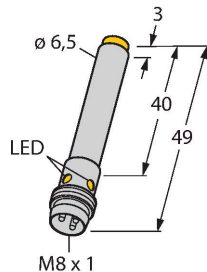


NI6U-EH6.5-AP6X-V1131

Inductive Sensor – With Extended Switching Distance



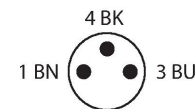
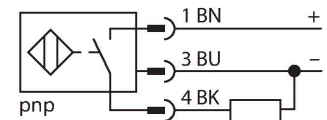
Features

- 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
- M8 x 1 male connector

Technical data

Type	NI6U-EH6.5-AP6X-V1131
ID	4631510
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_e	≤ 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_e	≤ 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	49 mm

Wiring diagram



Functional principle

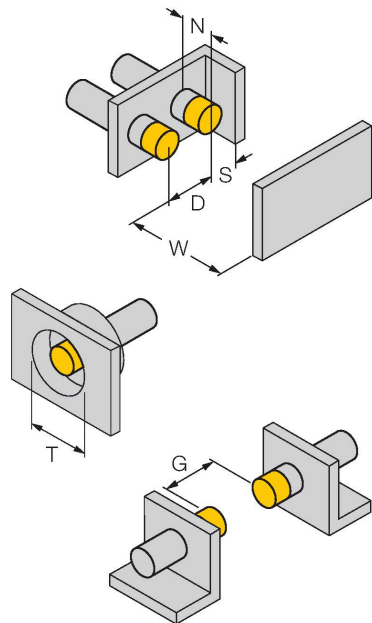
Inductive sensors are designed for wear-free and contactless detection of metal objects. uprox+ sensors have significant advantages due to their patented multi-coil system. They excel thanks to their optimum switching distances, maximum flexibility and operational reliability as well as efficient standardization.

Technical data

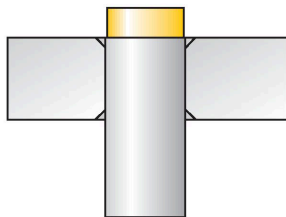
Housing material	Stainless steel, 1.4427 SO
Active area material	Plastic, PA12-GF20
Electrical connection	Connector, M8 × 1
Environmental conditions	
Ambient temperature	-25...+70 °C
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP68
MTTF	874 years acc. to SN 29500 (Ed. 99) 40 °C
Switching state	LED, Yellow

Mounting instructions

Mounting instructions/Description



The image shows three views of the mounting bracket. The top view is an isometric representation of the bracket with a yellow cylindrical sensor attached. Dimensions labeled include 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 edge of the bracket), D (distance from the bottom edge of the bracket to the bottom of the sensor), W (width of the bracket), and T (thickness of the bracket). The bottom view shows two side views of the bracket. The left side view shows the bracket with the sensor attached, and the right side view shows the bracket without the sensor. The dimension G is labeled as the distance from the bottom edge of the bracket to the bottom of the sensor.

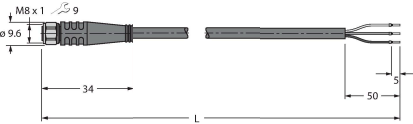


This is a top-down view of the sensor and bracket assembly. The sensor is a yellow cylinder with a black top. The bracket is a grey L-shaped piece. The sensor is mounted on the top edge of the bracket. The dimensions N, S, D, W, and T are indicated by arrows pointing to the corresponding parts of the assembly.

Distance D	26 mm
Distance W	18 mm
Distance T	26 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 %.

Accessories

Dimension drawing	Type	ID	
	PKG3M-2/TEL	6625385	Connection cable, M8 female connector, straight, 3-pin, stainless steel coupling nut, cable length: 2 m, jacket material: PVC, black; cULus approval