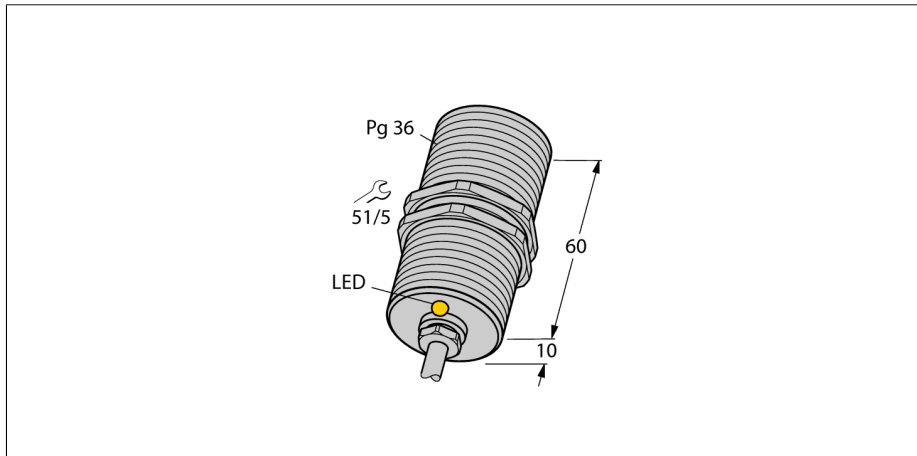


Inductive sensor BI20-G47-AP4X

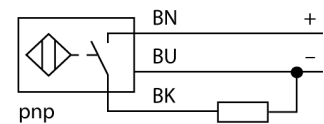
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- Threaded barrel, PG36
- Chrome-plated brass
- DC 3-wire, 10...65 VDC
- NO contact, PNP output
- Cable connection

Wiring diagram



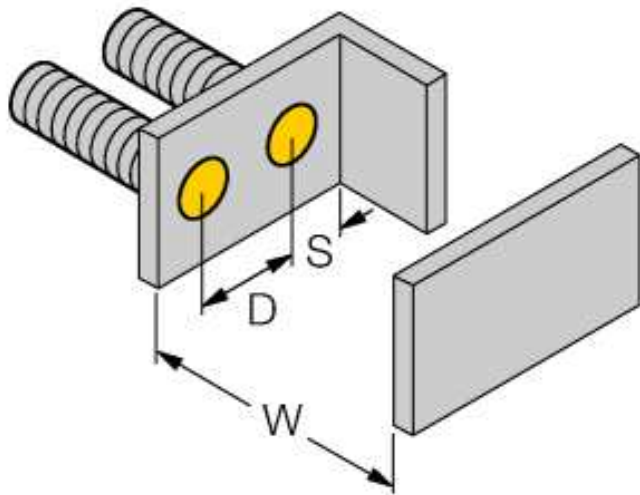
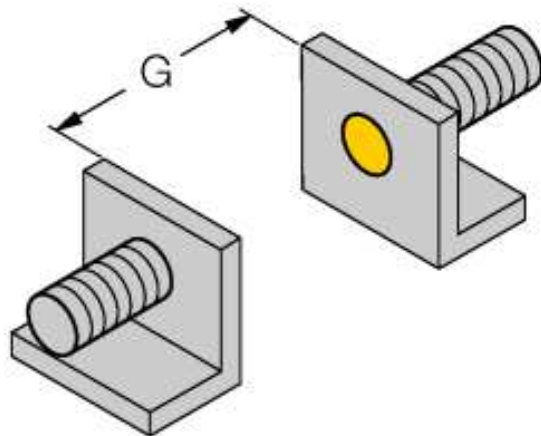
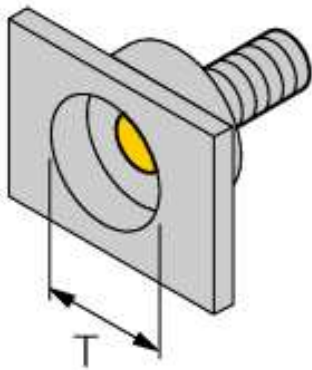
Functional principle

Inductive sensors detect metal objects contactless and wear-free. For this purpose they use a high-frequency electromagnetic AC field that interacts with the target. The sensors hosting a ferrite core coil generate the AC field through an LC resonant circuit.

Type code	BI20-G47-AP4X
Ident no.	15645
Rated operating distance Sn	20 mm
Mounting condition	flush
Assured sensing range	$\leq (0,81 \times S_n)$ mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeatability	$\leq 2\%$ of full scale
Temperaturdrift	10 %
Hysteresis	3...15 %
Ambient temperature	-25...+70 °C
Operating voltage	10...65VDC
Residual ripple	$\leq 10\% U_{ss}$
DC rated operational current	≤ 200 mA
No-load current I_0	≤ 15 mA
Residual current	≤ 0.1 mA
Rated insulation voltage	≤ 0.5 kV
Short-circuit protection	yes/ cyclic
Voltage drop at I_0	≤ 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
Housing material	Metal, CuZn, chrome-plated
Material active face	Plastic, PA
End cap	Plastic, PA66-GF25
Max. tightening torque housing nut	90 Nm
Connection	cable
Cable quality	6.3 mm, LiÖflex, Ölflex®, 2 m
Cable cross section	3 x 0.5 mm ²
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	● yellow

**Inductive sensor
BI20-G47-AP4X**

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
<hr/>	
Diameter of the active area B	Ø 47 mm



Inductive sensor BI20-G47-AP4X

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Accessories

Type code	Ident no.	Description	Dimension drawing
MW 47	69452	Mounting bracket; material: Steel plate, zinc-plated	