

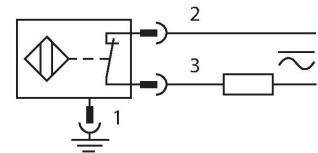
NI12U-GT18-RDZ30X2-B3331 Inductive Sensor



Features

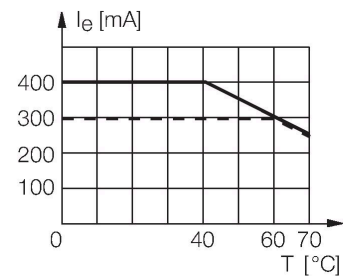
- Threaded barrel, M18 x 1
- Brass, PTFE-coated
- Factor 1 for all metals
- Protection class IP68
- Resistant to magnetic fields
- Extended temperature range
- High switching frequency
- AC 2-wire, 20...250 VDC
- DC 2-wire, 10...300 VDC
- NC contact
- 1/2" male connector

Wiring diagram



Functional principle

Inductive sensors are designed for wear-free and contactless detection of metal objects. uprox 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.



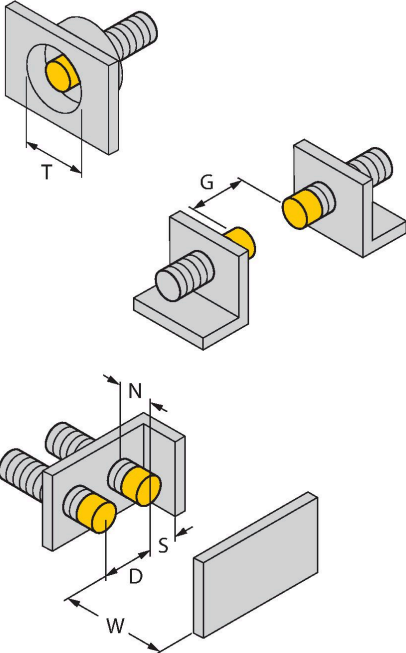
Technical data

Type	NI12U-GT18-RDZ30X2-B3331
ID no.	4281522
Rated switching distance	12 mm
Mounting conditions	Non-flush
Secured operating distance	$\leq (0.81 \times S_n) \text{ mm}$
Repeat accuracy	$\leq 2 \%$ of full scale
Temperature drift	$\leq \pm 10 \%$
	$\leq \pm 15 \%, \leq -25 \text{ °C v } \geq +70 \text{ °C}$
Hysteresis	3...15 %
Ambient temperature	-30...+85 °C
Operating voltage	20...250 VAC
Operating voltage	10...300 VDC
AC rated operational current	$\leq 400 \text{ mA}$
DC rated operational current	$\leq 300 \text{ mA}$
Frequency	$\geq 50 \dots \leq 60 \text{ Hz}$
Residual current	$\leq 1.7 \text{ mA}$
Isolation test voltage	$\leq 1.5 \text{ kV}$
Surge current	$\leq 3 \text{ A } (\leq 20 \text{ ms max. } 5 \text{ Hz})$
Short-circuit protection	yes / Latching
Voltage drop at I _e	$\leq 6 \text{ V}$
Wire breakage/Reverse polarity protection	yes / Complete
Output function	2-wire, NC contact, 2-wire
Smallest operating current	$\geq 3 \text{ mA}$
Insulation class	□

Technical data

Switching frequency	0.01 kHz
Design	Threaded barrel, M18 × 1
Dimensions	70 mm
Housing material	Metal, CuZn, PTFE-coated
Active area material	Plastic, PA12-GF30, PTFE-coated
Max. tightening torque of housing nut	25 Nm
Electrical connection	Connector, 1/2"
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

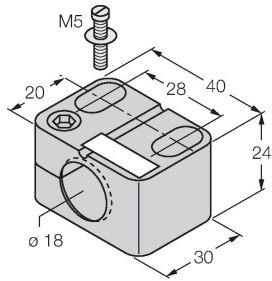
Mounting instructions

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 18 mm

Accessories

BST-18B

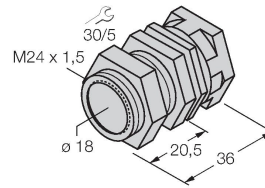
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Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6

QMT-18

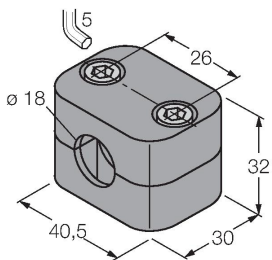
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Quick-mount bracket with dead-stop; material: brass, PTFE-coated; Male thread M24 × 1.5. Note: The switching distance of the proximity switches may change when using quick-mount brackets.

BSS-18

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