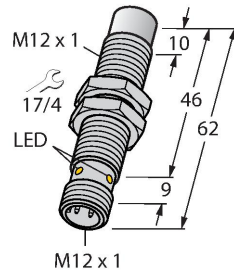


NI10U-MT12E-AP6X2-H1141

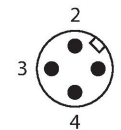
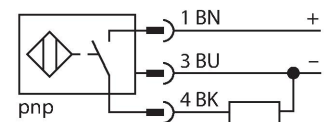
Inductive Sensor – With Extended Switching Distance



Features

- Threaded barrel, M12 x 1
- Brass, PTFE-coated
- Factor 1 for all metals
- Protection class IP68
- Resistant to magnetic fields
- Large switching distance
- Integrated protection against predamping
- Little metal-free spaces
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- M12 x 1 male connector

Wiring diagram



Functional principle

Inductive sensors are designed for wear-free and contactless detection of metal objects. uprox+ sensors have significant advantages due to their patented multi-coil system. They excel thanks to their optimum switching distances, maximum flexibility and operational reliability as well as efficient standardization.

Technical data

Type	NI10U-MT12E-AP6X2-H1141
ID	1634844
General data	
Rated switching distance	10 mm
Mounting conditions	Non-flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
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	≤ 200 mA
No-load current	≤ 25 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
DC field stability	300 mT
AC field stability	300 mT _{SS}
Insulation class	□
Switching frequency	1 kHz

Technical data

Mechanical data	
Design	Threaded barrel, M12 x 1
Dimensions	62 mm
Housing material	Metal, CuZn, PTFE-coated
Active area material	Plastic, LCP, PTFE-coated
Max. tightening torque of housing nut	7 Nm
Electrical connection	Connector, M12 x 1
Environmental conditions	
Ambient temperature	-30...+85 °C
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP68
MTTF	874 years acc. to SN 29500 (Ed. 99) 40 °C
Power-on indication	LED, Green
Switching state	LED, Yellow

Mounting instructions

Mounting instructions/Description

Distance D 48 mm

Distance W $3 \times S_n$

Distance T 45 mm

Distance S $1.5 \times B$

Distance G $6 \times S_n$

Distance N $2 \times S_n$

Diameter active area B $\varnothing 12 \text{ mm}$

All non-flush mountable uprox®+ threaded barrel sensors can be screwed to the upper edge of the barrel. In this mounting position, the sensor operates safely with a 20 % reduced switching distance.

When installed in an aperture plate a distance of $X = 50 \text{ mm}$ must be observed.

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

