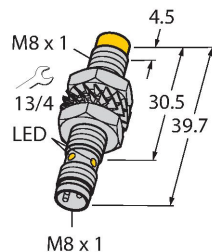


NI3-M08-VN6X-V1141

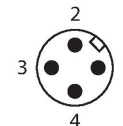
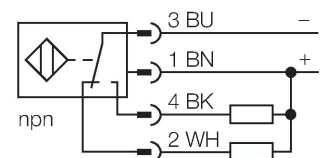
Inductive Sensor – With Increased Switching Distance



Features

- Threaded barrel, M8 x 1
- Nickel-plated brass
- Large sensing range
- DC 4-wire, 10...30 VDC
- Changeover contact, NPN output
- M12 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-M08-VN6X-V1141
ID	4602864
General data	
Mounting conditions	Non-flush
Secured operating distance	$\leq (0.81 \times S_n) \text{ mm}$
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
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_o	$\leq 200 \text{ mA}$
No-load current	$\leq 15 \text{ mA}$
Residual current	$\leq 0.1 \text{ mA}$
Isolation test voltage	0.5 kV
Short-circuit protection	yes/Cyclic
Voltage drop at I_o	$\leq 1.8 \text{ V}$
Wire break/reverse polarity protection	yes/Complete
Output function	4-wire, Complementary contact, NPN
Mechanical data	
Design	Threaded barrel, M8 x 1
Dimensions	39.7 mm
Housing material	Metal, CuZn, Nickel Plated
Active area material	Plastic, PP-GF20
Max. tightening torque of housing nut	7 Nm

Technical data

Electrical connection	Connector, M12 × 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

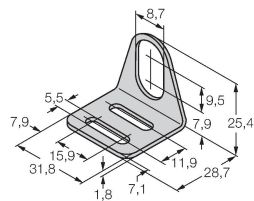
The image contains three technical diagrams illustrating the mounting of a sensor. The top diagram shows a side view of a sensor mounted on a plate, with dimension T indicating the distance from the mounting surface to the sensor's active area. The middle diagram shows a top view of two sensors mounted 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 dimension N indicating the distance from the mounting surface to the sensor's active area, dimension D indicating the distance from the mounting surface to the sensor's active area, and dimension W indicating the 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

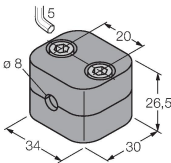
MW08	6945008
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Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)



BSS-08	6901322
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Mounting clamp for smooth and threaded barrel sensors; material: Polypropylene



MBS80

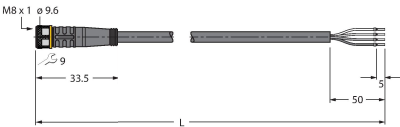
69479



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

Accessories

Dimension drawing	Type	ID	
	PKG4M-2/TEL	6625061	



Connection cable, M8 female connector, straight, 4-pin, cable length: 2 m, jacket material: PVC, black; cULus approval