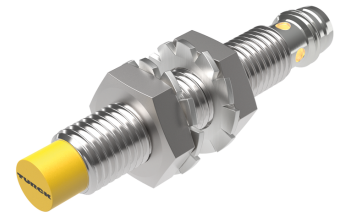
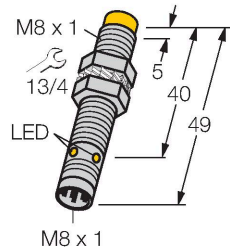


NI6U-EG08-AP6X-V1131

Inductive Sensor – With Extended Switching Distance



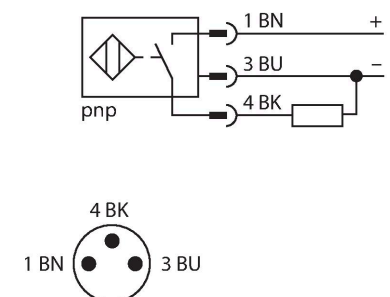
Technical data

Type	NI6U-EG08-AP6X-V1131
ID	4635801
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	$\leq \pm 10 \%$
	$\leq \pm 20 \%, \leq 0 \text{ } ^\circ\text{C}$
Hysteresis	3...15 %
Electrical data	
Operating voltage U_B	10...30 VDC
Ripple U_{ss}	$\leq 10 \%$ U_{Bmax}
DC rated operating current I_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	Threaded barrel, M8 x 1

Features

- Threaded barrel, M8 x 1
- 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

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

Dimensions	49 mm
Housing material	Stainless steel, 1.4427 SO
Active area material	Plastic
Max. tightening torque of housing nut	5 Nm
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 four technical diagrams illustrating different mounting methods for the sensor.
 1. Top left: A side view of a sensor mounted on a plate. Dimension 'T' indicates the distance from the mounting surface to the sensor's active area.
 2. Middle left: Two sensors are shown mounted on a plate. Dimension 'G' indicates the distance between the mounting surfaces of the two sensors.
 3. Bottom left: Two sensors are mounted on a plate. Dimensions 'N', 'S', 'D', and 'W' are shown. 'N' is the distance from the mounting surface to the sensor's active area. 'S' is the distance between the mounting surfaces of the two sensors. 'D' is the distance from the mounting surface to the sensor's active area. 'W' is the width of the mounting plate.
 4. Right: A top view of a sensor with a cross-shaped mounting flange. The flange has a central hole and four outer holes for mounting.

Distance D	32 mm
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Distance W	18 mm
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Distance T	32 mm
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Distance S	12 mm
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Distance G	36 mm
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Distance N	12 mm
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Diameter active area B	Ø 8 mm
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All non-flush mountable uprox®+ threaded barrel sensors can be screwed to the upper edge of the barrel. In this mounting position, the sensor operates safely with a 20 % reduced switching distance.

