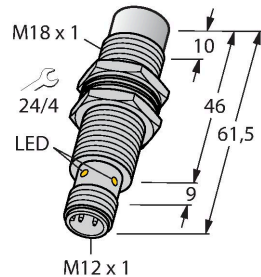


NI10U-MT18M-AD4X-H1144

Inductive Sensor

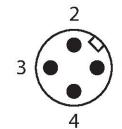
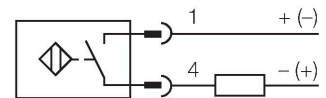


Features

- Threaded barrel, M18 x 1
- Brass, PTFE-coated
- Factor 1 for all metals
- Resistant to magnetic fields
- DC 2-wire, 10...65 VDC
- NO contact
- M12 x 1 male connector

Technical data

Type	NI10U-MT18M-AD4X-H1144
ID	4405071
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	$\leq \pm 10 \%$
	$\leq \pm 15 \%, \leq -25^\circ\text{C} \vee \geq +70^\circ\text{C}$
Hysteresis	3...20 %
Electrical data	
Operating voltage U_B	10...65 VDC
Ripple U_{ss}	$\leq 10 \%$ U_{Bmax}
DC rated operating current I_o	≤ 100 mA
Residual current	≤ 0.8 mA
Isolation test voltage	0.5 kV
Short-circuit protection	yes/Cyclic
Voltage drop at I_o	≤ 5 V
Wire break/reverse polarity protection	Complete
Output function	2-wire, NO contact, 2-wire
DC field stability	300 mT
AC field stability	300 mT _{SS}
Smallest operating current	≥ 3 mA
Switching frequency	0.01 kHz



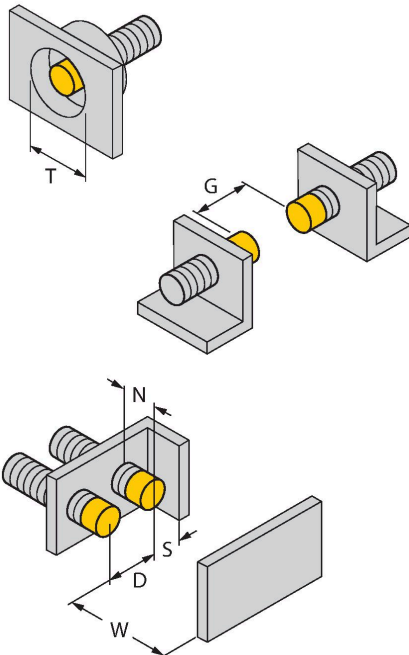
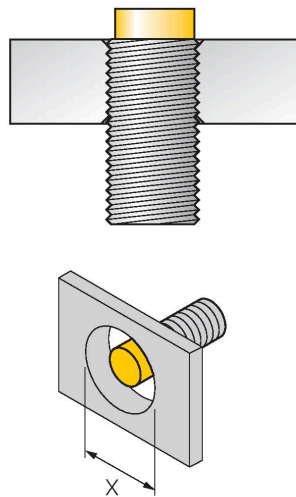
Functional principle

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

Mechanical data	
Design	Threaded barrel, M18 x 1
Dimensions	61.5 mm
Housing material	Metal, CuZn, PTFE-coated
Active area material	Plastic, LCP, PTFE-coated
Max. tightening torque of housing nut	15 Nm
Electrical connection	Connector, M12 x 1
Environmental conditions	
Ambient temperature	-25...+70 °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
Switching state	LED, Yellow

Mounting instructions

Mounting instructions/Description														
														
	<table> <tr> <td>Distance D</td><td>3 x B</td></tr> <tr> <td>Distance W</td><td>3 x Sn</td></tr> <tr> <td>Distance T</td><td>3 x B</td></tr> <tr> <td>Distance S</td><td>1.5 x B</td></tr> <tr> <td>Distance G</td><td>6 x Sn</td></tr> <tr> <td>Distance N</td><td>2 x Sn</td></tr> <tr> <td>Diameter active area B</td><td>Ø 18 mm</td></tr> </table>	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
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 18 mm													
<p>All non-flush mountable uprox®+ threaded barrel sensors can be screwed to the upper edge of the barrel. Thus safe operation is guaranteed with a reduced switching distance of max. 20 %.</p>														
<p>When installed in an aperture plate a distance of X = 70 mm must be observed.</p>														
<p>Isolating switching amplifiers can be applied because uprox®+ 2-wire DC sensors work with 8 VDC low operating voltage (limited load current).</p>														
<p>If the sensors are operated with the Turck remote I/O fieldbus system BL20, wire-break</p>														

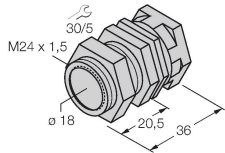
and short-circuit events are immediately detected. For this purpose connected the sensor to the BL20-4DI-NAMUR slice.

Accessories

QMT-18

6945104

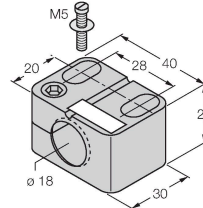
Quick-mount bracket with dead-stop; material: brass, PTFE-coated; Male thread M24 × 1.5. Note: The switching distance of the proximity switches may change when using quick-mount brackets.



BST-18B

6947214

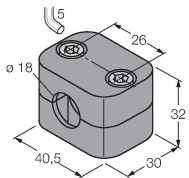
Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6



BSS-18

6901320

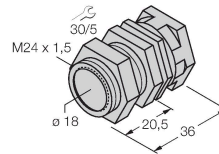
Mounting clamp for smooth and threaded barrel sensors; material: Polypropylene



QM-18

6945102

Quick-mount bracket with dead-stop; material: Chrome-plated brass. Male thread M24 × 1.5. Note: The switching distance of the proximity switches may change when using quick-mount brackets.



BL20-4DI-NAMUR

6827212

4 digital inputs acc. to EN 60947-5-6
For NAMUR sensors, de-energized contacts or uprox®+ 2-wire DC sensors.

