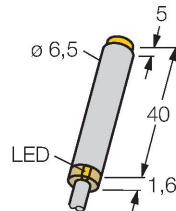


NI6U-EH6.5-AP6X

Inductive Sensor – With Extended Switching Distance



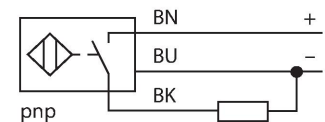
Features

- Smooth barrel, Ø 6.5 mm
- Stainless steel, 1.4427 SO
- Factor 1 for all metals
- Protection class IP68
- Resistant to magnetic fields
- Large switching distance
- High switching frequency
- Integrated protection against predamping
- Little metal-free spaces
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- Cable connection

Technical data

Type	NI6U-EH6.5-AP6X
ID	4631500
General data	
Rated switching distance	6 mm
Mounting conditions	Non-flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Repeat accuracy	$\leq 2 \%$ of full scale
Temperature drift	$\leq \pm 10 \%$
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	≤ 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, PNP
DC field stability	200 mT
AC field stability	200 mT _{ss}
Insulation class	□
Switching frequency	1 kHz
Mechanical data	
Design	Smooth barrel, 6,5 mm
Dimensions	41.6 mm

Wiring diagram



Functional principle

Inductive sensors are designed for wear-free and contactless detection of metal objects. uprox+ sensors have significant advantages due to their patented multi-coil system. They excel thanks to their optimum switching distances, maximum flexibility and operational reliability as well as efficient standardization.

Technical data

Housing material	Stainless steel, 1.4427 SO
Active area material	Plastic, PA12-GF20
End cap	Plastic, EPTR
Electrical connection	Cable
Cable quality	Ø 4 mm, LiYY-11Y, PUR, 2 m
Core cross-section	3 x 0.25 mm ²
Environmental conditions	
Ambient temperature	-25...+70 °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 illustrating the mounting of the sensor. The top diagram shows a side view of a sensor mounted on a bracket, with dimensions N (distance from the top edge of the bracket to the top of the sensor), S (distance from the top of the sensor to the top of the mounting plate), D (distance from the bottom of the sensor to the bottom of the mounting plate), and W (width of the mounting plate). The middle diagram shows a top view of the sensor barrel, which is cylindrical with a yellow top section. The bottom diagram shows a detail of the mounting bracket with dimension T (thickness of the bracket), and another detail showing dimension G (distance from the center of the sensor to the center of the mounting plate).

This diagram shows a top view of the sensor barrel. It is a cylindrical component with a yellow top section, likely indicating the active area or a specific mounting feature.

Distance D	26 mm
Distance W	18 mm
Distance T	36 mm
Distance S	10 mm
Distance G	36 mm
Distance N	12 mm
Diameter active area B	Ø 6.5 mm

All non-flush mountable cylindrical uprox+ sensors can be screwed to the upper edge of the barrel. Safe operation of the Ø 6.5 mm version is guaranteed with reduced switching distance of max. 30 %.