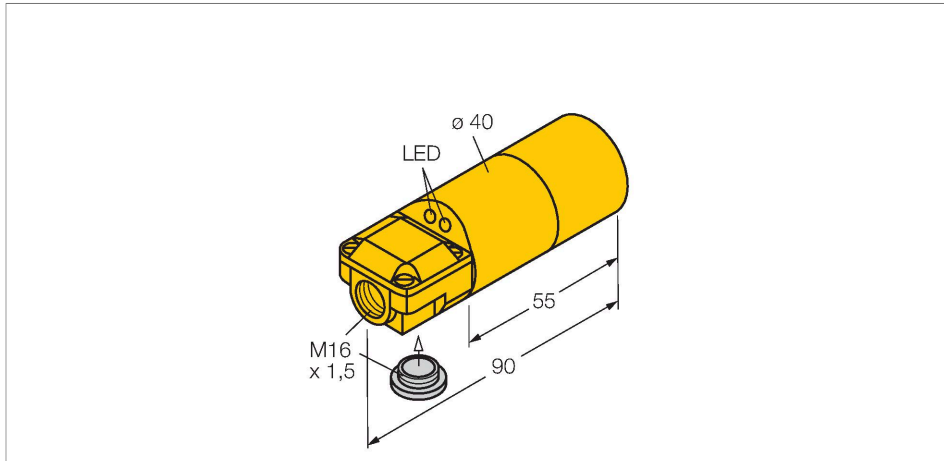


NI30-K40SR-VN4X2

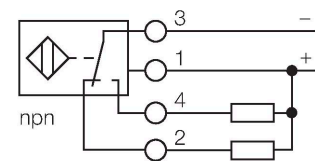
Inductive Sensor



Features

- 2 cable entries (axial, radial)
- Smooth barrel, Ø 40 mm
- Plastic, ABS
- DC 4-wire, 10...65 VDC
- Changeover contact, NPN output
- Terminal chamber

Wiring diagram



Technical data

| | |
|---|---|
| Type | NI30-K40SR-VN4X2 |
| ID | 15758 |
| General data | |
| Rated switching distance | 30 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 | ≤ 2 % of full scale |
| Temperature drift | $\leq \pm 10$ % |
| Hysteresis | 3...15 % |
| Electrical data | |
| Operating voltage | 10...65 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 | 0.1 kHz |

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

| Mechanical data | |
|--------------------------|--|
| Design | Smooth barrel, 40 mm |
| Dimensions | 90 mm |
| Housing material | Plastic, ABS, Yellow |
| Active area material | Plastic, ABS, yellow |
| Electrical connection | Terminal chamber |
| Clamping ability | $\leq 2.5 \text{ mm}^2$ |
| 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 |
| Power-on indication | LED, Green |
| Switching state | LED, Yellow |
| Included in delivery | BS40, cable gland, blanking plug |

Mounting instructions

| Mounting instructions/Description | | |
|-----------------------------------|------------------------|-----------------------------|
| | Distance D | 3 x B |
| | Distance W | 3 x Sn |
| | Distance T | 3 x B |
| | Distance S | 1.5 x B |
| | Distance G | 6 x Sn |
| | Distance N | 40 mm |
| | Diameter active area B | $\varnothing 40 \text{ mm}$ |

Accessories

BS 40

69466

Fixing clamp; material mounting
block: PBT

