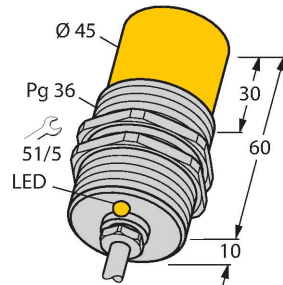


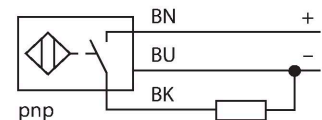
# NI25-G47-AP4X Inductive Sensor



## Features

- Threaded barrel, PG36
- Chrome-plated brass
- DC 3-wire, 10...65 VDC
- NO contact, PNP output
- Cable connection

## Wiring diagram



## Technical data

|                                           |                                                     |
|-------------------------------------------|-----------------------------------------------------|
| Type                                      | NI25-G47-AP4X                                       |
| Ident. no.                                | 15646                                               |
| Rated switching distance                  | 25 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 %                                            |
| Ambient temperature                       | -25...+70 °C                                        |
| Operating voltage                         | 10...65 VDC                                         |
| Residual ripple                           | $\leq 10$ % $U_{ss}$                                |
| 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 $I_o$                     | $\leq 1.8$ V                                        |
| Wire breakage/Reverse polarity protection | yes / Complete                                      |
| Output function                           | 3-wire, NO contact, PNP                             |
| Switching frequency                       | 0.1 kHz                                             |
| Design                                    | Threaded barrel, G47                                |
| Dimensions                                | 70 mm                                               |

## Functional principle

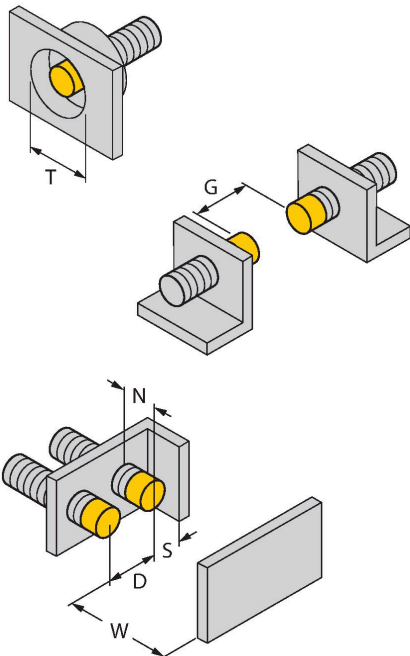
Inductive sensors detect metal objects contactless and wear-free. For this, they use a high-frequency electromagnetic AC field that interacts with the target. Inductive sensors generate this field via an RLC circuit with a ferrite coil.

## Technical data

|                                       |                                            |
|---------------------------------------|--------------------------------------------|
| Housing material                      | Metal, CuZn, Chrome-plated                 |
| Active area material                  | Plastic, PA12-GF30                         |
| End cap                               | Plastic, PA66-GF25                         |
| Max. tightening torque of housing nut | 90 Nm                                      |
| Electrical connection                 | Cable                                      |
| Cable quality                         | Ø 6.3 mm, LiÖlflex, Ölflex®, 2 m           |
| Core cross-section                    | 3 x 0.5 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 |

## 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

