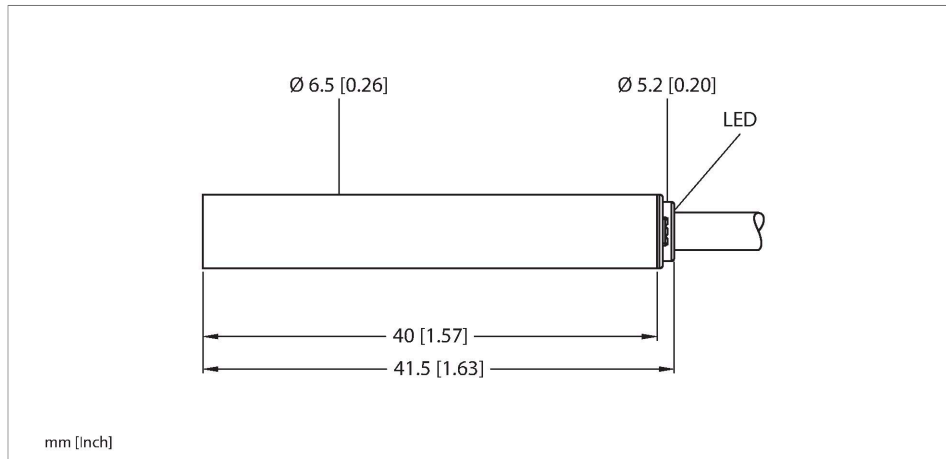


BI1.5-EH6.5-AP6X/S100

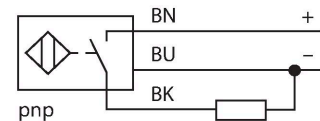
Inductive Sensor – With Increased Temperature Range



Features

- Smooth barrel, Ø 6.5 mm
- Stainless steel, 1.4305 (AISI 303)
- Temperatures up to +100 °C
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- Cable connection

Wiring diagram

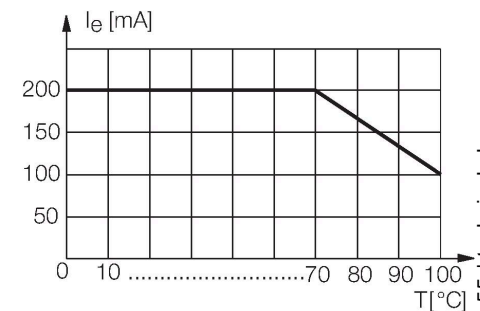


Technical data

Type	BI1.5-EH6.5-AP6X/S100
Ident. no.	4612001
Special version	S100 corresponds to: Maximum ambient temperature = 100 °C
Rated switching distance	1.5 mm
Mounting conditions	Flush
Secured operating distance	≤ (0.81 × 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 % ≤ ± 20 %, ≥ +70 °C
Hysteresis	20 %
Ambient temperature	-25...+100 °C
Operating voltage	10...30 VDC
Residual ripple	≤ 10 % U _{ss}
DC rated operational current	≤ 150 mA
Rated operational current	See derating curve
No-load current	≤ 15 mA
Residual current	≤ 0.1 mA
Isolation test 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

Functional principle

Inductive sensors detect metal objects contactless and wear-free. For this purpose they use a high-frequency electromagnetic AC field that interacts with the target. The sensors hosting a ferrite core coil generate the AC field through an LC resonant circuit. Special versions are available for ambient temperatures between -60°C and +250°C.



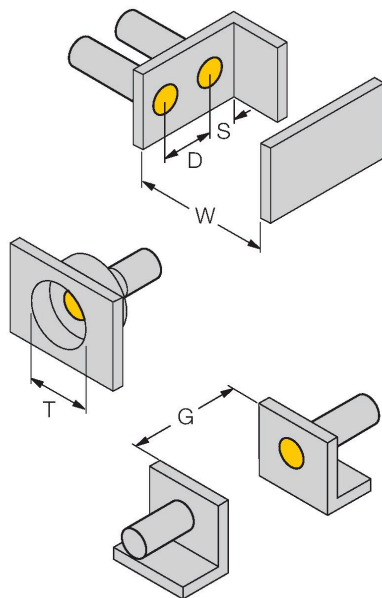
BI1.5-EH6.5-AP6X/S100 | 12/03/2020 04-55 | technical changes reserved

Technical data

Switching frequency	3 kHz
Design	Smooth barrel, 6.5 mm
Dimensions	41.5 mm
Housing material	Stainless steel, 1.4305 (AISI 303)
Active area material	Plastic, PA6.6
End cap	Plastic, PP
Electrical connection	Cable
Cable quality	Ø 3.3 mm, Gray, LifY-11Y, PUR, 2 m
Core 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

Mounting instructions

Mounting instructions/Description



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	Ø 6.5 mm