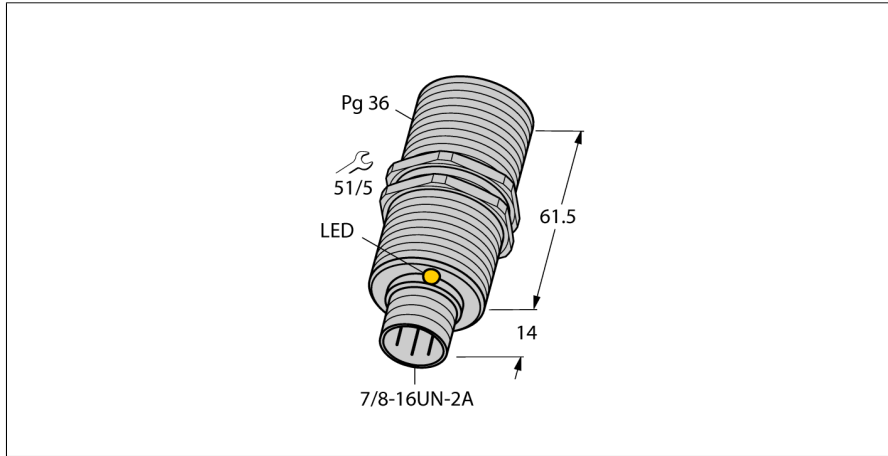


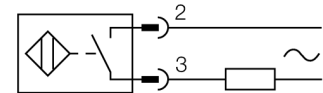
# Inductive sensor

## BI20-G47-AZ3X-B2131



- Threaded barrel, PG36
- Chrome-plated brass
- AC 2-wire, 20...250 VAC
- DC 2-wire, 10...300 VDC
- NO contact
- 7/8" connector

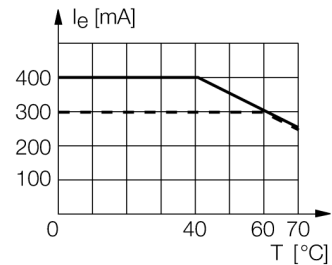
### Wiring Diagram



<b>Type designation</b>	BI20-G47-AZ3X-B2131
Ident-No.	43759
<b>Rated switching distance <math>S_n</math></b>	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...250VAC
Operating voltage	10...300 VDC
AC rated operational current	$\leq 400$ mA
DC rated operational current	$\leq 300$ mA
Frequency	$\geq 50... \leq 60$ 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 $I_n$	$\leq 6$ V
Output function	2-wire, NO contact
Smallest operating current $I_m$	$\geq 3$ mA
Switching frequency	0.02 kHz
<b>Design</b>	Threaded barrel, G47
Dimensions	75.5 mm
Housing material	Metal, CuZn, Chrome-plated
Active area material	Plastic, PA12-GF30
Max. tightening torque housing nut	90 Nm
Electrical connection	Connector, 7/8"
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
<b>Switching state</b>	LED, Red

### 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.



# Inductive sensor BI20-G47-AZ3X-B2131

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Distance D	2 x B
Distance W	3 x Sn
Distance T	3 x B
Distance S	1.5 x B
Distance G	6 x Sn

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Diameter active area B                       $\varnothing$  47 mm



**Inductive sensor  
BI20-G47-AZ3X-B2131**

**Accessories**

Type code	Ident-No.	Description	
MB-47	69452	Mounting bracket; material: Steel plate, zinc-plated	