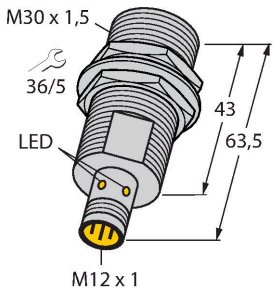
BI10-EG30F-AG6X-H1141
Inductive Sensor – Stainless Steel Front



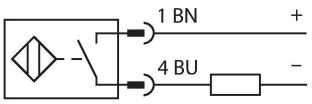
Technical data

Type	BI10-EG30F-AG6X-H1141
ID	4614649
General data	
Rated switching distance	10 mm
Mounting conditions	Flush
Secured operating distance	≤ (0.81 × Sn) mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeat accuracy	≤ 10 % of full scale
Temperature drift	≤ ±20 %
Hysteresis	1…15 %
Electrical data	
Operating voltage U_B	10…30 VDC
Ripple U_{ss}	≤ 10 % U_{Bmax}
DC rated operating current I_e	≤ 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_e	≤ 3.5 V
Wire break/reverse polarity protection	Polarized
Output function	NO contact, 2-wire
Smallest operating current	≥ 3 mA
Switching frequency	0.05 kHz

Features

- Threaded barrel, M30 x 1.5
- Stainless steel, 1.4305
- DC 2-wire, 10…30 VDC
- Polarized version
- NO contact
- M12 x 1 male connector

Wiring diagram



Functional principle

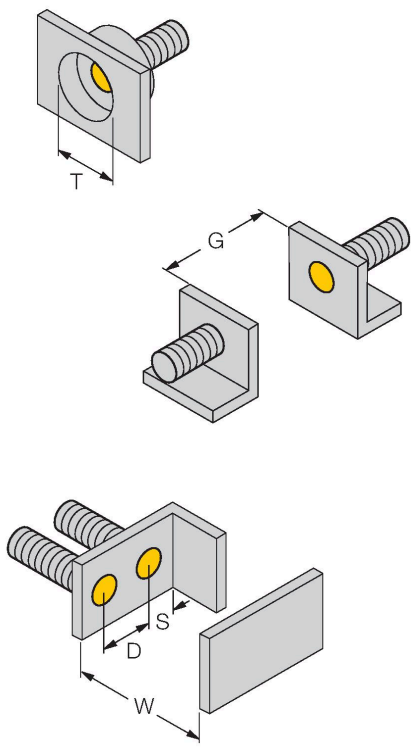
Inductive sensors detect metal objects contactless and wear-free. For this, they use a high-frequency electromagnetic AC field that interacts with the target. Inductive sensors generate this field via an RLC circuit with a ferrite coil.

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	10 Nm
Electrical connection	Connector, M12 × 1
Environmental conditions	
Ambient temperature	-25…+70 °C
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
Switching state	2-color LED, Red/green

Mounting instructions

Mounting instructions/Description



Distance D	100 mm
Distance W	40 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

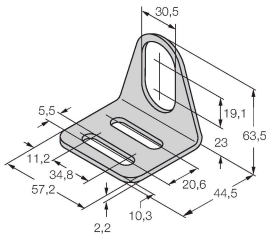
Switching distance not reduced when flush mounted in ferrous metals

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.

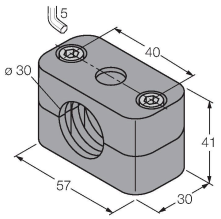
Accessories

MW30	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

BI10-EG30F-AG6X-H1141| 02/21/2025 13-49 | technical changes reserved