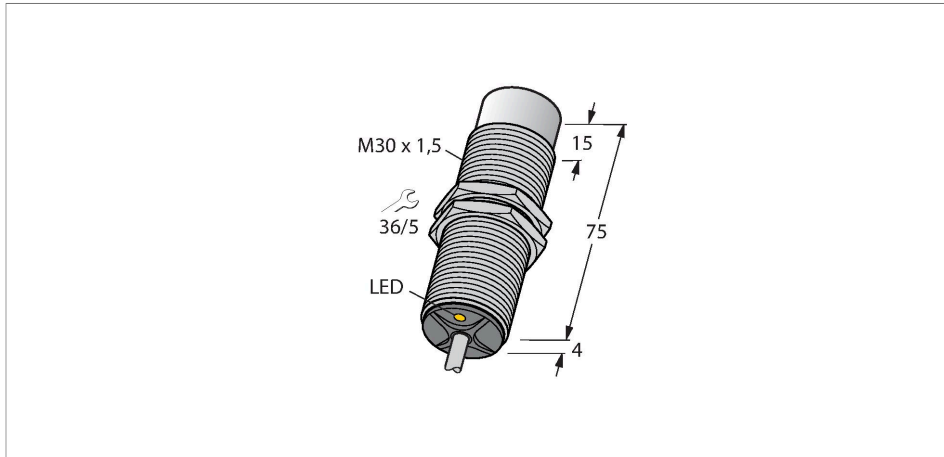


NI30U-MT30E-AP6X

Inductive Sensor – With Extended Switching Distance



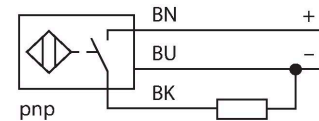
Features

- Threaded barrel, M30 x 1.5
- Long version
- 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
- Cable connection

Technical data

Type	NI30U-MT30E-AP6X
ID	1646619
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, PNP
DC field stability	300 mT
AC field stability	300 mT _{SS}
Insulation class	□
Switching frequency	1 kHz

Wiring diagram



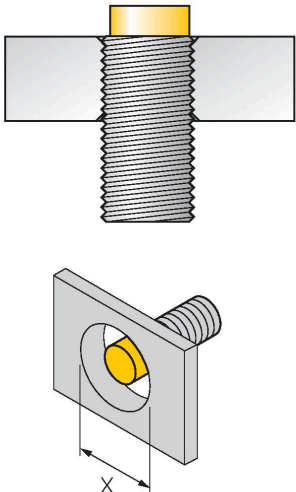
Functional principle

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

Mechanical data	
Design	Threaded barrel, M30 x 1.5
Dimensions	74 mm
Housing material	Metal, CuZn, PTFE-coated
Active area material	Plastic, LCP, PTFE-coated
End cap	Plastic, EPTR
Max. tightening torque of housing nut	75 Nm
Electrical connection	Cable
Cable quality	Ø 5.2 mm, LifYY, PVC
Core cross-section	3 x 0.34 mm ²
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

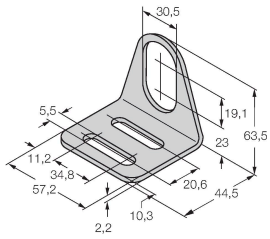
Mounting instructions

Mounting instructions/Description													
	<table border="1"> <tbody> <tr> <td>Distance D</td> <td>3 × B</td> </tr> <tr> <td>Distance W</td> <td>3 × Sn</td> </tr> <tr> <td>Distance T</td> <td>3 × B</td> </tr> <tr> <td>Distance S</td> <td>1.5 × B</td> </tr> <tr> <td>Distance G</td> <td>6 × Sn</td> </tr> <tr> <td>Diameter active area B</td> <td>Ø 30 mm</td> </tr> </tbody> </table> <p>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.</p> <p>When installed in an aperture plate, a distance of X = 140 mm must be observed.</p>	Distance D	3 × B	Distance W	3 × Sn	Distance T	3 × B	Distance S	1.5 × B	Distance G	6 × Sn	Diameter active area B	Ø 30 mm
Distance D	3 × B												
Distance W	3 × Sn												
Distance T	3 × B												
Distance S	1.5 × B												
Distance G	6 × Sn												
Diameter active area B	Ø 30 mm												

Accessories

MW-30

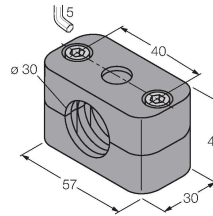
6945005



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

BSS-30

6901319



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