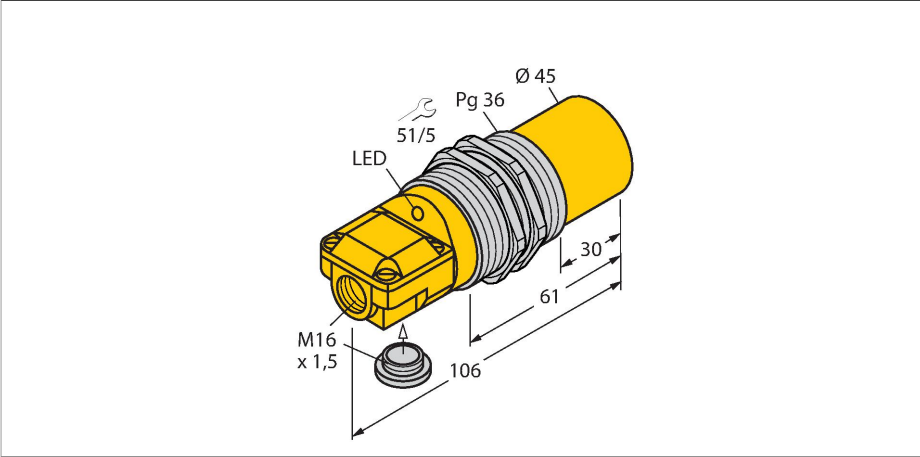


# NI40-G47SR-VP4X2

## Inductive Sensor



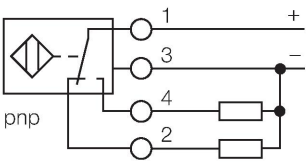
### Technical data

|                                        |                                                     |
|----------------------------------------|-----------------------------------------------------|
| Type                                   | NI40-G47SR-VP4X2                                    |
| ID                                     | 15650                                               |
| General data                           |                                                     |
| Rated switching distance               | 40 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, PNP                  |
| Switching frequency                    | 0.1 kHz                                             |
| Mechanical data                        |                                                     |
| Design                                 | Threaded barrel, G47                                |
| Dimensions                             | 106 mm                                              |
| Housing material                       | Metal, CuZn, Chrome-plated                          |

### Features

- 2 cable entries (axial, radial)
- Threaded barrel, Pg36
- Chrome-plated brass
- DC 4-wire, 10...65 VDC
- Changeover contact, PNP output
- Terminal chamber

### Wiring diagram



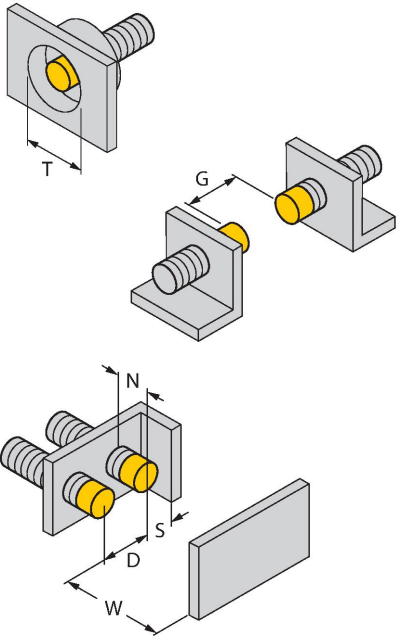
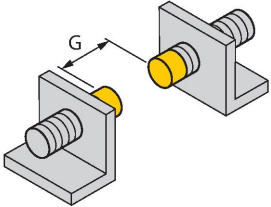
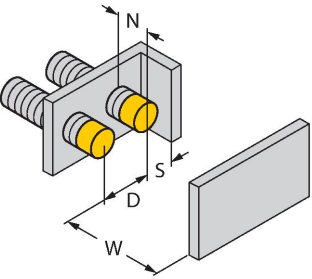
### Functional principle

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

|                                       |                                            |
|---------------------------------------|--------------------------------------------|
| Active area material                  | Plastic, PA12-GF30                         |
| Max. tightening torque of housing nut | 90 Nm                                      |
| 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                                |
| Included in delivery                  | cable gland, blanking plug                 |

Mounting instructions

| Mounting instructions/Description                                                   |                        |         |
|-------------------------------------------------------------------------------------|------------------------|---------|
|  | Distance D             | 3 x B   |
|                                                                                     | Distance W             | 3 x Sn  |
|                                                                                     | Distance T             | 3 x B   |
|  | Distance S             | 1.5 x B |
|                                                                                     | Distance G             | 6 x Sn  |
|                                                                                     | Distance N             | 40 mm   |
|  | Diameter active area B | Ø 47 mm |

## Accessories

MW47

69452

Mounting bracket; material: Steel  
plate, galvanized

