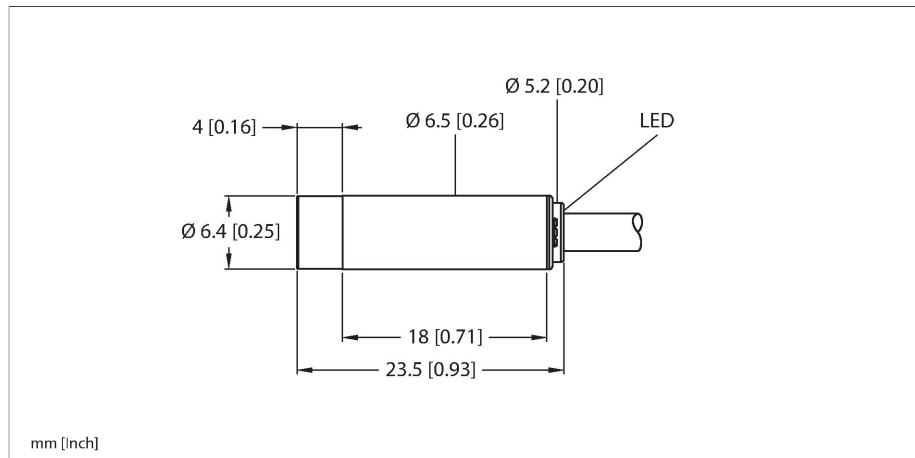


NI3-EH6.5K-AN6X

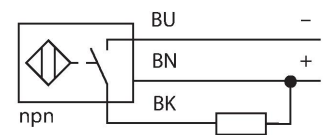
Inductive Sensor



Features

- Smooth barrel, Ø 6.5 mm
- Stainless steel, 1.4305 (AISI 303)
- DC 3-wire, 10...30 VDC
- NO contact, NPN output
- Cable connection

Wiring diagram



Technical data

Type	NI3-EH6.5K-AN6X
ID	4610300
General data	
Rated switching distance	3 mm
Mounting conditions	Non-flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeat accuracy	≤ 2 % of full scale
Temperature drift	$\leq \pm 10$ %
Hysteresis	20 %
Electrical data	
Operating voltage U_B	10...30 VDC
Ripple U_{ss}	≤ 10 % U_{Bmax}
DC rated operating current I_o	≤ 150 mA
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_o	≤ 1.8 V
Wire break/reverse polarity protection	yes/Complete
Output function	3-wire, NO contact, NPN
Switching frequency	3 kHz
Mechanical data	
Design	Smooth barrel, 6,5 mm
Dimensions	23.5 mm
Housing material	Stainless steel, 1.4305 (AISI 303)

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.

Technical data

Active area material	Plastic, PBT
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
Environmental conditions	
Ambient temperature	-25...+70 °C
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

The image contains three technical diagrams of a mounting bracket. The top diagram is a perspective view showing the bracket with two yellow pins. Dimensions are labeled: 'N' for the distance between the pins, 'S' for the distance from the pins to the back edge, 'D' for the distance from the pins to the front edge, and 'W' for the total width. A separate rectangular plate is shown to the right. The bottom-left diagram is a top-down view of the bracket, showing a circular hole and a dimension 'T' for the distance from the hole to the side edge. The bottom-right diagram is a side view showing the bracket's profile and a dimension 'G' for the distance between two pins.

Distance D	3 x B
Distance W	3 x Sn
Distance T	3 x B
Distance S	1.5 x B
Distance G	6 x Sn
Distance N	2 x Sn
Diameter active area B	Ø 6.5 mm