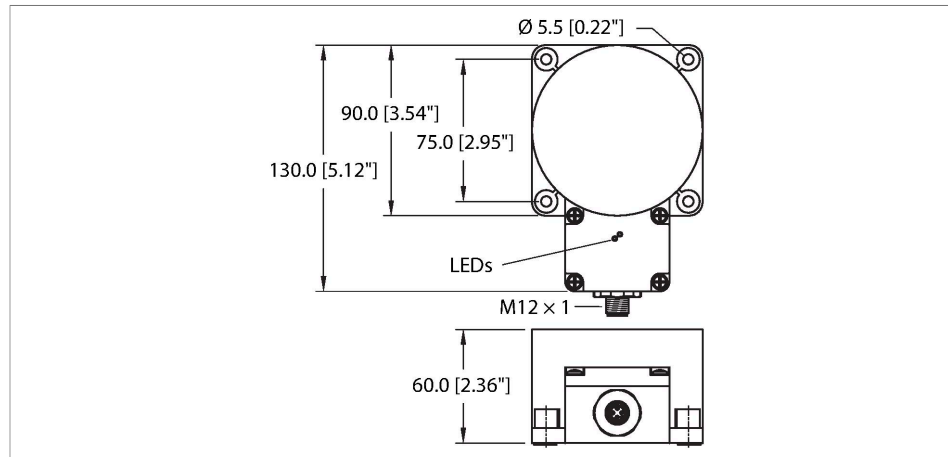


NI100U-K90SR-VP4X2-H1141

Inductive Sensor



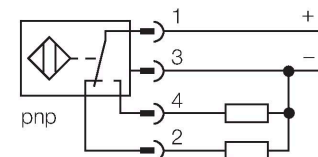
Features

- Rectangular, height 60 mm
- Plastic, PBT-GF30-V0
- Factor 1 for all metals
- Increased switching distance
- Protection class IP68
- Resistant to magnetic fields
- Extended temperature range
- Auto-compensation protects against pre-damping
- One-sided fitting possible
- DC 4-wire, 10...65 VDC
- Changeover contact, PNP output
- M12 x 1 male connector

Technical data

| | |
|---|---|
| Type | NI100U-K90SR-VP4X2-H1141 |
| Ident. no. | 1625844 |
| Rated switching distance | 100 mm |
| Mounting conditions | Non-flush, partially embeddable |
| Secured operating distance | $\leq (0.81 \times S_n)$ mm |
| Repeat accuracy | $\leq 2\%$ of full scale |
| Temperature drift | $\leq \pm 10\%$ |
| | $\leq \pm 15\%, \leq -25\text{ °C} \vee \geq +70\text{ °C}$ |
| Hysteresis | 3...15 % |
| Ambient temperature | -30...+85 °C |
| Operating voltage | 10...65 VDC |
| Residual ripple | $\leq 10\% U_s$ |
| DC rated operational current | $\leq 200\text{ mA}$ |
| No-load current | $\leq 15\text{ mA}$ |
| Residual current | $\leq 0.1\text{ mA}$ |
| Isolation test voltage | $\leq 0.5\text{ kV}$ |
| Short-circuit protection | yes / Cyclic |
| Voltage drop at I_e | $\leq 1.8\text{ V}$ |
| Wire breakage/Reverse polarity protection | yes / Complete |
| Output function | 4-wire, Complementary contact, PNP |
| Insulation class | □ |
| Switching frequency | 0.25 kHz |
| Design | Rectangular, K90SR |
| Dimensions | 130 x 75 x 60 mm |

Wiring diagram



Functional principle

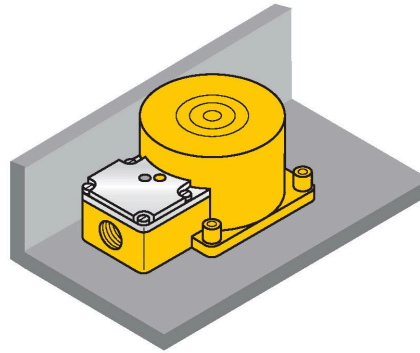
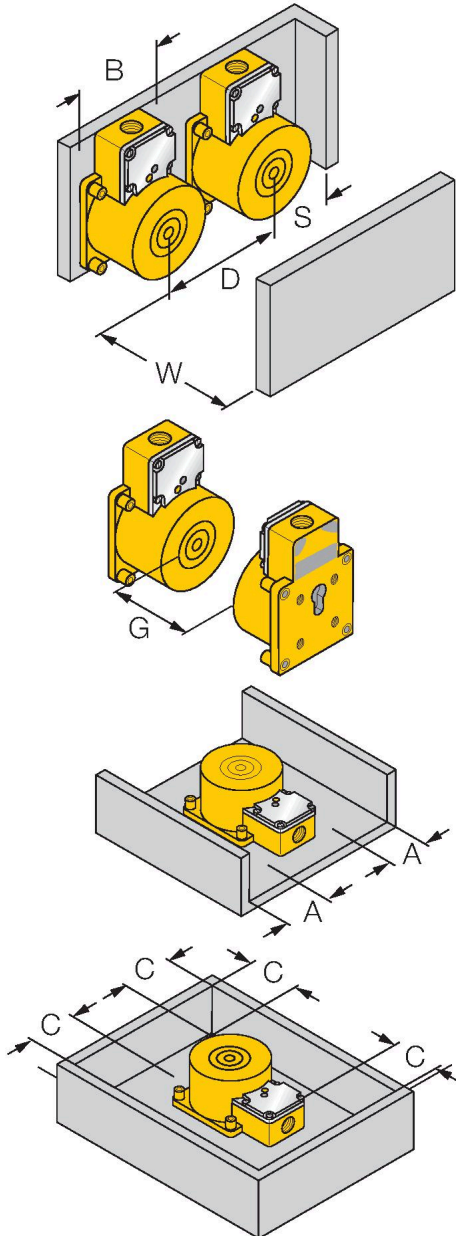
Inductive sensors detect metal objects contactless and wear-free. Due to the patented multi-coil system, *uprox*[®]+ sensors have distinct advantages over conventional sensors. They excel in largest switching distances, maximum flexibility and operational reliability as well as efficient standardization.

Technical data

| | |
|-----------------------|---|
| Housing material | Plastic, PBT-GF30-V0 |
| Active area material | PBT-GF30-V0 |
| Electrical connection | Connector, M12 × 1 |
| Vibration resistance | 55 Hz (1 mm) |
| Shock resistance | 30 g (11 ms) |
| Protection class | IP68 |
| MTTF | 874 years acc. to SN 29500 (Ed. 99) 40 °C |
| Power-on indication | LED, Green |
| Switching state | LED, Yellow |

Mounting instructions

Mounting instructions/Description



Distance D 270 mm

Distance W 300 mm

Distance S 1 x B

Distance G 600 mm

Distance A 100 mm

Distance C 200 mm

Width active area B 90 mm

1-side flush mounting

1-side mounting:

Sr = 70 mm