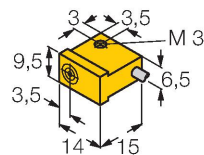


# NI2-Q9.5-AP6/S34

## Inductive Sensor – Resistant to Magnetic Fields



### Features

- Rectangular, height 9.5 mm
- Active face, lateral
- Kunststoff, PP GR-20
- Resistant to magnetic fields (weld resistant), for DC and AC fields
- 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

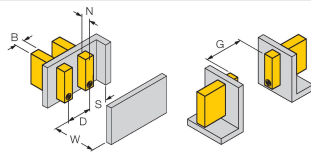
|                                        |                                                       |
|----------------------------------------|-------------------------------------------------------|
| Type                                   | NI2-Q9.5-AP6/S34                                      |
| ID                                     | 1650077                                               |
| Special version                        | S34 Corresponds to:Resistant to magnetic fields       |
| <b>General data</b>                    |                                                       |
| 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                        | $\leq 2$ % of full scale                              |
| Temperature drift                      | $\leq \pm 10$ %                                       |
| Hysteresis                             | 3...15 %                                              |
| <b>Electrical data</b>                 |                                                       |
| Operating voltage $U_B$                | 10...30 VDC                                           |
| Ripple $U_{ss}$                        | $\leq 10$ % $U_{Bmax}$                                |
| DC rated operating current $I_o$       | $\leq 150$ mA                                         |
| No-load current                        | $\leq 15$ mA                                          |
| Residual current                       | $\leq 0.1$ mA                                         |
| Isolation test voltage                 | 0.5 kV                                                |
| Short-circuit protection               | yes/Cyclic                                            |
| Voltage drop at $I_o$                  | $\leq 1.8$ V                                          |
| Wire break/reverse polarity protection | yes/Complete                                          |
| Output function                        | 3-wire, NO contact, PNP                               |
| Switching frequency                    | 1 kHz                                                 |
| <b>Mechanical data</b>                 |                                                       |
| Design                                 | Rectangular, Q9,5                                     |
| Dimensions                             | 20 x 17 x 9.5 mm                                      |

Technical data

|                          |                                            |
|--------------------------|--------------------------------------------|
| 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 <sup>2</sup>                   |
| 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        | 5 x Sn |
| Distance G        | 6 x Sn |
| Distance N        | 2 x Sn |
| Width active area | 9.5 mm |
| B                 |        |