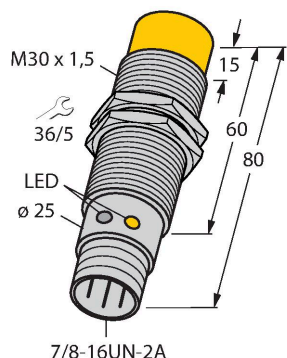


NI20U-G30-ADZ30X2-B1131

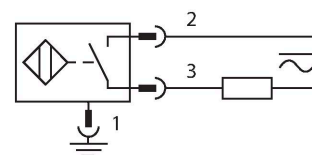
Inductive Sensor



Features

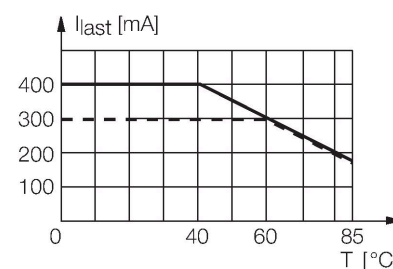
- Threaded barrel, M30 x 1.5
- Chrome-plated brass
- Factor 1 for all metals
- Protection class IP68
- Resistant to magnetic fields
- Extended temperature range
- High switching frequency
- AC 2-wire, 20...250 VAC
- DC 2-wire, 10...300 VDC
- NO contact
- 7/8" male connector

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

Type	NI20U-G30-ADZ30X2-B1131
ID	4281812
General data	
Rated switching distance	20 mm
Mounting conditions	Non-flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Repeat accuracy	$\leq 2 \%$ of full scale
Temperature drift	$\leq \pm 10 \%$
	$\leq \pm 15 \%, -25 \text{ °C} \leq +70 \text{ °C}$
Hysteresis	3...15 %
Electrical data	
Operating voltage U_B	20...250 VAC
Operating voltage U_B	10...300 VDC
AC rated operational current	≤ 400 mA
DC rated operating current I_o	≤ 300 mA
Frequency	$\geq 50 \dots \leq 60$ 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_o	≤ 6 V
Wire break/reverse polarity protection	yes/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

Technical data

Mechanical data	
Design	Threaded barrel, M30 x 1.5
Dimensions	80 mm
Housing material	Metal, CuZn, Chrome-plated
Active area material	Plastic, PBT
Max. tightening torque of housing nut	75 Nm
Electrical connection	Connector, 7/8"
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

The technical drawing illustrates the mounting of a threaded barrel. It consists of three views:

- Side View (Top Left):** Shows a cross-section of the barrel with a central hole. The dimension **T** is indicated as the thickness of the barrel.
- Top View (Middle):** Shows the barrel from above, with dimension **G** indicating the distance from the center of the barrel to the center of the mounting plate.
- Front View (Bottom):** Shows the barrel from the front, with dimensions **N**, **S**, **D**, and **W** indicating various distances and widths. **N** is the distance from the center of the barrel to the center of the mounting plate. **S** is the distance from the center of the barrel to the center of the mounting plate. **D** is the distance from the center of the barrel to the center of the mounting plate. **W** is the width of the mounting plate.

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

