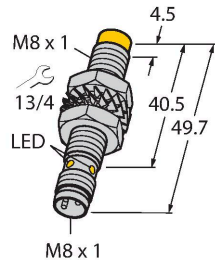


NI3-M08E-AP6X-V1131

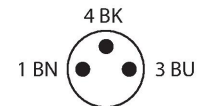
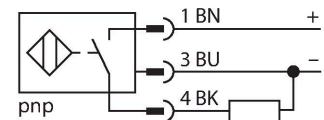
Inductive Sensor – With Increased Switching Distance



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



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_{rs}	≤ 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

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

Mechanical data	
Design	Threaded barrel, M8 x 1
Dimensions	49.7 mm
Housing material	Metal, CuZn, Nickel Plated
Active area material	Plastic, PP-GF20
Max. tightening torque of housing nut	7 Nm
Electrical connection	Connector, M8 x 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 the mounting of a sensor. The top diagram shows a side view of a sensor mounted on a plate, with dimension T indicating the distance from the sensor's center to the edge of the plate. The middle diagram shows a top view of two sensors mounted on a plate, with dimension G indicating the distance between the centers of the two sensors. The bottom diagram shows a perspective view of a sensor mounted on a plate, with dimensions N, S, D, W, and B indicating various mounting parameters: N is the distance from the sensor's center to the edge of the plate, S is the distance from the sensor's center to the edge of the plate, D is the distance from the sensor's center to the edge of the plate, W is the width of the plate, and B is the diameter of the active area.

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

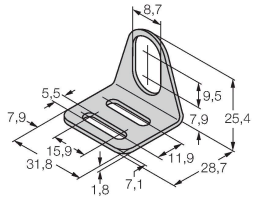
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Accessories

MW08

6945008

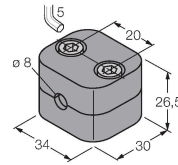
Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)



BSS-08

6901322

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



MBS80

69479

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

