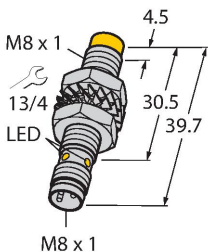


NI3-M08-AP6X-V1131

Inductive Sensor



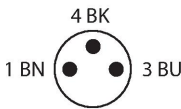
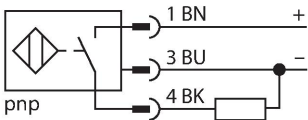
Technical data

Type	NI3-M08-AP6X-V1131
ID	4602930
General data	
Rated switching distance	3 mm
Mounting conditions	Non-flush
Secured operating distance	≤ (0.81 × Sn) mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeat accuracy	≤ 2 % of full scale
Temperature drift	≤ ±10 %
Hysteresis	3...15 %
Electrical data	
Operating voltage U _B	10...30 VDC
Ripple U _{ss}	≤ 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
Switching frequency	2.8 kHz
Mechanical data	
Design	Threaded barrel, M8 x 1
Dimensions	39.7 mm
Housing material	Metal, CuZn, Nickel Plated

Features

- Threaded barrel, M8 x 1
- Nickel-plated brass
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- M8 x 1 male connector

Wiring diagram



Functional principle

Inductive sensors detect metal objects contactless and wear-free. For this, they use a high-frequency electromagnetic AC field that interacts with the target. Inductive sensors generate this field via an RLC circuit with a ferrite coil.

Technical data

Active area material	Plastic, PP-GF20
Max. tightening torque of housing nut	7 Nm
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	IP67
MTTF	2283 years acc. to SN 29500 (Ed. 99) 40 °C
Switching state	LED, Yellow

Mounting instructions

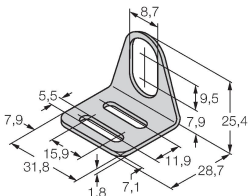
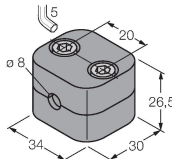
Mounting instructions/Description

The image contains three technical diagrams illustrating different mounting configurations for a sensor. The sensor is represented by a grey L-shaped bracket with a yellow cylindrical active area.

- Top Diagram:** A side view of the sensor mounted on a vertical surface. Dimension **T** indicates the distance from the mounting surface to the center of the active area.
- Middle Diagram:** A top view of two sensors mounted on a horizontal surface. Dimension **G** is the distance between the centers of the two sensors. Dimension **S** is the distance from the mounting surface to the center of the active area.
- Bottom Diagram:** A perspective view of a sensor mounted on a horizontal plate. Dimensions shown include:
 - N:** Distance from the mounting surface to the center of the active area.
 - D:** Distance from the mounting surface to the center of the active area.
 - S:** Distance from the mounting surface to the center of the active area.
 - W:** Width of the mounting plate.

Distance D	3 x B
Distance W	3 x Sn
Distance T	3 x B
Distance S	1.5 x B
Distance G	6 x Sn
Distance N	2 x Sn
Diameter active area B	Ø 8 mm

Accessories

MW08	6945008	BSS-08	6901322
			
Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)		Mounting clamp for smooth and threaded barrel sensors; material: Polypropylene	

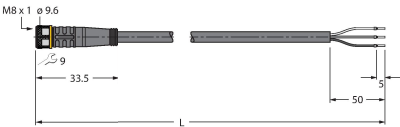
MBS8069479



Mounting clamp for smooth barrel sensors; mounting block material: Anodized aluminum

Accessories

Dimension drawing	Type	ID	
	PKG3M-2/TEL	6625058	



Connection cable, M8 female connector, straight, 3-pin, cable length: 2 m, jacket material: PVC, black; cULus approval