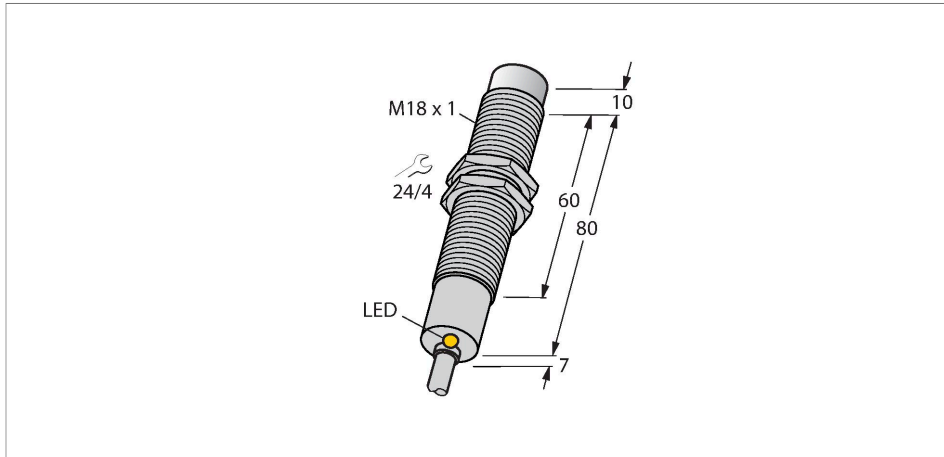


# NI8-M18-AZ3X/S120

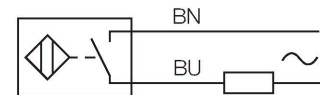
## Inductive Sensor – With Increased Temperature Range



### Features

- Threaded barrel, M18 x 1
- Chrome-plated brass
- S120 = Temperatures up to +120 °C
- AC 2-wire, 20...250 VAC
- NO contact
- Cable connection

### Wiring diagram

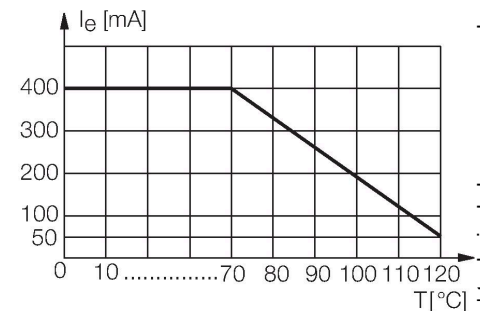


### Technical data

Type	NI8-M18-AZ3X/S120
ID no.	4310530
Special version	S120 corresponds to: Maximum ambient temperature = 120 °C
Rated switching distance	8 mm
Mounting conditions	Non-flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeat accuracy	$\leq 2$ % of full scale
Temperature drift	$\leq \pm 10$ % $\leq \pm 20$ %, $\geq +70$ °C
Hysteresis	3...15 %
Ambient temperature	-25...+120 °C
Operating voltage	20...250 VAC
AC rated operational current	$\leq 400$ mA
Frequency	$\geq 50$ ... $\leq 60$ Hz
Residual current	$\leq 1.7$ mA
Isolation test voltage	$\leq 1.5$ kV
Surge current	$\leq 8$ A ( $\leq 10$ ms max. 5 Hz)
Voltage drop at $I_e$	$\leq 6$ V
Output function	2-wire, NO contact
Smallest operating current	$\geq 3$ mA
Switching frequency	0.02 kHz

### Functional principle

Inductive sensors detect metal objects contactless and wear-free. For this purpose they use a high-frequency electromagnetic AC field that interacts with the target. The sensors hosting a ferrite core coil generate the AC field through an LC resonant circuit. Special versions are available for ambient temperatures between -60°C and +250°C.



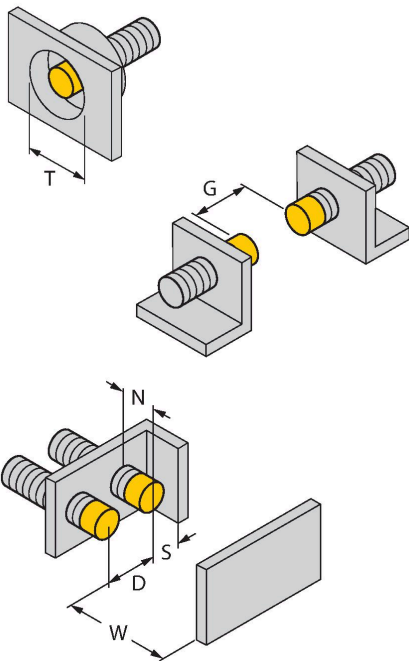
NI8-M18-AZ3X/S120 | 01/29/2021 23-56 | technical changes reserved

## Technical data

Design	Threaded barrel, M18 × 1
Dimensions	97 mm
Housing material	Metal, CuZn, Chrome-plated
Active area material	Plastic, PA12-GF30
End cap	Plastic, EPTR
Max. tightening torque of housing nut	25 Nm
Electrical connection	Cable
Cable quality	Ø 6 mm, SiHSi, Silicone, 2 m
Core cross-section	3 x 0.75 mm <sup>2</sup>
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
Switching state	LED, Yellow

## Mounting instructions

### Mounting instructions/Description

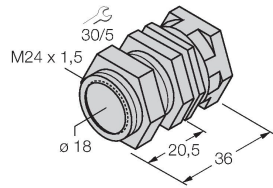


Distance D	3 x B
Distance W	3 x Sn
Distance T	3 x B
Distance S	1.5 x B
Distance G	6 x Sn
Distance N	2 x Sn
Diameter active area B	Ø 18 mm

## Accessories

QM-18

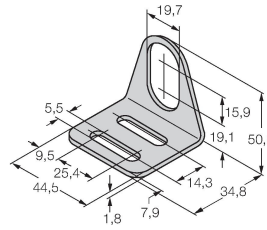
6945102



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

MW-18

6945004



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