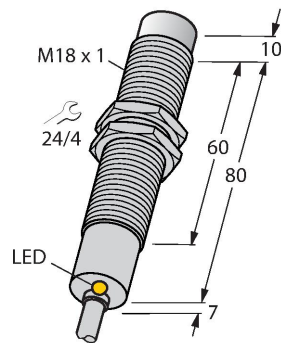


NI8-M18-AP6X/S120

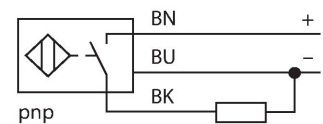
Inductive sensor – With extended temperature range



Features

- Threaded barrel, M18 x 1
- Chrome-plated brass
- Temperatures up to +120 °C
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- Cable connection

Wiring diagram

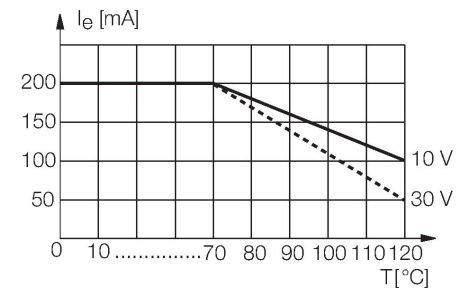


Technical data

Type	NI8-M18-AP6X/S120
Ident. no.	4611230
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	$\leq \pm 10\%$
	$\leq \pm 20\%$, $\geq +70\text{ °C}$
Hysteresis	3...15 %
Ambient temperature	-25...+120 °C
Operating voltage	10...30 VDC
Residual ripple	$\leq 10\%$ U_{ss}
DC rated operational current	≤ 200 mA
No-load current	≤ 15 mA
Residual current	≤ 0.1 mA
Isolation test voltage	≤ 0.5 kV
Short-circuit protection	yes / Cyclic
Voltage drop at I_e	≤ 1.8 V
Wire breakage/Reverse polarity protection	yes / Complete
Output function	3-wire, NO contact, PNP
Switching frequency	0.1 kHz
Design	Threaded barrel, M18 x 1
Dimensions	97 mm
Housing material	Metal, CuZn, Chrome-plated
Active area material	Plastic, PA12-GF30
End cap	Plastic, EPTR

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.



Technical data

Max. tightening torque housing nut	25 Nm
Electrical connection	Cable
Cable quality	Ø 5.2 mm, SiHSi, Silicone, 2 m
Core cross-section	3 x 0.5 mm ²
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
Switching state	LED, Yellow

Mounting instructions

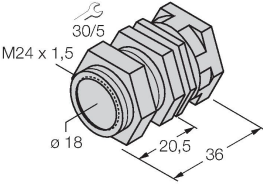
Mounting instructions/Description

The image contains three isometric diagrams illustrating the mounting of a sensor on a plate. The top diagram shows a single sensor mounted on a plate with dimension T. The middle diagram shows two sensors mounted on a plate with dimensions G and S. The bottom diagram shows a sensor mounted on a plate with dimensions N, D, S, and W.

Distance D	$3 \times B$
Distance W	$3 \times S_n$
Distance T	$3 \times B$
Distance S	$1.5 \times B$
Distance G	$6 \times S_n$
Distance N	$2 \times S_n$
Diameter active area B	$\varnothing 18 \text{ mm}$

Accessories

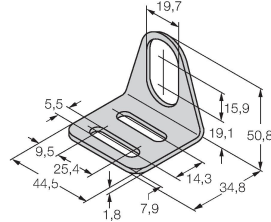
QM-18



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.

MW18



6945004

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