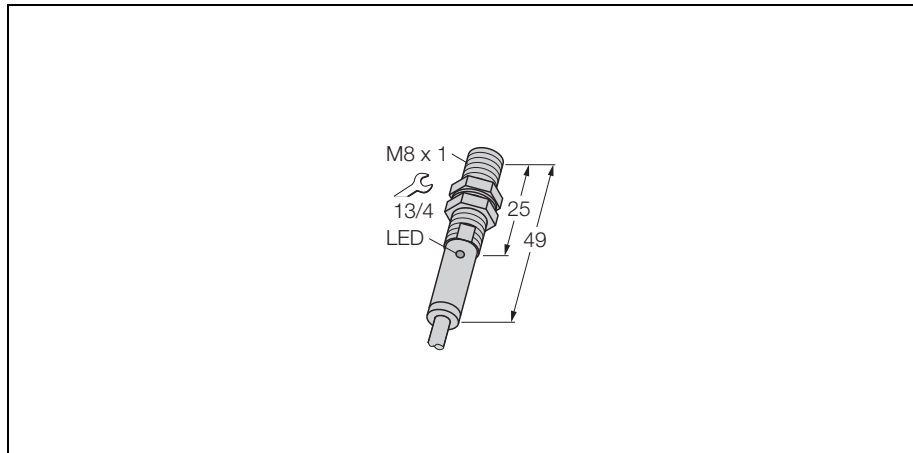


Inductive sensor

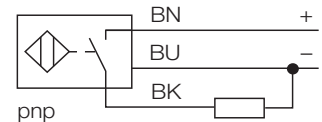
Stainless steel front

Bi1,5-EG08F-AP6X



- Threaded barrel, M8 x 1
- Stainless steel, 1.4305
- 3-wire DC, 10...30 VDC
- normally open, pnp output
- cable connection

Wiring diagram



Functional principle

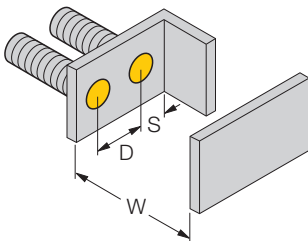
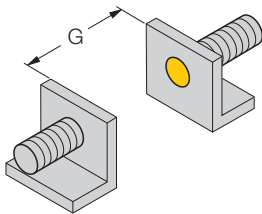
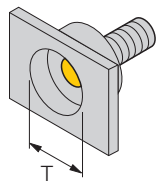
Inductive sensors are designed for wear-free and non-contact detection of metal objects. For this purpose they use a high-frequency electro-magnetic AC field that interacts with the target. Concerning inductive sensors, this field is generated by an LC resonant circuit with a ferrite core coil.

Type	Bi1,5-EG08F-AP6X
Ident-No.	4614626
Rated operating distance Sn	1.5 mm
Mounting condition	flush
Assured sensing range	$\leq (0,81 \times S_n)$ mm
Correction factors	St37 = 1, V2A ~ 0.7, Ms ~ 0.4, Al ~ 0.3
Temperature drift	$\leq \pm 10 \%$
Hysteresis	3... 15 %
Repeatability	$\leq 2 \%$
Ambient temperature	-25...+ 70 °C
Operating voltage	10... 30 VDC
Residual ripple	$\leq 10 \% U_{ss}$
DC rated operational current	≤ 200 mA
No-load current I_0	≤ 15 mA
Residual current	≤ 0.1 mA
Rated insulation voltage	≤ 0.5 kV
Short-circuit protection	yes / cyclic
Voltage drop at I_e	≤ 1.8 V
Wire breakage / Reverse polarity protection	yes / complete
Output function	3-wire, NO contact, PNP
Switching frequency	≤ 0.2 kHz
Housing	threaded barrel, M8 x 1
Dimensions	49 x 8 mm
Housing material	metal, V4A (1.4404)
Material active face	metal, A4 1.4404 (AISI 316L)
Admissible pressure on front cap	≤ 20 bar
Tightening torque of housing nut	10 Nm
Electrical connection	cables
Cable quality	$\varnothing 4$, grey, LifYY, PVC, 2 m
Cable cross section:	$3 \times 0.25 \text{ mm}^2$
Vibration resistance	55 Hz (1 mm)
Shock resistance	30g (11 ms)
Protection class	IP68 / IP69K
Display switch state	LED yellow

Inductive sensor
Stainless steel front
Bi1,5-EG08F-AP6X

Mounting instructions	minimum distances
Distance D	30 mm
Distance W	4.5 mm
Distance T	8 mm (Fe metal); 50 mm (Fe non-metal)
Distance S	15 mm (Fe metal); 25 mm (non Fe-metal)
Distance G	35 mm

Diameter of the active area B	Ø 8 mm
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Switching distance not reduced when flush mounted in ferrous metals

When mounted in non-ferrous metals the active face has to protrude 10 mm.

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