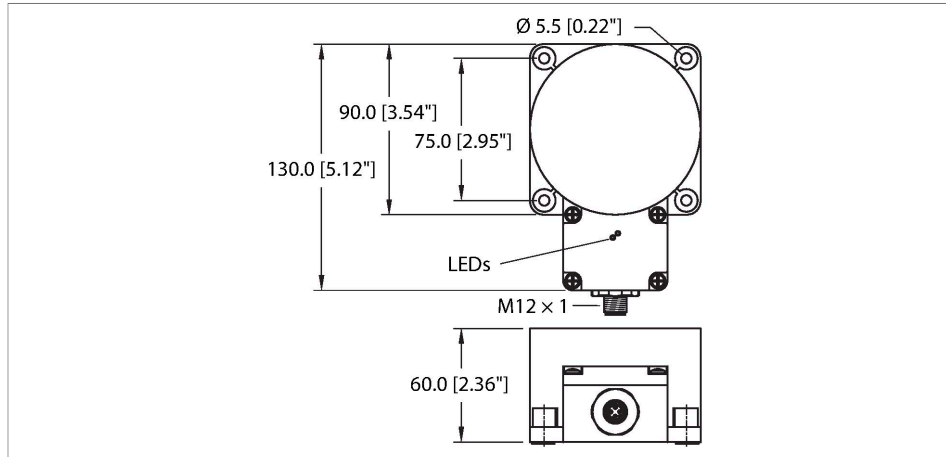


# NI60-K90SR-VP4X2-H1141

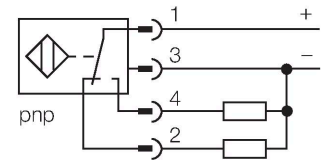
## Inductive Sensor



### Features

- Rectangular, height 60 mm
- Plastic, PBT-GF30-V0
- DC 4-wire, 10...65 VDC
- Changeover contact, PNP output
- M12 x 1 male connector

### Wiring diagram



### Technical data

|   |   |
|---|---|
| Type                                      | NI60-K90SR-VP4X2-H1141                              |
| ID  | 1564093   |
| <b>General data</b>                       |   |
| 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 %  |
| <b>Electrical data</b>                    |   |
| Operating voltage                         | 10...65 VDC   |
| Residual ripple                           | $\leq 10$ % $U_{ss}$                                |
| DC rated operational current              | $\leq 200$ mA                                       |
| No-load current                           | 15 mA   |
| Residual current                          | $\leq 0.1$ mA                                       |
| Isolation test voltage                    | $\leq 0.5$ kV                                       |
| Short-circuit protection                  | yes / Cyclic  |
| Voltage drop at $I_o$                     | $\leq 1.8$ V  |
| Wire breakage/Reverse polarity protection | yes / Complete                                      |
| Output function                           | 4-wire, Complementary contact, PNP                  |
| Switching frequency                       | 0.06 kHz  |

### Functional principle

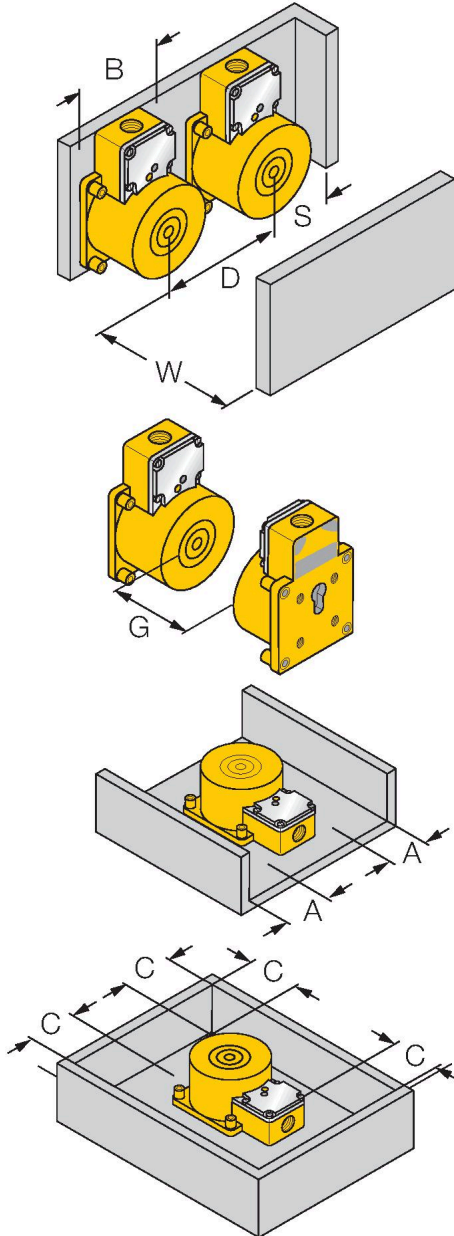
Inductive sensors detect metal objects contactless and wear-free. For this, they use a high-frequency electromagnetic AC field that interacts with the target. Inductive sensors generate this field via an RLC circuit with a ferrite coil.

## Technical data

| Mechanical data          |  |
|--------------------------|--|
| Design                   | Rectangular, K90SR                         |
| Dimensions               | 130 x 75 x 60 mm                           |
| Housing material         | Plastic, PBT-GF30-V0                       |
| Active area material     | PBT-GF30-V0                                |
| Electrical connection    | Connector, M12 × 1                         |
| 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          | $3 \times B$   |
| Distance W          | $3 \times S_n$ |
| Distance S          | $1.5 \times B$ |
| Distance G          | $6 \times S_n$ |
| Distance A          | $1 \times S_n$ |
| Distance C          | $2 \times S_n$ |
| Width active area B | 90 mm          |