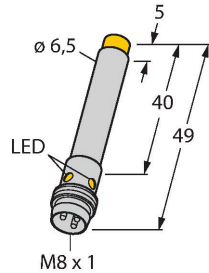


NI4U-EH6.5-AP6X-V1131

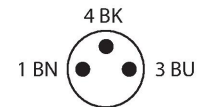
Inductive Sensor



Features

- Smooth barrel, Ø 6.5 mm
- Stainless steel, 1.4427 SO
- Factor 1 for all metals
- Protection class IP68
- Resistant to magnetic fields
- Extended temperature range
- High switching frequency
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- M8 x 1 male connector

Wiring diagram



Technical data

Type	NI4U-EH6.5-AP6X-V1131
ID	4600681
General data	
Rated switching distance	4 mm
Mounting conditions	Non-flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Repeat accuracy	$\leq 2 \%$ of full scale
Temperature drift	$\leq \pm 10 \%$
	$\leq \pm 15 \%, \leq -25 \text{ °C v } \geq +70 \text{ °C}$
Hysteresis	3...15 %
Electrical data	
Operating voltage U_B	10...30 VDC
Ripple U_{ss}	$\leq 10 \%$ U_{Bmax}
DC rated operating current I_o	$\leq 150 \text{ mA}$
No-load current	$\leq 15 \text{ mA}$
Residual current	$\leq 0.1 \text{ mA}$
Isolation test voltage	0.5 kV
Short-circuit protection	yes/Cyclic
Voltage drop at I_o	$\leq 1.8 \text{ V}$
Wire break/reverse polarity protection	yes/Complete
Output function	3-wire, NO contact, PNP
DC field stability	200 mT
AC field stability	200 mT _{ss}
Insulation class	2

Functional principle

Inductive sensors are designed for wear-free and contactless detection of metal objects. uprox Factor 1 sensors have significant advantages due to their patented ferrite-coreless multi-coil system. They detect all metals at the same large switching distance and are resistant to magnetic fields.

Technical data

Switching frequency	2 kHz
Mechanical data	
Design	Smooth barrel, 6,5 mm
Dimensions	49 mm
Housing material	Stainless steel, 1.4427 SO
Active area material	Plastic, PA12-GF20
Electrical connection	Connector, M8 × 1
Environmental conditions	
Ambient temperature	-30...+85 °C
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP68
MTTF	874 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 the TURCK NI4U-EH6.5-AP6X-V1131 sensor. The top diagram is a perspective view showing the sensor's mounting plate with two yellow cylindrical sensors. Dimensions are indicated: N (distance between sensor centers), S (distance from sensor center to plate edge), D (distance from sensor center to mounting hole center), and W (distance between mounting holes). The bottom-left diagram is a side view showing the sensor's profile with dimension T (thickness of the mounting plate). The bottom-right diagram is a front view showing the sensor's mounting plate with dimension G (distance from sensor center to mounting hole center).

Distance D	4 x B
Distance W	3 x Sn
Distance T	4 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

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