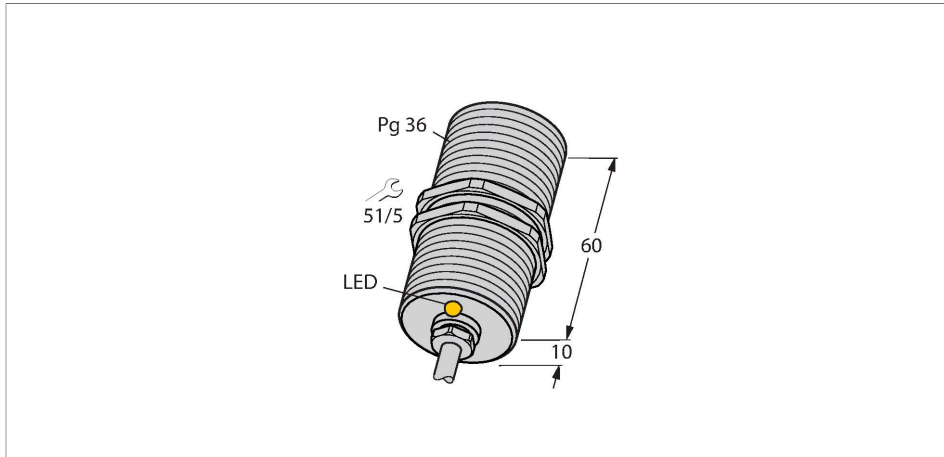


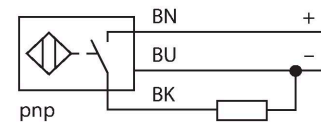
# BI20-G47-AP4X Inductive sensor



## Features

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

## Wiring diagram



## Technical data

|   |   |
|---|---|
| <b>Type</b>                               | BI20-G47-AP4X                                       |
| Ident. no.                                | 15645   |
| Rated switching distance                  | 20 mm   |
| Mounting conditions                       | Flush   |
| Secured operating distance                | ≤ (0,81 x Sn) mm                                    |
| Correction factors                        | St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4 |
| Repeat accuracy                           | ≤ 2 % of full scale                                 |
| Temperature drift                         | ≤ ± 10 %  |
| Hysteresis                                | 3...15 %  |
| Ambient temperature                       | -25...+70 °C  |
| Operating voltage                         | 10...65 VDC   |
| Residual ripple                           | ≤ 10 % U <sub>ss</sub>                              |
| DC rated operational current              | ≤ 200 mA  |
| No-load current                           | ≤ 15 mA   |
| Residual current                          | ≤ 0.1 mA  |
| Isolation test voltage                    | ≤ 0.5 kV  |
| Short-circuit protection                  | yes / Cyclic  |
| Voltage drop at                           | ≤ 1.8 V   |
| Wire breakage/Reverse polarity protection | yes / Complete                                      |
| Output function                           | 3-wire, NO contact, PNP                             |
| Switching frequency                       | 0.1 kHz   |
| <b>Design</b>                             | Threaded barrel,G47                                 |
| Dimensions                                | 70 mm   |
| Housing material                          | Metal, CuZn, Chrome-plated                          |

## Functional principle

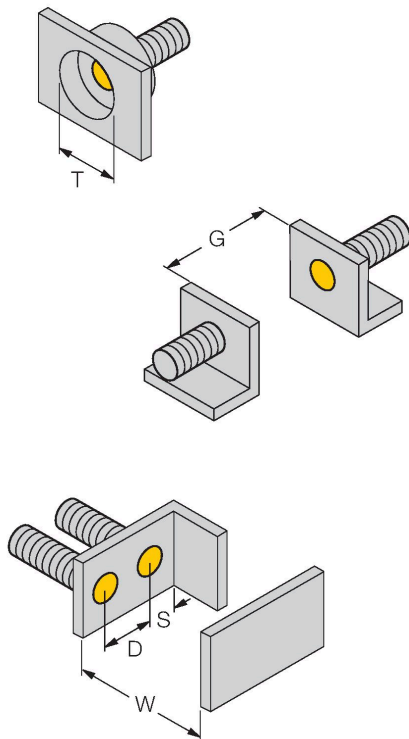
Inductive sensors detect metal objects contactless and wear-free. For this, they use a high-frequency electromagnetic AC field that interacts with the target. Inductive sensors generate this field via an RLC circuit with a ferrite coil.

## Technical data

|                                    |  |
|------------------------------------|--|
| Active area material               | Plastic, PA12-GF30                         |
| End cap                            | Plastic, PA66-GF25                         |
| Max. tightening torque housing nut | 90 Nm                                      |
| Electrical connection              | Cables                                     |
| 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 |
| Switching state                    | LED, Yellow                                |

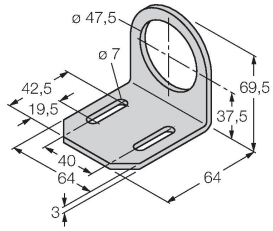
## Mounting instructions

### Mounting instructions/Description



|                           |         |
|---------------------------|---------|
| Distance D                | 2 x B   |
| Distance T                | 3 x B   |
| Diameter active area<br>B | Ø 47 mm |

## Accessories

**MW47****69452**

Mounting bracket; material: Steel plate,  
galvanized