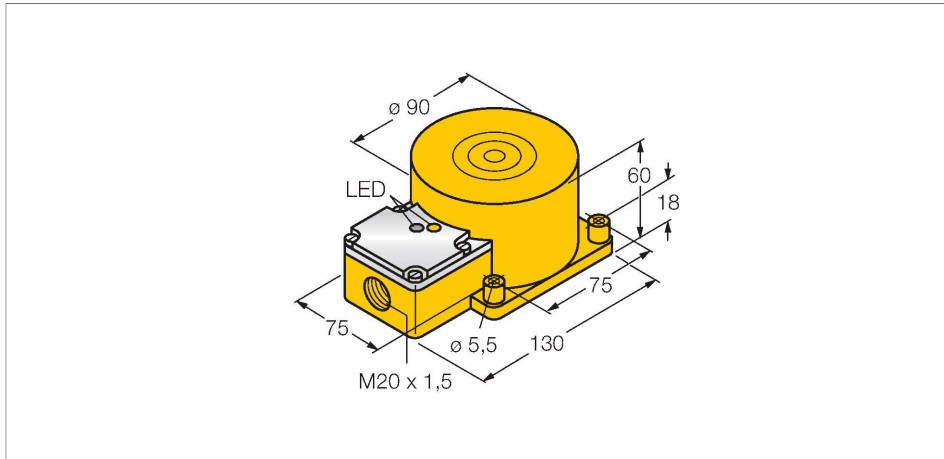


# NI60-K90SR-VP4X2

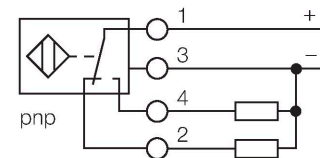
## Inductive sensor



### Features

- Rectangular, height 60 mm
- Plastic, PBT-GF30-V0
- DC 4-wire, 10...65 VDC
- Changeover contact, PNP output
- Terminal chamber

### Wiring diagram



### Technical data

|   |  |
|---|--|
| Type                                      | NI60-K90SR-VP4X2                                       |
| Ident. no.                                | 15640  |
| Rated switching distance                  | 60 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                         | $\leq \pm 10\%$<br>$\leq \pm 20\%, \leq -25\text{ °C}$ |
| Hysteresis                                | 3...15 %   |
| Ambient temperature                       | -40...+70 °C   |
| Operating voltage                         | 10...65 VDC  |
| Residual ripple                           | $\leq 10\% U_{s}$                                      |
| DC rated operational current              | $\leq 200$ mA  |
| No-load current                           | $\leq 15$ mA   |
| Residual current                          | $\leq 0.1$ mA  |
| Isolation test voltage                    | $\leq 0.5$ kV  |
| Short-circuit protection                  | yes / Cyclic   |
| Voltage drop at $I_e$                     | $\leq 1.8$ V   |
| Wire breakage/Reverse polarity protection | yes / Complete   |
| Output function                           | 4-wire, Complementary contact, PNP                     |
| Switching frequency                       | 0.06 kHz   |
| Design                                    | Rectangular, K90SR                                     |
| Dimensions                                | 130 x 75 x 60 mm                                       |

### Functional principle

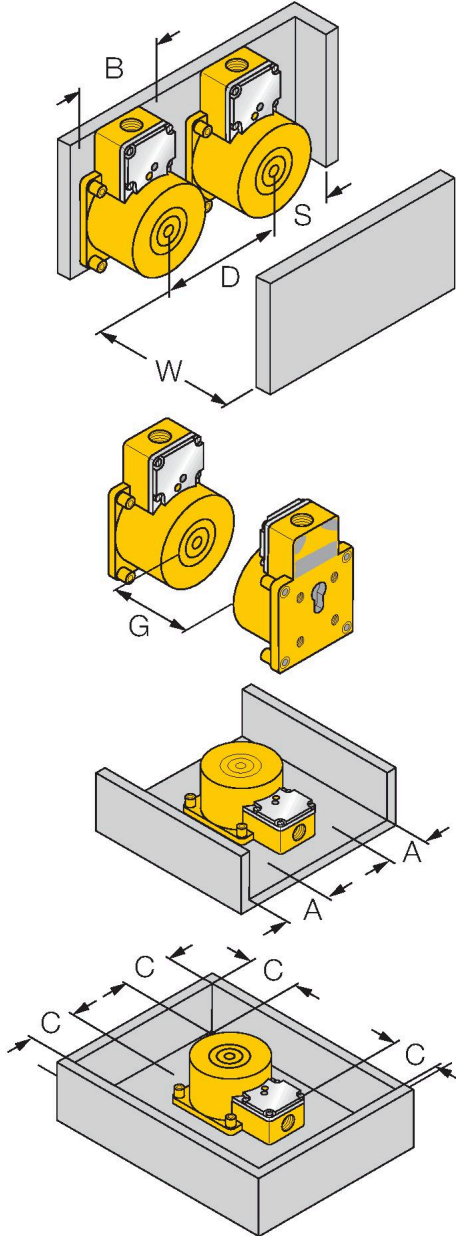
Inductive sensors detect metal objects contactless and wear-free. For this, they use a high-frequency electromagnetic AC field that interacts with the target. Inductive sensors generate this field via an RLC circuit with a ferrite coil.

## Technical data

|                            |  |
|----------------------------|--|
| Housing material           | Plastic, PBT-GF30-V0                       |
| Active area material       | PBT-GF30-V0                                |
| Electrical connection      | Terminal chamber                           |
| Clamping ability           | ≤ 2.5 mm <sup>2</sup>                      |
| 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 |
| <b>Power-on indication</b> | LED, Green                                 |
| Switching state            | LED, Yellow                                |
| Included in delivery       | cable gland                                |

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 A          | 1 x Sn  |
| Distance C          | 2 x Sn  |
| Width active area B | 90 mm   |

NI60-K90SR-VP4X2 | 03/07/2020 07-35 | technical changes reserved



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