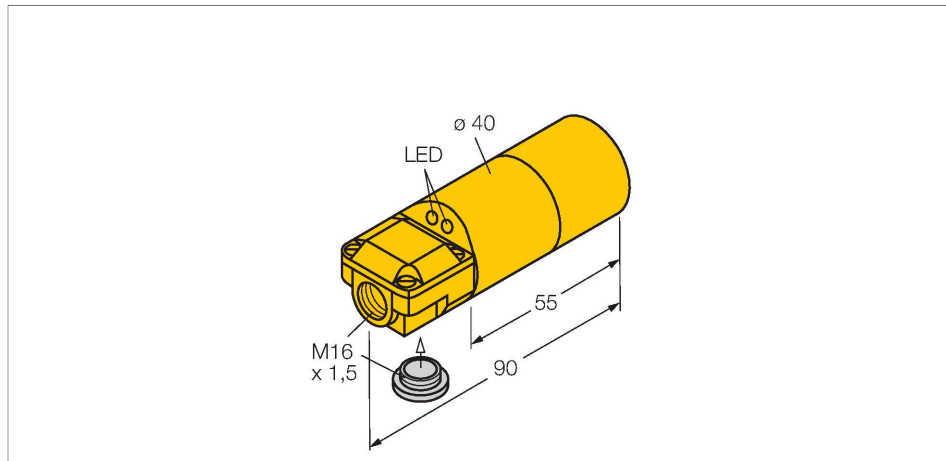


NI20-K40SR-VP4X2

Inductive sensor



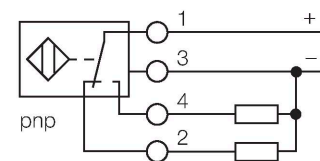
Technical data

| | |
|---|---|
| Type | NI20-K40SR-VP4X2 |
| Ident. no. | 15656 |
| Rated switching distance | 20 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 | 10...65 VDC |
| Residual ripple | $\leq 10\% U_{ss}$ |
| 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_e | ≤ 1.8 V |
| Wire breakage/Reverse polarity protection | yes / Complete |
| Output function | 4-wire, Complementary contact, PNP |
| Switching frequency | 0.1 kHz |
| Design | Smooth barrel, 40 mm |
| Dimensions | 90 mm |
| Housing material | Plastic, ABS, Yellow |

Features

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

Wiring diagram



Functional principle

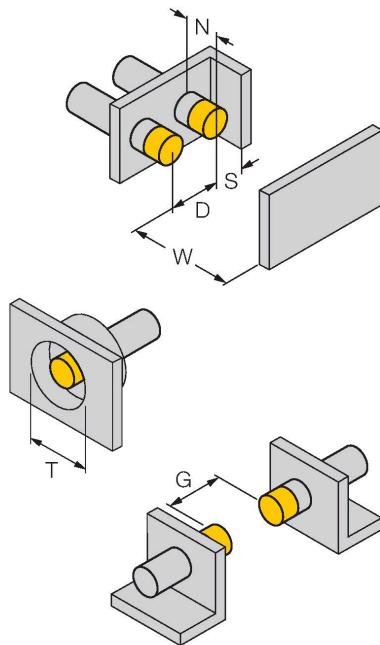
Inductive sensors detect metal objects contactless and wear-free. For this, they use a high-frequency electromagnetic AC field that interacts with the target. Inductive sensors generate this field via an RLC circuit with a ferrite coil.

Technical data

| | |
|-----------------------|--|
| Active area material | Plastic, ABS, yellow |
| Electrical connection | Terminal chamber |
| Clamping ability | $\leq 2.5 \text{ mm}^2$ |
| 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 |
| 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 | 2 x Sn |
| Diameter active area | $\varnothing 40 \text{ mm}$ |
| B | |



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