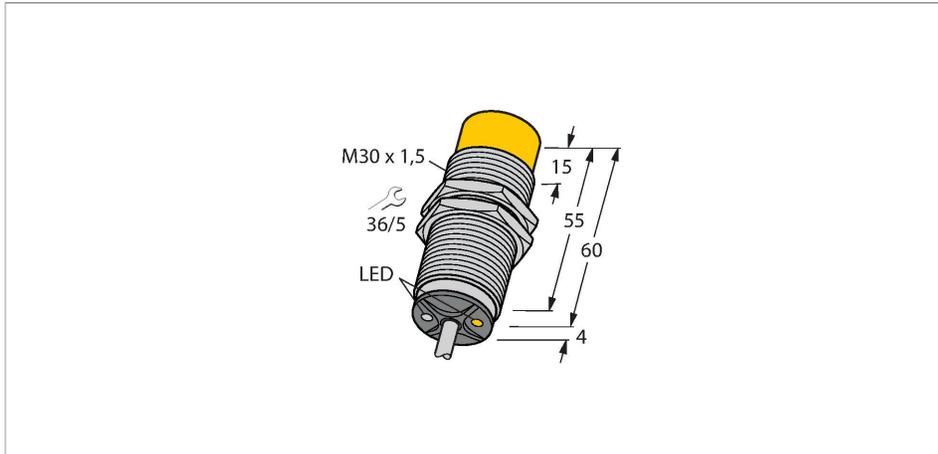


# NI20U-M30-ADZ30X2 Inductive Sensor



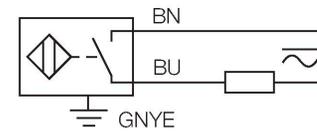
## Features

- M30 × 1.5 threaded tube
- Chrome-plated brass
- Factor 1 for all metals
- Protection class IP68
- Resistant to magnetic fields
- Extended temperature range
- High switching frequency
- AC 2-wire, 20...250 VAC
- DC 2-wire, 10...300 VDC
- NO contact
- Cable connection

## Technical data

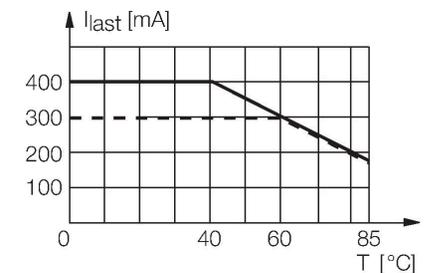
Type	NI20U-M30-ADZ30X2
ID	4282810
<b>General data</b>	
Rated switching distance	20 mm
Mounting conditions	Non-flush
Secured operating distance	≤ (0.81 × S <sub>n</sub> ) mm
Repeat accuracy	≤ 2 % of full scale
Temperature drift	≤ ±10 %
	≤ ± 15 %, ≤ -25 °C v ≥ +70 °C
Hysteresis	3...15 %
<b>Electrical data</b>	
Operating voltage U <sub>B</sub>	20...250 VAC
Operating voltage U <sub>B</sub>	10...300 VDC
AC rated operational current	≤ 400 mA
DC rated operating current I <sub>o</sub>	≤ 300 mA
Frequency	≥ 50...≤ 60 Hz
Residual current	≤ 1.7 mA
Isolation test voltage	1.5 kV
Surge current	≤ 3 A (≤ 20 ms max. 5 Hz)
Short-circuit protection	yes/Latching
Voltage drop at I <sub>o</sub>	≤ 6 V
Wire break/reverse polarity protection	yes/Complete
Output function	2-wire, NO contact, 2-wire
DC field stability	300 mT

## Wiring diagram



## Functional principle

Inductive sensors are designed for wear-free and contactless detection of metal objects. Approx Factor 1 sensors have significant advantages due to their patented ferrite-coreless multi-coil system. They detect all metals at the same large switching distance and are resistant to magnetic fields.

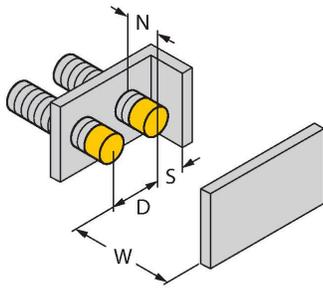
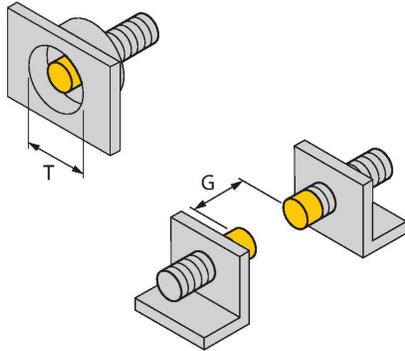


## Technical data

AC field stability	300 mT <sub>ss</sub>
Smallest operating current	≥ 3 mA
Switching frequency	0.01 kHz
<b>Mechanical data</b>	
Design	Threaded barrel, M30 x 1.5
Dimensions	64 mm
Housing material	Metal, CuZn, Chrome-plated
Active area material	Plastic, PBT
End cap	Plastic, EPTR
Max. tightening torque of housing nut	75 Nm
Electrical connection	Cable
Cable quality	Ø 5.2 mm, LifYY, PVC, 2 m
Core cross-section	3 x 0.5 mm <sup>2</sup>
<b>Environmental conditions</b>	
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



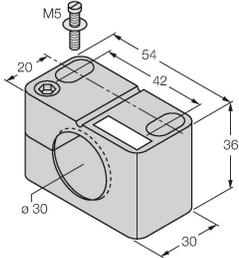
Distance D	3 x B
Distance W	3 x Sn
Distance T	3 x B
Distance S	1.5 x B
Distance G	6 x Sn
Distance N	2 x Sn
Diameter active area B	Ø 30 mm

## Accessories

### BST-30B

6947216

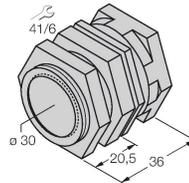
Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6



### QM-30

6945103

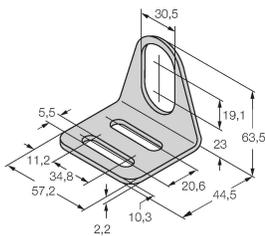
Quick-mount bracket with dead-stop; material: Chrome-plated brass. Male thread M36 x 1.5. Note: The switching distance of the proximity switches may change when using quick-mount brackets.



### MW30

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

