

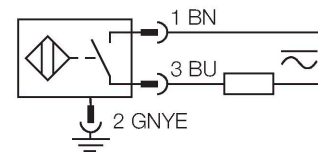
# NI4-G12-AZ31X-B3131

## Inductive sensor

### Features

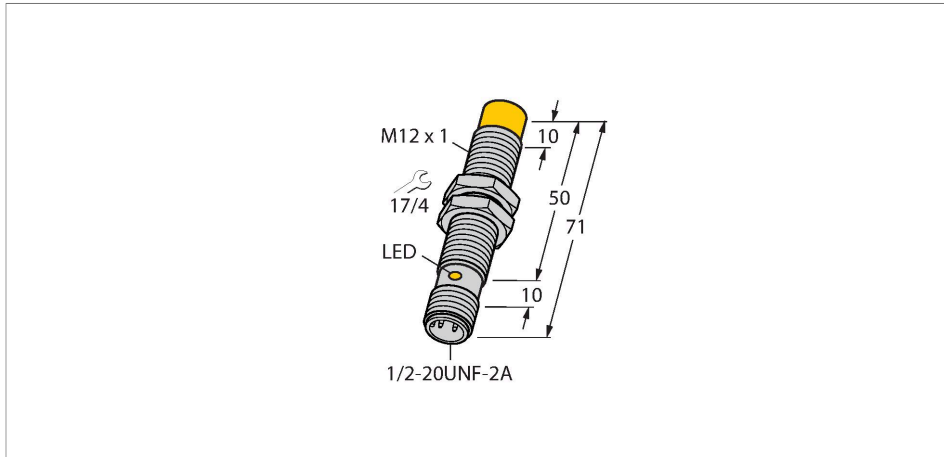
- Threaded barrel, M12 x 1
- Chrome-plated brass
- AC 2-wire, 20...250 VDC
- DC 2-wire, 10...300 VDC
- NO contact
- 1/2" male connector

### Wiring diagram



### Functional principle

Inductive sensors detect metal objects contactless and wear-free. For this, they use a high-frequency electromagnetic AC field that interacts with the target. Inductive sensors generate this field via an RLC circuit with a ferrite coil.



### Technical data

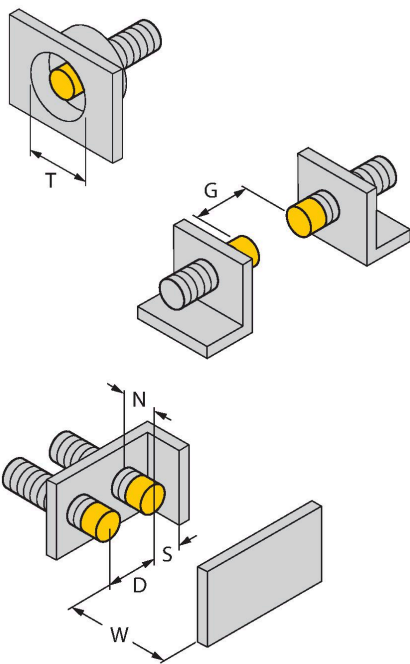
<b>Type</b>	NI4-G12-AZ31X-B3131
Ident. no.	13504
Rated switching distance	4 mm
Mounting conditions	Non-flush
Secured operating distance	≤ (0,81 x Sn) mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeat accuracy	≤ 2 % of full scale
Temperature drift	≤ ± 10 %
Hysteresis	3...15 %
Ambient temperature	-25...+70 °C
<b>Operating voltage</b>	20...250 VAC
Operating voltage	10...300 VDC
AC rated operational current	≤ 100 mA
DC rated operational current	≤ 100 mA
Frequency	≥ 50...≤ 60 Hz
Residual current	≤ 1.7 mA
Isolation test voltage	≤ 1.5 kV
Surge current	≤ 1 A (≤ 10 ms max. 5 Hz)
Voltage drop at	≤ 6 V
Output function	2-wire, NO contact
Smallest operating current	≥ 3 mA
Switching frequency	0.02 kHz
<b>Design</b>	Threaded barrel, M12 x 1
Dimensions	71 mm

## Technical data

Housing material	Metal, CuZn, Chrome-plated
Active area material	Plastic, PA12-GF30
Max. tightening torque housing nut	10 Nm
Electrical connection	Connector, 1/2"
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
MTTF	2283 years acc. to SN 29500 (Ed. 99) 40 °C
Switching state	LED, Red

## Mounting instructions

### Mounting instructions/Description

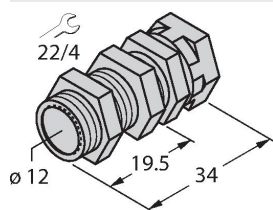


Distance D	3 x B
Distance T	3 x B
Distance N	2 x Sn
Diameter active area B	Ø 12 mm

## Accessories

### QM-12

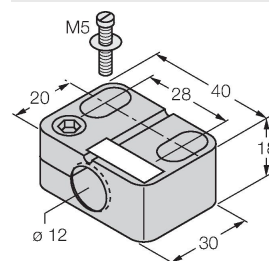
6945101



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

### BST-12B

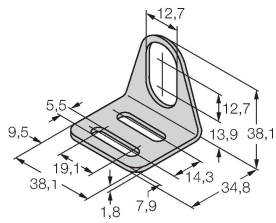
6947212



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

## MW12

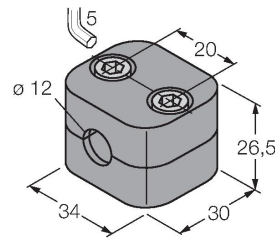
## 6945003



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