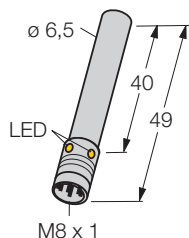


Inductive sensor

Bi1,5-EH6,5-AP6X-V1131

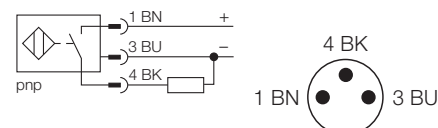
TURCK

Industrial
Automation



- smooth barrel, 6.5 mm diameter
- stainless steel, 1.4404
- 3-wire DC, 10...30 VDC
- normally open, pnp output
- connector, M8 x 1

Wiring diagram



Functional principle

Inductive sensors are designed for wear-free and non-contact detection of metal objects. For this purpose they use a high-frequency electro-magnetic AC field that interacts with the target. Concerning inductive sensors, this field is generated by an LC resonant circuit with a ferrite core coil.

Type	Bi1,5-EH6,5-AP6X-V1131
Ident-No.	4612020
Rated operating distance S_n	1.5 mm
Mounting condition	flush
Assured sensing range	$\leq (0,81 \times S_n)$ mm
Correction factors	$St37 = 1, V2A \sim 0.7, Ms \sim 0.4, Al \sim 0.3$
Repeatability	$\leq 2\%$
Temperature drift	$\leq \pm 10\%$
Hysteresis	3... 15 %
Ambient temperature	-25...+ 70 °C
Operating voltage	10... 30 VDC
Residual ripple	$\leq 10\% U_{ss}$
DC rated operational current	≤ 150 mA
No-load current I_0	≤ 15 mA
Residual current	≤ 0.1 mA
Rated insulation 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
Switching frequency	≤ 3 kHz
Housing	smooth barrel, 6.5 mm
Dimensions	49 mm
Housing material	metal, V2A (1.4301)
Material active face	Plastic, plastic, PA12-GF20
Electrical connection	Connectors, M8 x 1
Vibration resistance	55 Hz (1 mm)
Shock resistance	30g (11 ms)
Protection class	IP67
Display switch state	LED yellow

Inductive sensor Bi1,5-EH6,5-AP6X-V1131

Mounting instructions	minimum distances
Distance D	$2 \times B$
Distance W	$3 \times S_n$
Distance T	$3 \times B$
Distance S	$1.5 \times B$
Distance G	$6 \times S_n$
Diameter of the active area B	$\varnothing 6.5 \text{ mm}$

