Technical data

| | |
|--|---|
| Type | NI2-Q6.5-AP6/S34 |
| ID | 1650023 |
| Special version | S34 Corresponds to: Weld-field immune proximity sensors |
| General data | |
| Rated switching distance | 2 mm |
| Mounting conditions | Non-flush |
| Secured operating distance | $\leq (0.81 \times S_n)$ mm |
| Correction factors | St37 = 1; Al = 0.7; stainless steel = 0.75; Ms = 0.45 |
| Repeat accuracy | ≤ 2 % of full scale |
| Temperature drift | $\leq \pm 10$ % |
| Hysteresis | 3...15 % |
| Electrical data | |
| Operating voltage U_B | 10...30 VDC |
| Ripple U_{ss} | ≤ 10 % U_{Bmax} |
| DC rated operating current I_o | ≤ 150 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 break/reverse polarity protection | yes/Complete |
| Output function | 3-wire, NO contact, PNP |
| Switching frequency | 0.03 kHz |

Functional principle

Inductive sensors detect metal objects contactless and wear-free. For this purpose they use a high-frequency electromagnetic AC field that interacts with the target. The sensors hosting a ferrite core coil generate the AC field through an LC resonant circuit. Magnetic field sensors incorporate a special ferrite core making them immune to magnetic AC and DC fields. Hence, they can be applied in welding systems.

Technical data

| Mechanical data | |
|--------------------------|--|
| Design | Rectangular, Q6,5 |
| Dimensions | 20.2 x 17.2 x 6.5 mm |
| Housing material | Plastic, PP GR-20 |
| Active area material | PP GR-20 |
| Electrical connection | Cable |
| Cable quality | Ø 2 mm, Gray, Lif9Y-11Y, PUR, 2 m |
| Core cross-section | 3 x 0.08 mm ² |
| Litz wire | 40 x0.05 mm |
| 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 |

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 | 6.5 mm |
| | | |

NI2-Q6.5-AP6/S34 | 02/21/2025 13-21 | technical changes reserved