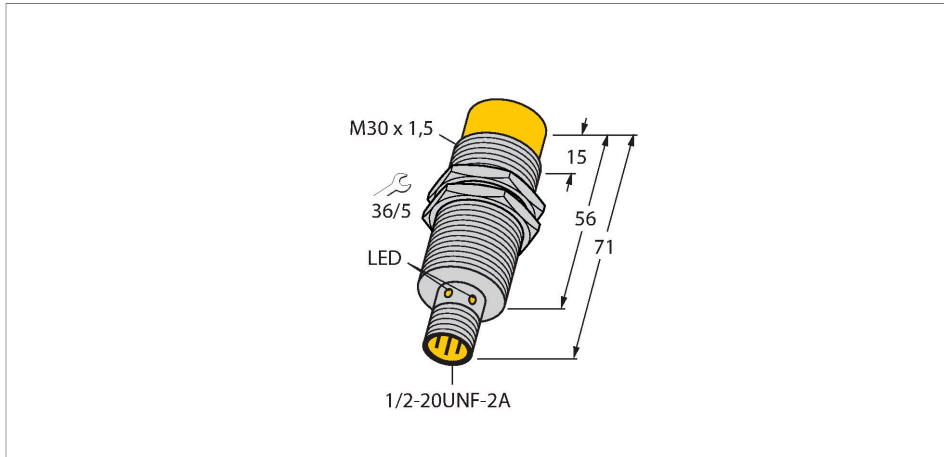


# NI20U-GT30-RDZ30X2-B3131

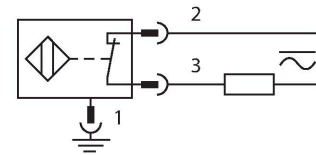
## Inductive Sensor



### Features

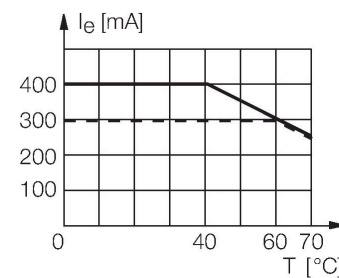
- Threaded barrel, M30 x 1.5
- Brass, PTFE-coated
- Factor 1 for all metals
- Protection class IP68
- Resistant to magnetic fields
- Extended temperature range
- High switching frequency
- AC 2-wire, 20...250 VAC
- DC 2-wire, 10...300 VDC
- NC contact
- 1/2" male connector

### 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

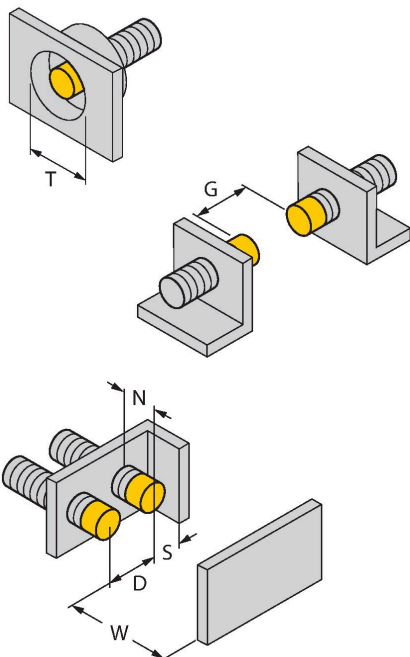
Type	NI20U-GT30-RDZ30X2-B3131
ID	4282813
<b>General data</b>	
Rated switching distance	20 mm
Mounting conditions	Non-flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Repeat accuracy	$\leq 2\%$ of full scale
	$\leq \pm 15\%$ , $\leq -25\text{ °C}$ v $\geq +70\text{ °C}$
Hysteresis	3...15 %
<b>Electrical data</b>	
Operating voltage	20...250 VAC
Operating voltage	10...300 VDC
AC rated operational current	$\leq 400$ mA
DC rated operational current	$\leq 300$ mA
Frequency	$\geq 50... \leq 60$ Hz
Residual current	$\leq 1.7$ mA
Isolation test voltage	$\leq 1.5$ kV
Surge current	$\leq 3$ A ( $\leq 20$ ms max. 5 Hz)
Short-circuit protection	yes / Latching
Voltage drop at I <sub>o</sub>	$\leq 6$ V
Wire breakage/Reverse polarity protection	yes / Complete
Output function	2-wire, NC contact, 2-wire
DC field stability	300 mT
AC field stability	300 mT <sub>ss</sub>

## Technical data

Smallest operating current	≥ 3 mA
Switching frequency	0.01 kHz
<b>Mechanical data</b>	
Design	Threaded barrel, M30 x 1.5
Dimensions	71 mm
Housing material	Metal, CuZn, PTFE-coated
Active area material	Plastic, PBT-GF30, PTFE-coated
Max. tightening torque of housing nut	75 Nm
Electrical connection	Connector, 1/2"
<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



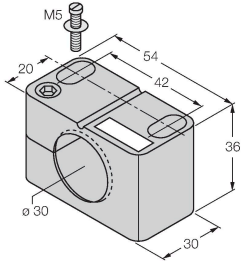
Distance D	3 x B
Distance W	3 x Sn
Distance T	3 x B
Distance S	1.5 x B
Distance G	6 x Sn
Distance N	2 x Sn
Diameter active area B	Ø 30 mm

## Accessories

BST-30B

6947216

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



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

