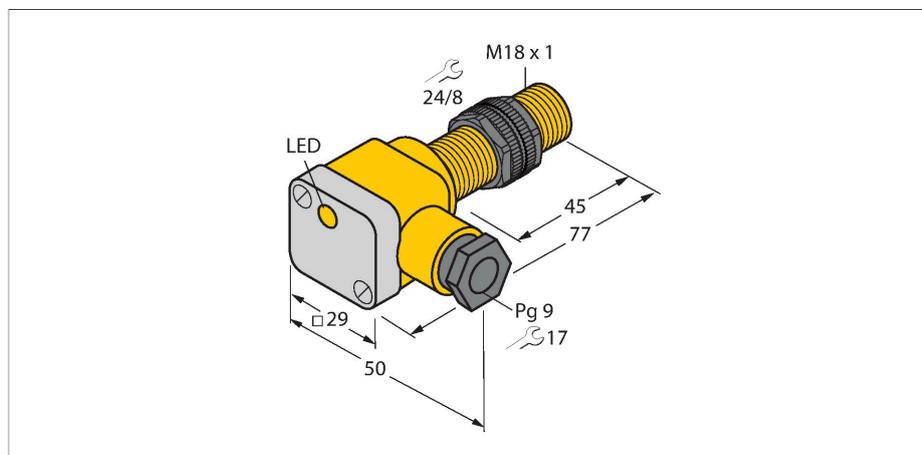


# NI10-P18SK-AZ3X

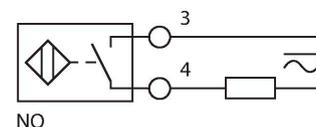
## Inductive Sensor



### Features

- Threaded barrel, M18 x 1
- Plastic, PA12-GF30-V0
- AC 2-wire, 20...250 VAC
- DC 2-wire, 10...300 VDC
- NO contact
- Terminal chamber

### Wiring diagram

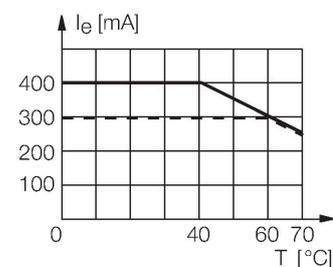


### Technical data

Type	NI10-P18SK-AZ3X
ID	43511
<b>General data</b>	
Rated switching distance	10 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	$\leq \pm 10$ %
Hysteresis	3...15 %
<b>Electrical data</b>	
Operating voltage	20...250 VAC
Operating voltage	10...300 VDC
AC rated operational current	$\leq 400$ mA
DC rated operational current	$\leq 300$ 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, 2-wire
Smallest operating current	$\geq 3$ mA
Switching frequency	0.02 kHz
<b>Mechanical data</b>	
Design	Threaded barrel, M18 x 1
Dimensions	77 mm

### 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.

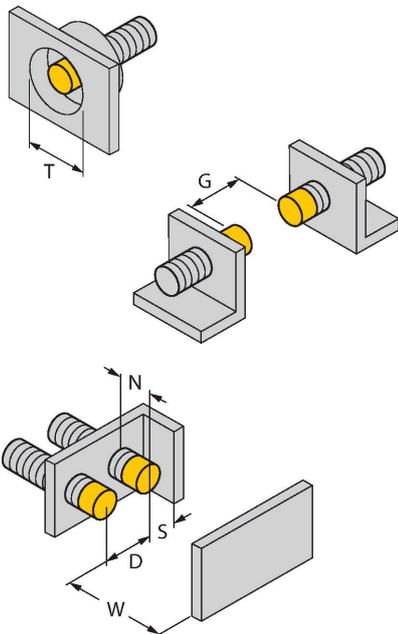


## Technical data

Housing material	Plastic, PA12-GF30
Terminal chamber cover material	plastic, Ultem
Terminal chamber housing material	plastic, PA12-GF30
Active area material	Plastic, PA12-GF30
Max. tightening torque of housing nut	2 Nm
Electrical connection	Terminal chamber
Clamping ability	$\leq 2.5 \text{ mm}^2$
Cable external diameter	4.5...8 mm
<b>Environmental conditions</b>	
Ambient temperature	-25...+70 °C
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
Included in delivery	cable gland; 2x plastic seals

## 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

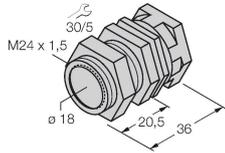
Diameter active area B  $\varnothing 18 \text{ mm}$

## Accessories

QM-18

6945102

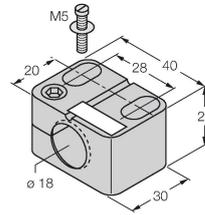
Quick-mount bracket with dead-stop; material: Chrome-plated brass. Male thread M24 × 1.5. Note: The switching distance of the proximity switches may change when using quick-mount brackets.



BST-18B

6947214

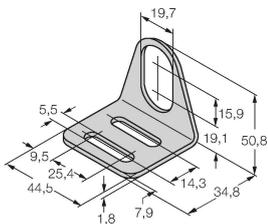
Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6



MW-18

6945004

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



BSS-18

6901320

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

