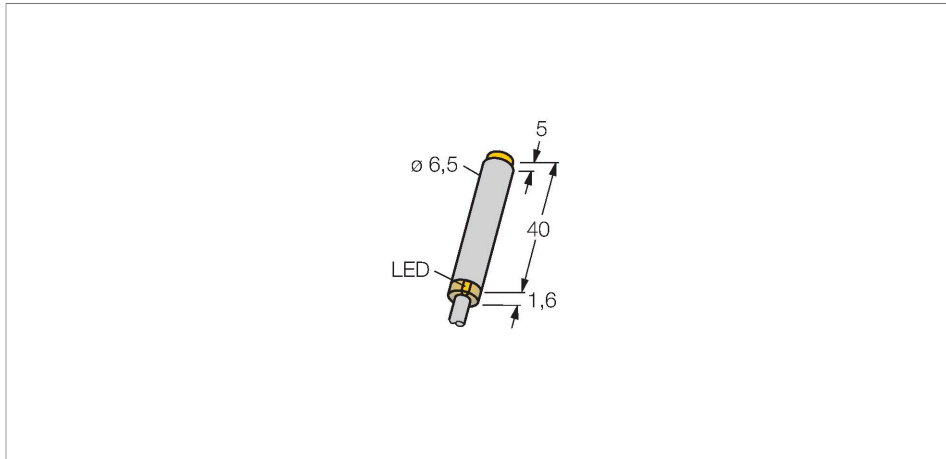


# NI6U-EH6.5-AP6X

## Inductive Sensor – With Extended Switching Distance



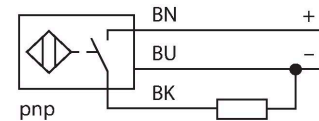
### Features

- 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
<b>General data</b>	
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 %
<b>Electrical data</b>	
Operating voltage	10...30 VDC
Residual ripple	$\leq 10\% U_{ss}$
DC rated operational current	$\leq 150$ mA
No-load current	15 mA
Residual current	$\leq 0.1$ mA
Isolation test voltage	$\leq 0.5$ kV
Short-circuit protection	yes / Cyclic
Voltage drop at $I_o$	$\leq 1.8$ V
Wire breakage/Reverse polarity protection	yes / Complete
Output function	3-wire, NO contact, PNP
DC field stability	200 mT
AC field stability	200 mT <sub>ss</sub>
Insulation class	□
Switching frequency	1 kHz

### 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

Mechanical data	
Design	Smooth barrel, 6,5 mm
Dimensions	41.6 mm
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, LifYY-11Y, PUR, 2 m
Core cross-section	3 x 0.25 mm <sup>2</sup>
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															
	<table border="1"> <tbody> <tr> <td>Distance D</td> <td>26 mm</td> </tr> <tr> <td>Distance W</td> <td>18 mm</td> </tr> <tr> <td>Distance T</td> <td>36 mm</td> </tr> <tr> <td>Distance S</td> <td>10 mm</td> </tr> <tr> <td>Distance G</td> <td>36 mm</td> </tr> <tr> <td>Distance N</td> <td>12 mm</td> </tr> <tr> <td>Diameter active area B</td> <td>Ø 6.5 mm</td> </tr> </tbody> </table>	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
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Diameter active area B	Ø 6.5 mm														
<p>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 %.</p>															