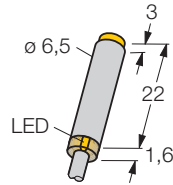


Inductive sensor Ni3-EH6,5K-AP6X

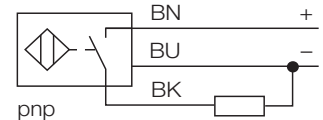
TURCK

Industrial
Automation



- smooth barrel, 6.5 mm diameter
- stainless steel, 1.4404
- 3-wire DC, 10...30 VDC
- normally open, pnp output
- cable connection

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	Ni3-EH6,5K-AP6X
Ident-No.	4610200
Rated operating distance S_n	3 mm
Mounting condition	non-flush
Assured sensing range	$\leq (0,81 \times S_n)$ mm
Correction factors	St37 = 1, V2A ~ 0.7, Ms ~ 0.4, Al ~ 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	≤ 200 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	23.6 mm
Housing material	metal, V4A (1.4404)
Material active face	Plastic, plastic, PA12-GF20
End cap	plastic, PP
Electrical connection	cables
Cable quality	Ø 4, LifYY-11Y, PUR, 2 m
Cable cross section:	3 x 0.25mm ²
Vibration resistance	55 Hz (1 mm)
Shock resistance	30g (11 ms)
Protection class	IP67
Display switch state	LED yellow

Inductive sensor Ni3-EH6,5K-AP6X

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

