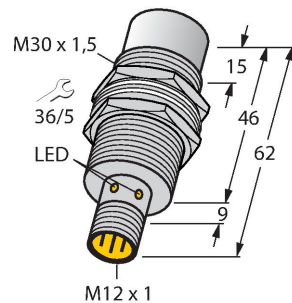


NI30U-MT30-AN6X-H1141

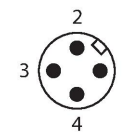
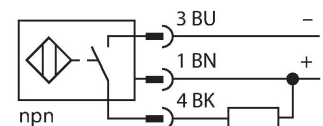
Inductive Sensor – With Extended Switching Distance



Features

- Threaded barrel, M30 x 1.5
- 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, NPN 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	NI30U-MT30-AN6X-H1141
ID	1644637
General data	
Rated switching distance	30 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	10...30 VDC
Residual ripple	$\leq 10 \%$ U_{ss}
DC rated operational current	≤ 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 breakage/Reverse polarity protection	yes / Complete
Output function	3-wire, NO contact, NPN
DC field stability	300 mT
AC field stability	300 mT _{ss}
Insulation class	□
Switching frequency	1 kHz
Mechanical data	
Design	Threaded barrel, M30 x 1.5

Technical data

Dimensions	62 mm
Housing material	Metal, CuZn, PTFE-coated
Active area material	Plastic, LCP, PTFE-coated
Max. tightening torque of housing nut	75 Nm
Electrical connection	Connector, M12 × 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
Switching state	LED, Yellow

Mounting instructions

Mounting instructions/Description

Technical diagrams illustrating mounting configurations for the sensor:

- Top left: Side view of a sensor mounted on a plate, showing dimension T .
- Middle left: Two sensors mounted on a plate, showing dimension G .
- Bottom left: Two sensors mounted on a plate, showing dimensions N , S , D , and W .

Technical diagrams illustrating mounting configurations for the sensor:

- Top: Front view of a sensor mounted on a plate.
- Bottom: Side view of a sensor mounted on a plate, showing dimension X .

Distance D	135 mm
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Distance W	$3 \times S_n$
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Distance T	$3 \times B$
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Distance S	$1.5 \times B$
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Distance G	$6 \times S_n$
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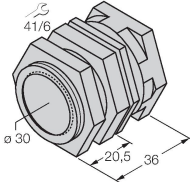
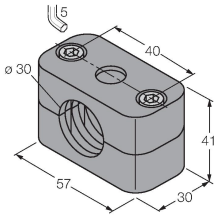
Distance N	$2 \times S_n$
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Diameter active area B	$\varnothing 30 \text{ mm}$
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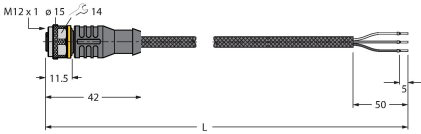
All non-flush mountable uprox®+ threaded barrel sensors can be screwed to the upper edge of the barrel. In this mounting position, the sensor operates safely with a 20 % reduced switching distance.

When installed in an aperture plate, a distance of $X = 140 \text{ mm}$ must be observed.

Accessories

BST-30B	6947216	Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6	QMT-30	6945105	Quick-mount bracket with dead-stop; material: brass, PTFE-coated; Male thread M36 × 1.5. Note: The switching distance of the proximity switches may change when using quick-mount brackets.
					
BSS-30	6901319	Mounting clamp for smooth and threaded barrel sensors; material: Polypropylene			
					

Accessories

Dimension drawing	Type	ID	
	RKC4T-2/TXL1001	6630249	Connection cable, M12 female connector, straight, 3-pin, cable length: 2 m, protective jacket material: aramid fibers, yellow; temperature peak: 200 °C