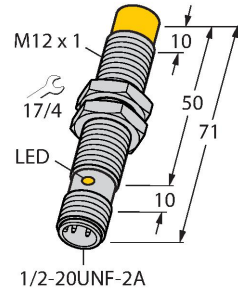


NI8U-G12-ADZ32X-B3131

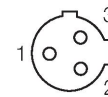
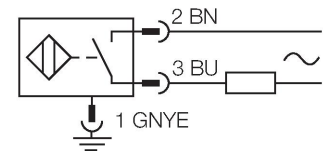
Inductive Sensor



Features

- Threaded barrel, M12 x 1
- 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
- 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.

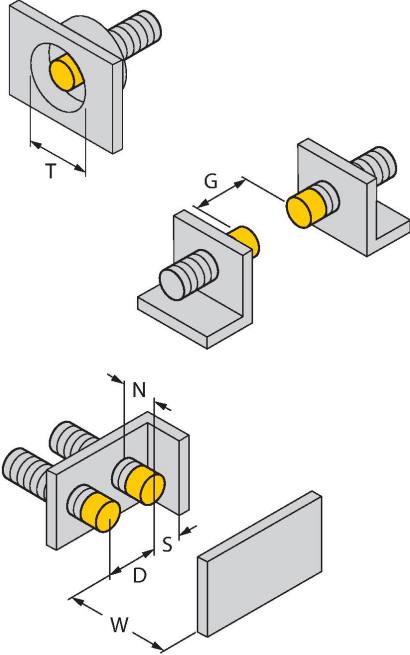
Technical data

Type	NI8U-G12-ADZ32X-B3131
ID	4281105
General data	
Rated switching distance	8 mm
Mounting conditions	Non-flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Repeat accuracy	$\leq 2 \%$ of full scale
Temperature drift	$\leq \pm 10 \%$
	$\leq \pm 15 \%, \leq -25 \text{ °C} \vee \geq +70 \text{ °C}$
Hysteresis	3...15 %
Electrical data	
Operating voltage U_B	20...250 VAC
Operating voltage U_B	10...300 VDC
AC rated operational current	$\leq 100 \text{ mA}$
DC rated operating current I_o	$\leq 100 \text{ mA}$
Frequency	$\geq 50 \dots \leq 60 \text{ Hz}$
Residual current	$\leq 1.7 \text{ mA}$
Isolation test voltage	1.5 kV
Surge current	$\leq 1 \text{ A} (\leq 10 \text{ ms max. } 5 \text{ Hz})$
Short-circuit protection	yes/Latching
Voltage drop at I_o	$\leq 6 \text{ V}$
Wire break/reverse polarity protection	yes/Complete
Output function	2-wire, NO contact, 2-wire
DC field stability	300 mT

Technical data

AC field stability	300 mT _{ss}
Smallest operating current	≥ 3 mA
Switching frequency	0.01 kHz
Mechanical data	
Design	Threaded barrel, M12 x 1
Dimensions	71 mm
Housing material	Metal, CuZn, Chrome-plated
Active area material	Plastic, PBT-GF30
Max. tightening torque of housing nut	10 Nm
Electrical connection	Connector, 1/2"
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, Red

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 12 mm

NI8U-G12-ADZ32X-B3131 | 02/21/2025 13-24 | technical changes reserved

Accessories

QM-12

6945101

Quick-mount bracket with dead-stop; material: Chrome-plated brass. Male thread M16 × 1. Note: The switching distance of the proximity switches may change when using quick-mount brackets.



BST-12B

6947212

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



MW12

6945003

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



BSS-12

6901321

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

