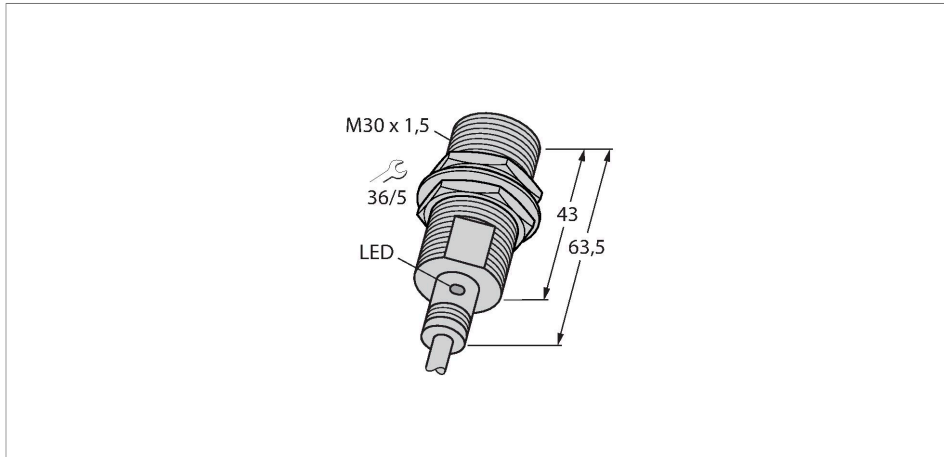


BI12-EG30F-AG6X

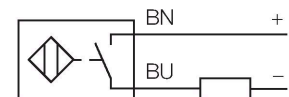
Inductive Sensor – Stainless Steel Front



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

Functional principle

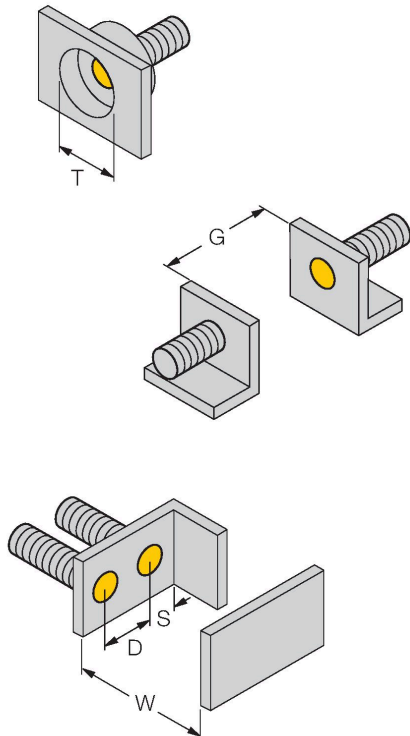
Inductive sensors detect metal objects contactless and wear-free. For this, they use a high-frequency electromagnetic AC field that interacts with the target. Inductive sensors generate this field via an RLC circuit with a ferrite coil.

Technical data

Mechanical data	
Design	Threaded barrel, M30 x 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 ²
Environmental conditions	
Ambient temperature	-10...+70 °C
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

Switching distance not reduced when flush mounted in ferrous metals

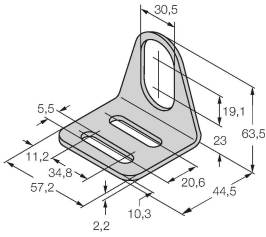
When mounted in non-ferrous metals the active face has to protrude 24 mm.

The values depend on the mounting nuts used. Therefore we recommend the use of the nuts which are included in the delivery.

Accessories

MW-30**6945005**

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

