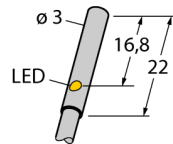


Inductive sensor BI1-EH03-AP6X

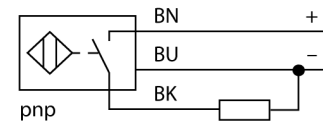
TURCK
works

Industrial
Automation



- Smooth barrel, Ø 3 mm
- Stainless steel 1.4301
- 3-wire DC, 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.

We offer special versions for temperatures of -60 °C up to +250 °C.

Type code	BI1-EH03-AP6X
Ident-No.	1619325
Rated operating distance Sn	1 mm
Mounting condition	flush
Assured switching distance	≤ (0,81 x Sn) mm
Correction factors	St37 = 1; Al = 0.5; Cu=0.45; stainless steel = 0.8; Ms = 0.6
Repeatability	≤ 2 % of full scale
Temperature drift	≤ ± 10 %
Hysteresis	3...15 %
Ambient temperature	-25...+70 °C
Operating voltage	10...30VDC
Residual ripple	≤ 20 % U _{in}
DC rated operational current	≤ 100 mA
No-load current I ₀	≤ 10 mA
Residual current	≤ 0.1 mA
Rated insulation voltage	≤ 0.5 kV
Short-circuit protection	yes/ cyclic
Voltage drop at I ₀	≤ 2 V
Wire breakage / Reverse polarity protection	yes/ complete
Output function	3-wire, NO contact, PNP
Switching frequency	3 kHz
Construction	smooth barrel, 3 mm
Dimensions	22 mm
Housing material	metal, V2A (1.4301)
Material active area	plastic, Polyester
Connection	cable
Cable quality	2.6 mm, LiFY-11Y, PUR, 2m
Cable cross section	3 x 0.055 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

Inductive sensor BI1-EH03-AP6X

Distance D	2 x B
Distance W	3 x Sn
Distance T	3 x B
Distance S	1.5 x B
Distance G	9 x Sn

Diameter of the active area B \varnothing 3 mm

