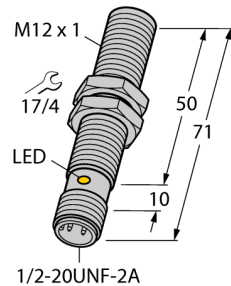


Inductive sensor

BI4-G12-ADZ32X-B3131

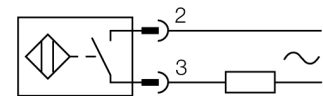
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- Threaded barrel, M12 x 1
- Chrome-plated brass
- AC 2-wire, 20...250 VAC
- DC 2-wire, 10...300 VDC
- NO contact
- 1/2" male connector

Wiring Diagram



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.

Type designation	BI4-G12-ADZ32X-B3131
Ident-No.	4205301
Ident-No (TUSA)	T4205031
Rated switching distance Sn	4 mm
Mounting conditions	flush
Assured switching distance	$\leq (0,81 \times S_n) \text{ mm}$
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeatability	$\leq 2 \% \text{ of full scale}$
Temperature drift	$\leq \pm 10 \%$
Hysteresis	3...15 %
Ambient temperature	-25...+70 °C
Operating voltage	20...250 VAC
Operating voltage	10... 300VDC
AC rated operational current	$\leq 100 \text{ mA}$
DC rated operational current	$\leq 100 \text{ mA}$
Frequency	$\geq 50... \leq 60 \text{ Hz}$
Residual current	$\leq 1.7 \text{ mA}$
Rated insulation voltage	$\leq 1.5 \text{ kV}$
Surge current	$\leq 1 \text{ A} (\leq 10 \text{ ms max. } 5 \text{ Hz})$
Short-circuit protection	yes/ latching
Voltage drop at I_n	$\leq 6 \text{ V}$
Wire breakage / Reverse polarity protection	yes/ complete
Output function	2-wire, NO contact
Smallest operating current I_m	$\geq 3 \text{ mA}$
Switching frequency	0.02 kHz
Construction	Threaded barrel, M12 x 1
Dimensions	71 mm
Housing material	Metal, CuZn, chrome-plated
Active area material	Plastic, PA12-GF30
Max. tightening torque housing nut	10 Nm
Electrical connection	Flange connector, 1/2"
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	LED red

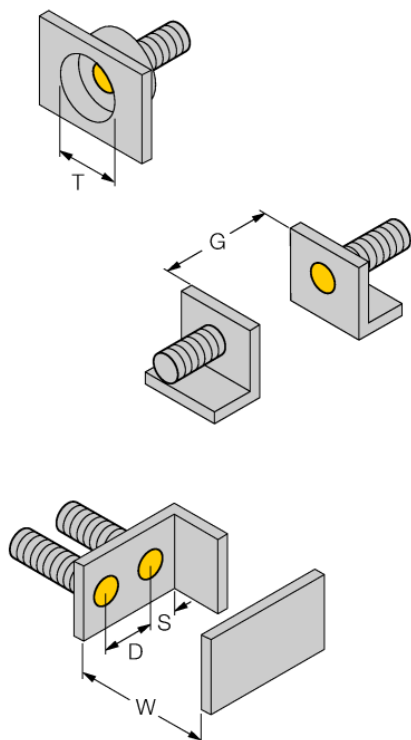
Inductive sensor BI4-G12-ADZ32X-B3131

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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

Diameter of the active area B	Ø 12 mm
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Inductive sensor
BI4-G12-ADZ32X-B3131



Accessories

Type code	Ident-No.	Description	
QM-12	6945101	Quick-mount bracket with dead-stop; material: Chrome-plated brass Male thread M16 x 1. Note: The switching distance of proximity switches can be reduced by the use of quick-mount brackets.	
BST-12B	6947212	Fixing clamp for threaded barrel devices, with dead-stop; material: PA6	
MW-12	6945003	Mounting bracket for threaded barrel devices; material: Stainless steel A2 1.4301 (AISI 304)	
BSS-12	6901321	Mounting bracket for smooth and threaded barrel devices; material: Polypropylene	