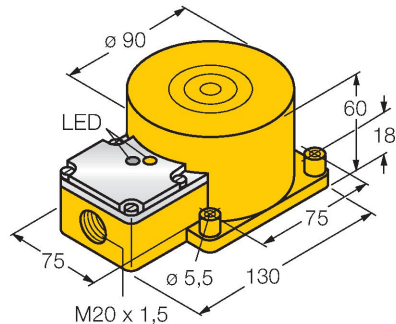


# NI60-K90SR-VN4X2

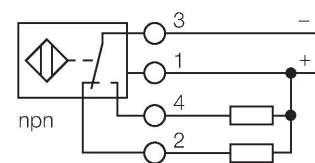
## Inductive Sensor



### Features

- Rectangular, height 60 mm
- Plastic, PBT-GF30-V0
- DC 4-wire, 10...65 VDC
- Changeover contact, NPN 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

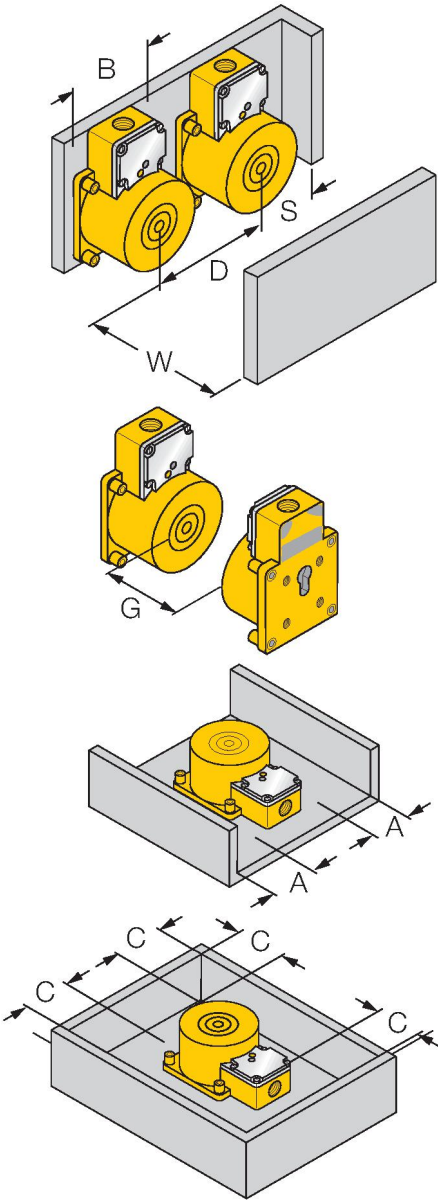
|                                        |                                                     |
|----------------------------------------|-----------------------------------------------------|
| Type                                   | NI60-K90SR-VN4X2                                    |
| ID                                     | 15740                                               |
| General data                           |                                                     |
| 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                      | $\leq \pm 10$ %                                     |
| Hysteresis                             | 3...15 %                                            |
| Electrical data                        |                                                     |
| Operating voltage $U_B$                | 10...65 VDC                                         |
| Ripple $U_{ss}$                        | $\leq 10$ % $U_{Bmax}$                              |
| DC rated operating current $I_o$       | $\leq 200$ 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                        | 4-wire, Complementary contact, NPN                  |
| Switching frequency                    | 0.06 kHz                                            |
| Mechanical data                        |                                                     |
| Design                                 | Rectangular, K90SR                                  |
| Dimensions                             | 130 x 75 x 60 mm                                    |
| Housing material                       | Plastic, PBT-GF30-V0                                |

Technical data

|                          |                                            |
|--------------------------|--------------------------------------------|
| Active area material     | PBT-GF30-V0                                |
| Electrical connection    | Terminal chamber                           |
| Clamping ability         | ≤ 2.5 mm²                                  |
| 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                                |

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   |