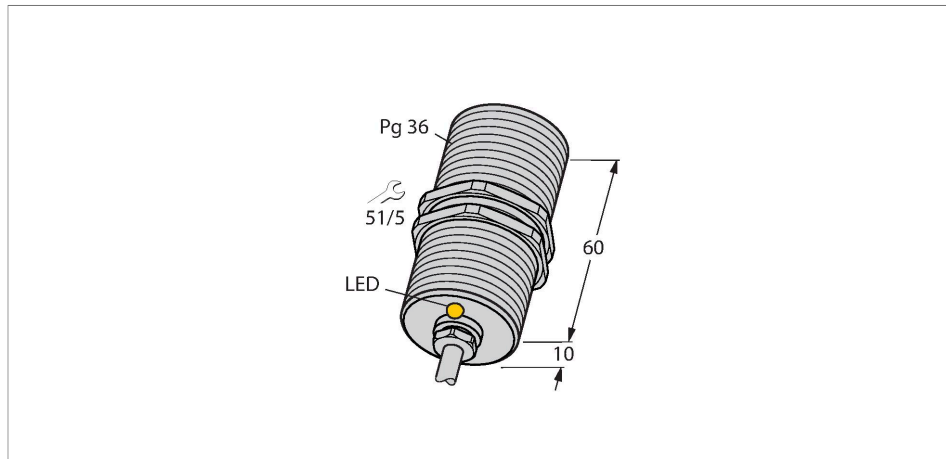


# BI20-G47-RZ3X

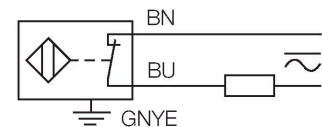
## Inductive sensor



### Features

- Threaded barrel, PG36
- Chrome-plated brass
- AC 2-wire, 20...250 VDC
- DC 2-wire, 10...300 VDC
- NC contact
- Cable connection

### Wiring diagram

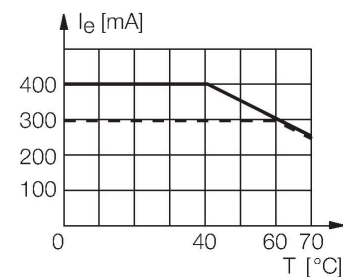


### Technical data

<b>Type</b>	BI20-G47-RZ3X
Ident. no.	13187
Rated switching distance	20 mm
Mounting conditions	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
<b>Operating voltage</b>	20...250 VAC
Operating voltage	10...300 VDC
AC rated operational current	$\leq 400$ mA
DC rated operational current	$\leq 300$ mA
Frequency	$\geq 50 \dots \leq 60$ Hz
Residual current	$\leq 1.7$ mA
Isolation test voltage	$\leq 1.5$ kV
Surge current	$\leq 8$ A ( $\leq 10$ ms max. 5 Hz)
Voltage drop at	$\leq 6$ V
Output function	2-wire, NC contact
Smallest operating current	$\geq 3$ mA
Switching frequency	0.02 kHz
<b>Design</b>	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.

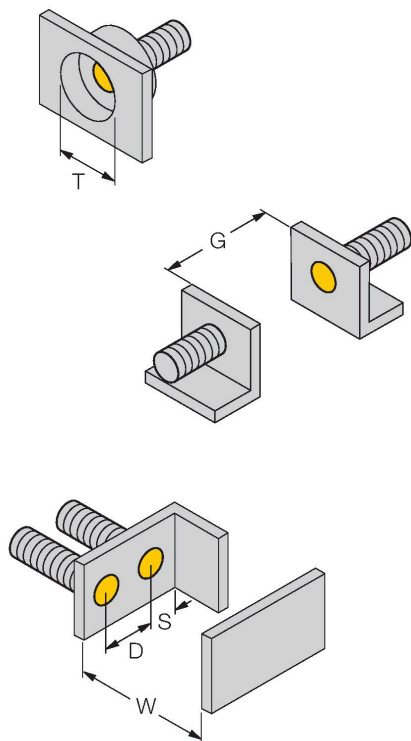


## Technical data

Housing material	Metal, CuZn, Chrome-plated
Active area material	Plastic, PA12-GF30
End cap	Plastic, PA66-GF25
Max. tightening torque housing nut	90 Nm
Electrical connection	Cable
Cable quality	Ø 5.2 mm, LifYY, PVC, 2 m
Core cross-section	3 x 0.75 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, Red

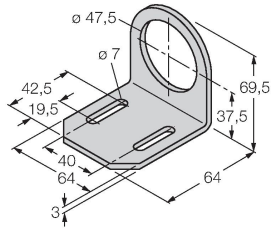
## Mounting instructions

### Mounting instructions/Description



Distance D	2 x B
Distance T	3 x B
Diameter active area B	Ø 47 mm

## Accessories

**MW47****69452**Mounting bracket; material: Steel plate,  
galvanized



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