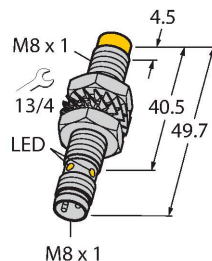


NI3-M08E-AP6X-V1131

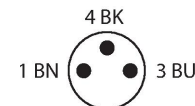
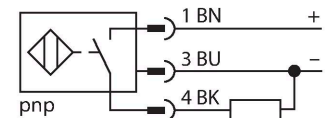
Inductive Sensor – With Increased Switching Distance



Features

- Threaded barrel, M8 x 1
- Nickel-plated brass
- Large sensing range
- 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

Type	NI3-M08E-AP6X-V1131
ID	4602836
General data	
Rated switching distance	3 mm
Mounting conditions	Non-flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeat accuracy	≤ 2 % of full scale
Temperature drift	$\leq \pm 10$ %
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	49.7 mm
Housing material	Metal, CuZn, Nickel Plated

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

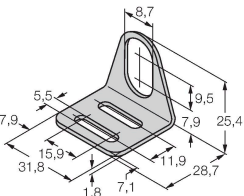
The image contains three technical diagrams illustrating different mounting methods for a sensor. The top diagram shows a side view of a sensor mounted on a plate, with dimension T indicating the distance from the mounting surface to the sensor's active area. The middle diagram shows a top view of two sensors mounted on a plate, with dimension G indicating the distance between the sensors and dimension S indicating the distance from the mounting surface to the sensor's active area. The bottom diagram shows a perspective view of a sensor mounted on a plate, with dimensions N, D, S, and W indicating various distances and dimensions related to the mounting configuration.

Distance D	$3 \times B$
Distance W	$3 \times S_n$
Distance T	$3 \times B$
Distance S	$1.5 \times B$
Distance G	$6 \times S_n$
Distance N	$2 \times S_n$
Diameter active area B	$\varnothing 8 \text{ mm}$

Accessories

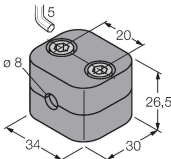
MW086945008

Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)



BSS-086901322

Mounting clamp for smooth and threaded barrel sensors; material: Polypropylene



MBS80
69479

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

