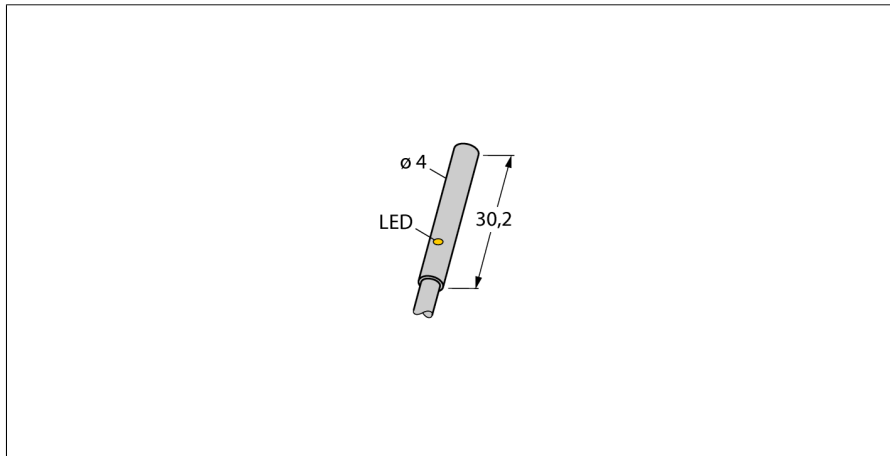


Inductive sensor BI1-EH04-AP6X

TURCK

Industrial
Automation



- Smooth barrel, Ø 4 mm
- Stainless steel, 1.4427 SO
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- Cable connection

Wiring Diagram



Functional principle

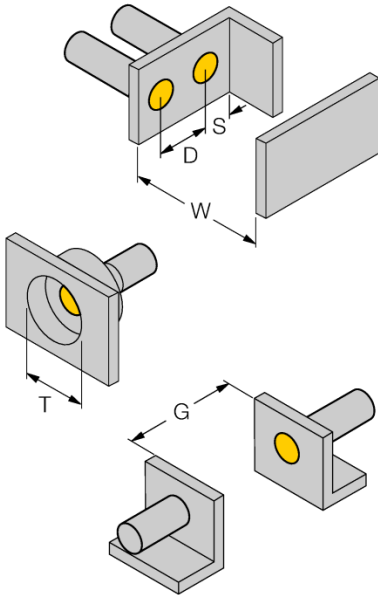
Inductive sensors detect metal objects contactless and wear-free. For this, they use a high-frequency electromagnetic AC field that interacts with the target. Inductive sensors generate this field via an RLC circuit with a ferrite coil.

Type designation	BI1-EH04-AP6X
Ident no.	4609540
Rated switching distance S_n	1 mm
Mounting conditions	Flush
Secured operating distance	≤ (0,81 x S _n) mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeat accuracy	≤ 2 % of full scale
Temperature drift	≤ ± 10 %
Hysteresis	3...15 %
Ambient temperature	-25...+70 °C
Operating voltage	10...30 VDC
Residual ripple	≤ 10 % U _{ss}
DC rated operational current	≤ 100 mA
No-load current I ₀	≤ 15 mA
Residual current	≤ 0.1 mA
Isolation test voltage	≤ 0.5 kV
Short-circuit protection	yes/ Cyclic
Voltage drop at I ₀	≤ 1.8 V
Wire breakage/Reverse polarity protection	yes/ Complete
Output function	3-wire, NO contact, PNP
Reverse polarity protection	Complete
Switching frequency	3 kHz
Design	Smooth barrel, 4 mm
Dimensions	30.2 mm
Housing material	Stainless steel, 1.4427 SO
Active area material	Plastic, PA12
End cap	Plastic, PA12
Electrical connection	Cable
Cable quality	3 mm, LiFY-11Y, PUR, 2m
Cable cross section	3 x 0.14 mm ²
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
MTTF	2283 years acc. to SN 29500 (Ed. 99) 40 °C
Switching state	LED yellow

**Inductive sensor
BI1-EH04-AP6X**

Distance D	2 x B
Distance W	3 x Sn
Distance T	3 x B
Distance S	1.5 x B
Distance G	6 x Sn

Diameter active area B \varnothing 4 mm



Accessories

Type code	Ident no.	Description	
BS 540	69475	Fixing clamp; material mounting block: Anodized aluminium; clamp sleeve: Steel	
MBS40	69477	Fixing clamp; material mounting block: Anodized aluminium	