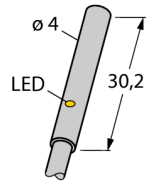


# Inductive sensor BI1-EH04-RP6X

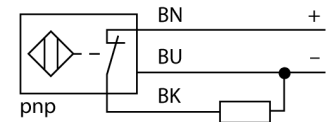
**TURCK**

Industrial  
Automation



- Smooth barrel, Ø 4 mm
- Stainless steel, 1.4427 SO
- DC 3-wire, 10...30 VDC
- NC 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.

<b>Type designation</b>	BI1-EH04-RP6X
Ident no.	4608442
<b>Rated switching distance Sn</b>	1 mm
Mounting conditions	Flush
Secured operating distance	≤ (0,81 x Sn) 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
<b>Operating voltage</b>	10...30 VDC
Residual ripple	≤ 10 % U <sub>ss</sub>
DC rated operational current	≤ 100 mA
No-load current I <sub>0</sub>	≤ 15 mA
Residual current	≤ 0.1 mA
Isolation test voltage	≤ 0.5 kV
Short-circuit protection	yes/ Cyclic
Voltage drop at I <sub>0</sub>	≤ 1.8 V
Wire breakage/Reverse polarity protection	yes/ Complete
Output function	3-wire, NC contact, PNP
Reverse polarity protection	Complete
Switching frequency	3 kHz
<b>Design</b>	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, Gray, Lif9Y-11Y, PUR, 2m Suited for E-ChainSystems® acc. to manufacturers declaration H1063M
Cable cross section	3 x 0.14 mm <sup>2</sup>
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
<b>Switching state</b>	LED yellow

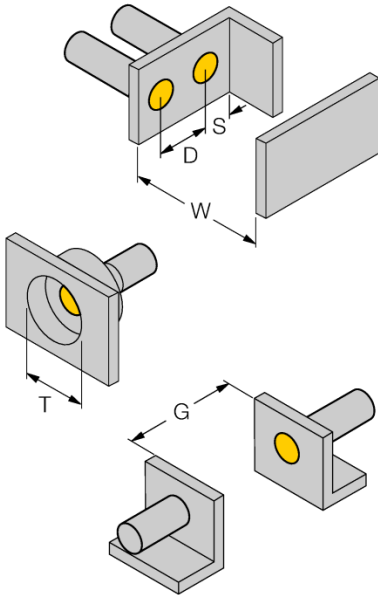
**Inductive sensor  
BI1-EH04-RP6X**

---

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	