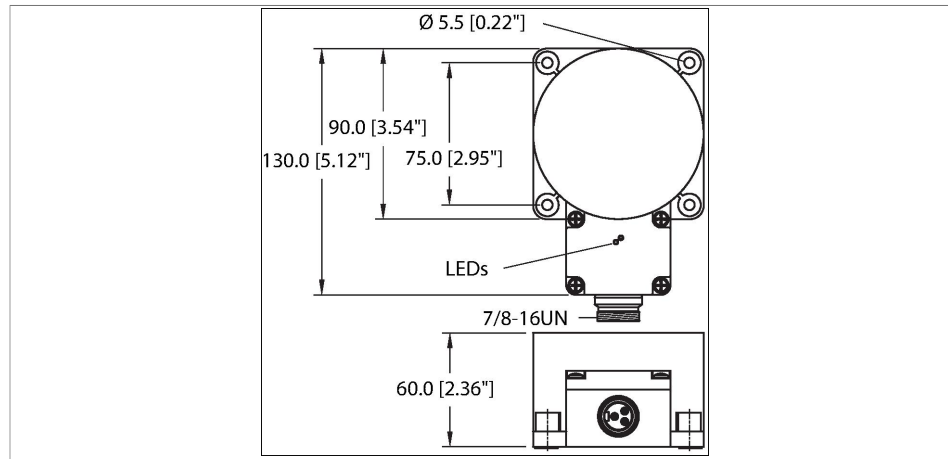


# NI60-K90SR-VP4X2-B1141

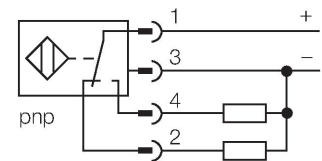
## Inductive Sensor



### Features

- Rectangular, height 60 mm
- Plastic, PBT-GF30-V0
- DC 4-wire, 10...65 VDC
- Changeover contact, PNP output
- 7/8" male connector

### Wiring diagram



### Technical data

|                                        |                                                     |
|----------------------------------------|-----------------------------------------------------|
| Type                                   | NI60-K90SR-VP4X2-B1141                              |
| ID                                     | 1564092                                             |
| <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                            |
| Hysteresis                             | 3...15 %                                            |
| <b>Electrical data</b>                 |                                                     |
| 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, PNP                  |
| Switching frequency                    | 0.06 kHz                                            |
| <b>Mechanical data</b>                 |                                                     |
| Design                                 | Rectangular, K90SR                                  |

### Functional principle

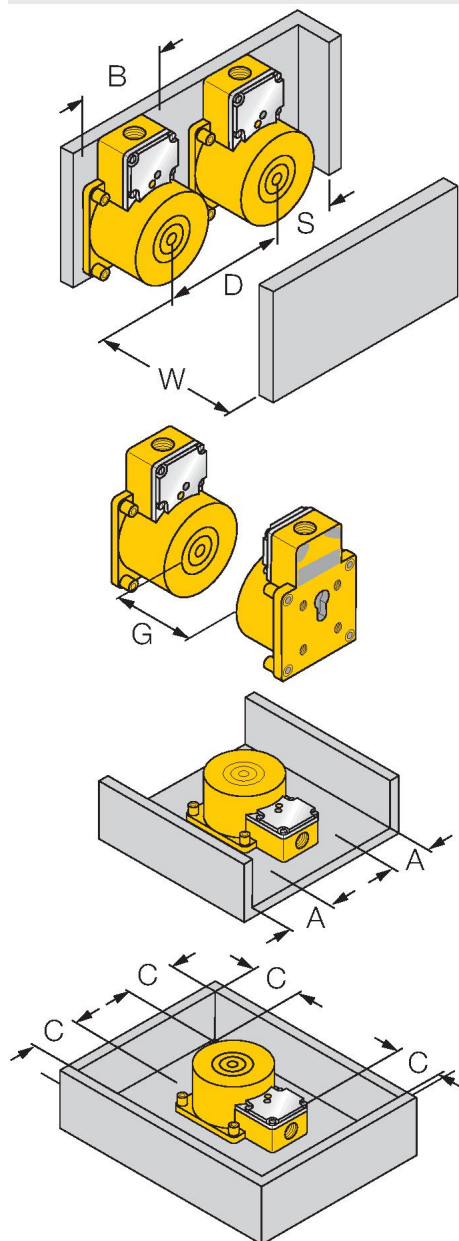
Inductive sensors detect metal objects contactless and wear-free. For this, they use a high-frequency electromagnetic AC field that interacts with the target. Inductive sensors generate this field via an RLC circuit with a ferrite coil.

## Technical data

|                          |                                            |
|--------------------------|--------------------------------------------|
| Dimensions               | 130 x 75 x 60 mm                           |
| Housing material         | Plastic, PBT-GF30-V0                       |
| Active area material     | PBT-GF30-V0                                |
| Electrical connection    | Connector, 7/8"                            |
| 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          |