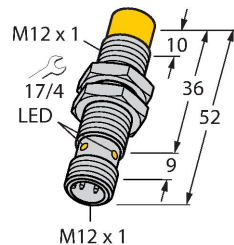


NI4-M12-AD6X-H1141

Inductive Sensor

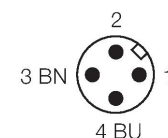
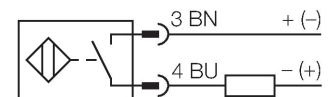


Technical data

Type	NI4-M12-AD6X-H1141
ID	100018017
General data	
Rated switching distance	4 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	1...15 %
Electrical data	
Operating voltage	10...30 VDC
Residual ripple	≤ 10 % U_{ss}
DC rated operational current	≤ 100 mA
Residual current	≤ 0.6 mA
Isolation test voltage	≤ 0.5 kV
Short-circuit protection	yes / Cyclic
Voltage drop at I_a	≤ 5 V
Wire breakage/Reverse polarity protection	Complete
Output function	NO contact, 2-wire
Smallest operating current	≥ 3 mA
Switching frequency	1 kHz
Mechanical data	
Design	Threaded barrel, M12 x 1
Dimensions	52 mm
Housing material	Metal, CuZn, Chrome-plated

Features

- M12 x 1 threaded barrel
- Chrome-plated brass
- DC 2-wire, 10...30 VDC
- NO contact
- M12 x 1 male connector



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, PA12-GF30
Max. tightening torque of housing nut	10 Nm
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

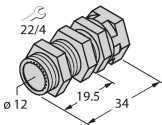
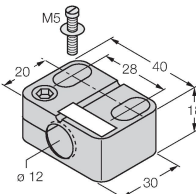
Mounting instructions/Description

The image contains three isometric diagrams illustrating different mounting configurations for a sensor. The sensor is represented as a grey rectangular block with a yellow cylindrical active area and a threaded mounting post.

- Top Diagram:** Shows a single sensor mounted on a vertical plate. The dimension **T** is indicated as the distance from the mounting post to the center of the active area.
- Middle Diagram:** Shows two sensors mounted on a vertical plate. The dimension **G** is indicated as the distance between the mounting posts of the two sensors.
- Bottom Diagram:** Shows a sensor mounted on a horizontal plate. The dimensions are indicated as follows:
 - W:** The width of the mounting plate.
 - D:** The distance from the edge of the mounting plate to the center of the active area.
 - S:** The distance from the center of the active area to the edge of the sensor block.
 - N:** The distance from the center of the active area to the edge of the mounting post.

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 12 mm

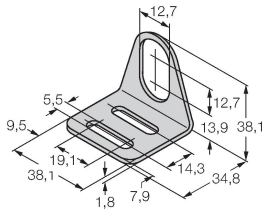
Accessories

QM-12	6945101	BST-12B	6947212
 Quick-mount bracket with dead-stop; material: Chrome-plated brass. Male thread M16 × 1. Note: The switching distance of the proximity switches may change when using quick-mount brackets.		 Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6	

MW-12

6945003

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



BSS-12

6901321

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

