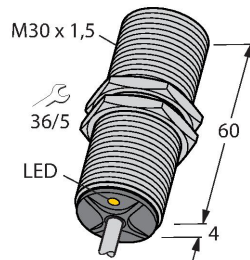


BI12-G30-AM6/37X/S97

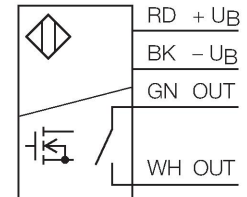
Inductive Sensor – With Extended Temperature Range



Features

- Threaded barrel, M30 x 1.5
- Chrome-plated brass
- Temperatures up to -40 °C
- Supply voltage 10...30 VDC
- Potential-free semiconductor output, galvanically isolated, NO
- Output power max. 300 W (6 A, 50 VDC / 35 VAC)
- Cable connection

Wiring diagram



Technical data

Type	BI12-G30-AM6/37X/S97
ID	1711200
General data	
Rated switching distance	12 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	$\leq \pm 10 \%$ $\leq \pm 20 \%, \leq -25 \text{ °C}$
Hysteresis	3...15 %
Electrical data	
Operating voltage U_B	10...30 VDC
Ripple U_{rs}	$\leq 10 \%$ U_{Bmax}
AC rated operational current	≤ 6000 mA
DC rated operating current I_o	≤ 6000 mA
AC output voltage	≤ 35 VAC
DC output voltage	≤ 50 VDC
output load	≤ 300 W
Residual current	≤ 0.1 mA
Isolation test voltage	0.5 kV
Surge current	≤ 8 A (≤ 10 ms max. 5 Hz)
Short-circuit protection	no

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. Special versions are available for ambient temperatures between -60°C and +250°C.

Technical data

Voltage drop at I _e	≤ 0.4 V
Wire break/reverse polarity protection	yes/yes (voltage supply)
Output function	2-wire, NO contact, Potential-free
Smallest operating current	≥ 1 mA
Switching frequency	0.02 kHz
Mechanical data	
Design	Threaded barrel, M30 x 1.5
Dimensions	64 mm
Housing material	Metal, CuZn, Chrome-plated
Active area material	Plastic, PA12-GF30
End cap	Plastic, EPTR
Max. tightening torque of housing nut	75 Nm
Electrical connection	Cable
Cable quality	Ø 5.2 mm, LifYY-T105, PVC, 2 m
Core cross-section	4 x 0.34 mm ²
Environmental conditions	
Ambient temperature	-40...+70 °C
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

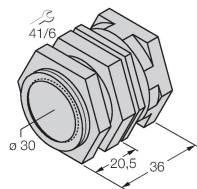


Distance D	2 x B
Distance W	3 x Sn
Distance T	3 x B
Distance S	1.5 x B
Distance G	6 x Sn
Diameter active area B	Ø 30 mm

Accessories

QM-30

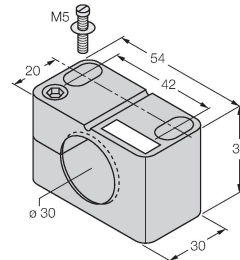
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Quick-mount bracket with dead-stop; material: Chrome-plated brass. Male thread M36 × 1.5. Note: The switching distance of the proximity switches may change when using quick-mount brackets.

BST-30B

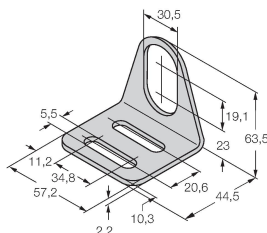
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Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6

MW30

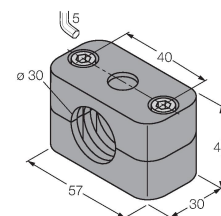
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Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)

BSS-30

6901319



Mounting clamp for smooth and threaded barrel sensors; material: Polypropylene