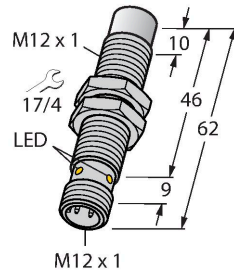


# NI8-MT12E-AN6X-H1141/S1589

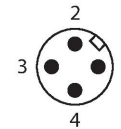
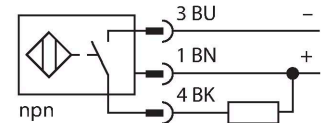
## Inductive Sensor – With Weldguard® coating



### Features

- Threaded barrel, M12 x 1
- Brass, PTFE-coated
- DC 3-wire, 10...30 VDC
- NO contact, NPN output
- M12 x 1 male connector

### Wiring diagram



### Technical data

Type	NI8-MT12E-AN6X-H1141/S1589
ID	4611397
Special version	S1589 Corresponds to: With weldguard coating
<b>General data</b>	
Rated switching distance	8 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	$\leq 2$ % of full scale
Hysteresis	3...15 %
<b>Electrical data</b>	
Operating voltage $U_B$	10...30 VDC
Ripple $U_{rs}$	$\leq 10$ % $U_{Bmax}$
DC rated operating current $I_B$	$\leq 200$ mA
No-load current	$\leq 15$ mA
Residual current	$\leq 0.1$ mA
Isolation test voltage	0.5 kV
Short-circuit protection	yes/Cyclic
Voltage drop at $I_B$	$\leq 1.8$ V
Wire break/reverse polarity protection	yes/Complete
Output function	3-wire, NO contact, NPN
Switching frequency	2 kHz

### Functional principle

Inductive sensors detect metal objects contactless and wear-free. For this purpose they use a high-frequency electromagnetic AC field that interacts with the target. The sensors hosting a ferrite core coil generate the AC field through an LC resonant circuit.

Technical data

Mechanical data	
Design	Threaded barrel, M12 x 1
Dimensions	62 mm
Housing material	Metal, CuZn, PTFE-coated
Active area material	Plastic, PA12-GF30, PTFE-coated
Max. tightening torque of housing nut	7 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 technical drawings of a sensor mounting. The top drawing is a side view showing a sensor (yellow cylinder) mounted on a plate (grey) with a dimension line labeled 'T' indicating the distance from the plate edge to the sensor center. The middle drawing is a top view showing two sensors mounted on a plate with a dimension line labeled 'G' indicating the distance between the sensor centers. The bottom drawing is a perspective view showing a sensor mounted on a plate with dimensions labeled: 'N' (distance from plate edge to sensor center), 'S' (distance from sensor center to plate edge), 'D' (distance from sensor center to plate edge), and 'W' (distance from plate edge to sensor center).

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

N18-MT12E-AN6X-H1141/S1589 | 02/21/2025 14-16 | technical changes reserved

## Accessories

BST-12B

6947212

Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6



QMT-12

6945106

Quick-mount bracket with dead-stop; material: brass, PTFE-coated; Male thread M16 × 1. Note: The switching distance of the proximity switches may change when using quick-mount brackets.



BSS-12

6901321

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

