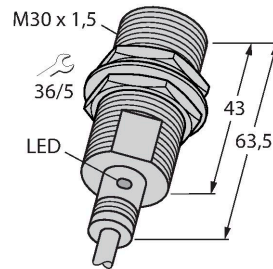


# BI12-EG30F-AG6X

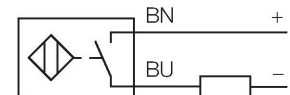
## Inductive Sensor – Stainless Steel Front



### Features

- Threaded barrel, M30 x 1.5
- Stainless steel, 1.4305
- DC 2-wire, 10...30 VDC
- Polarized version
- NO contact
- Cable connection

### Wiring diagram



### Technical data

Type	BI12-EG30F-AG6X
Ident. no.	4614667
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	$\leq 10$ % of full scale
Temperature drift	$\leq \pm 20$ %
Hysteresis	1...15 %
Ambient temperature	-10...+70 °C
Operating voltage	10...30 VDC
Residual ripple	$\leq 10$ % $U_{ss}$
DC rated operational current	$\leq 100$ mA
Rated operational current	at 25°C
Residual current	$\leq 0.8$ mA
Isolation test voltage	$\leq 0.5$ kV
Short-circuit protection	yes / Cyclic
Voltage drop at $I_o$	$\leq 3.5$ V
Wire breakage/Reverse polarity protection	Polarized
Output function	NO contact, 2-wire
Smallest operating current	$\geq 3$ mA
Switching frequency	0.05 kHz

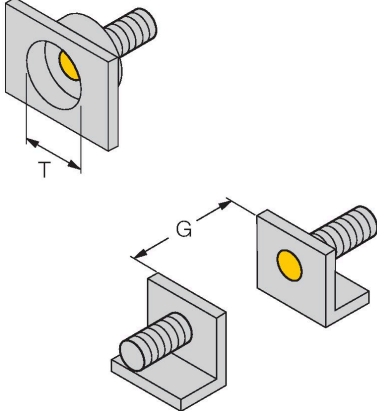
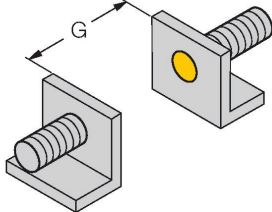
### Functional principle

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

Design	Threaded barrel, M30 × 1.5
Dimensions	63.5 mm
Housing material	Stainless steel, 1.4305 (AISI 303)
Active area material	Stainless steel, 1.4305 (AISI 303)
Max. tightening torque of housing nut	180 Nm
Electrical connection	Cable
Cable quality	Ø 6 mm, Gray, LifYY, PVC, 2 m
Core cross-section	2 x 0.5 mm <sup>2</sup>
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
Switching state	LED, Yellow

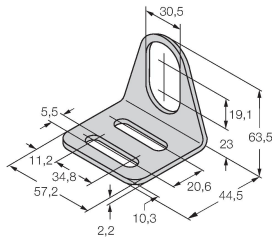
## Mounting instructions

Mounting instructions/Description		
	Distance D	100 mm
	Distance W	48 mm
	Distance T	30 mm (Fe metal); 120 mm (Fe non-metal)
	Distance S	50 mm (Fe metal); 60 mm (non Fe-metal)
	Distance G	110 mm
	Diameter active area B	Ø 30 mm
<p>Switching distance not reduced when flush mounted in ferrous metals</p> <p>When mounted in non-ferrous metals the active face has to protrude 24 mm.</p> <p>The values depend on the mounting nuts used. Therefore we recommend the use of the nuts which are included in the delivery.</p>		

## Accessories

MW-30

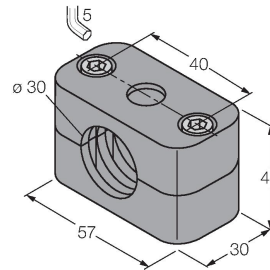
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Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)

BSS-30

6901319



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