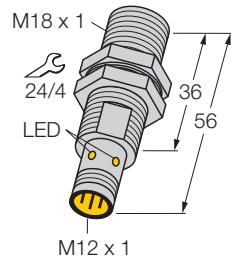


Inductive sensor

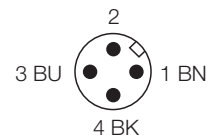
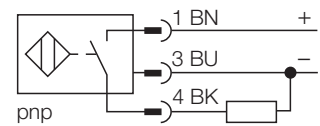
Stainless steel front

Bi5-EG18F-AP6X-H1141



- Threaded barrel, M18x1
- Stainless steel, 1.4305
- 3-wire DC, 10...30 VDC
- normally open, pnp output
- connector, M12 x 1

Wiring diagram



Functional principle

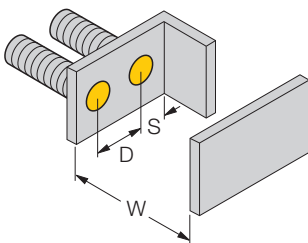
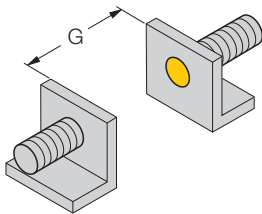
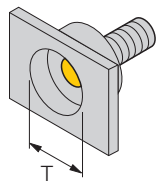
Inductive sensors are designed for wear-free and non-contact detection of metal objects. For this purpose they use a high-frequency electro-magnetic AC field that interacts with the target. Concerning inductive sensors, this field is generated by an LC resonant circuit with a ferrite core coil.

Type	Bi5-EG18F-AP6X-H1141
Ident-No.	4614641
Rated operating distance Sn	5 mm
Mounting condition	flush
Assured sensing range	≤ (0,81 x Sn) mm
Correction factors	St37 = 1, V2A ~ 0.7, Ms ~ 0.4, Al ~ 0.3
Temperature drift	≤ ± 10 %
Hysteresis	3... 15 %
Repeatability	≤ 2 %
Ambient temperature	-25...+ 70 °C
Operating voltage	10... 30 VDC
Residual ripple	≤ 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	≤ 0.1kHz
Housing	threaded barrel, M18 x 1
Dimensions	56 x 18 mm
Housing material	metal, V2A (1.4305)
Material active face	metal, A2 1.4305 (AISI 303)
Admissible pressure on front cap	≤ 20 bar
Tightening torque of housing nut	10 Nm
Electrical connection	Connectors, M12 x 1
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
Bi5-EG18F-AP6X-H1141

Mounting instructions	minimum distances
Distance D	60 mm
Distance W	20 mm
Distance T	18 mm (Fe metal); 80 mm (non Fe-metal)
Distance S	30 mm (Fe metal); 40 mm (non Fe-metal)
Distance G	65 mm

Diameter of the active area B	Ø 18 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 16 mm.

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