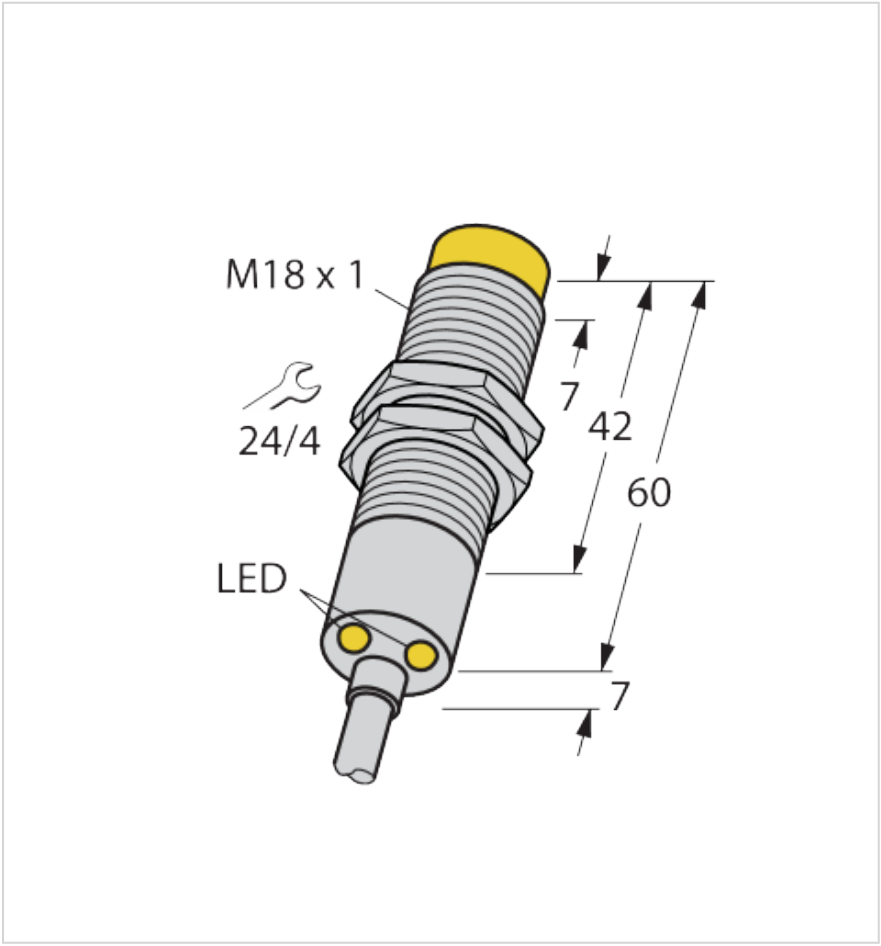
NI4-M18-2AP6X2-0.5-RS4.4T/S90-S1123

Inductive Sensor
For recognition of rotation direction



Type designation	NI4-M18-2AP6X2-0.5-RS4.4T/S90-S1123
Ident-No.	4611291

Technical data

General data	
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Detection area/measuring range	
Rated switching distance	4 mm
Secured operating distance	≤ (0.81 × Sn) mm
Power supply	

Features

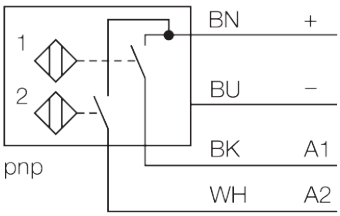
- M18 × 1 threaded barrel
- Nickel-plated brass
- Monitoring both directions of rotation
- 42,000 pulses per minute
- 2 × NO contact, PNP output
- DC 4-wire, 10…30 VDC
- Cable connection

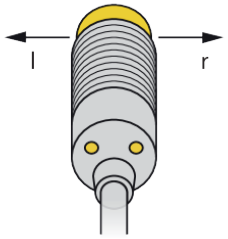
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Technical data

Operating voltage U_B	10...30 VDC
Voltage drop at I_e	≤ 1,8 V
Electrical data	
No-load current	15 mA
Output function	4-wire, NO contact, PNP
Short-circuit protection	yes/Cyclic
Wire break/reverse polarity protection	Complete
DC rated operational current	≤ 200 mA
Isolation test voltage	≤ 0,5 kV
Residual current	≤ 0,1 mA
Residual ripple	≤ 10 % U_{SS}
Switching frequency	0,7 kHz
Accuracy/deviation	
Hysteresis	3 % v. E...15 % v. E.
Temperature drift	10 %
Repeat accuracy	≤ 2 % v. E.
Mechanical data	
Design	Threaded barrel, M18 x 1
Construction type designation	M18
	⌀ 18 mm
Housing material	Metal, CuZn, Nickel Plated
Active area material	Plastic, PPO
End cap	Plastic, EPTR
Max. tightening torque of housing nut	25 Nm
Electrical connection	Cable
Pressure resistant	no
Thread length	35 mm
Thread size	M18 × 1
Mounting conditions	Non-flush
Cable	
Cable length	0,5 m
Core cross-section	4 x 0,5 mm²
External Diameter of the Cable	Ø 5 mm
Cable Jacket Material	PUR
Ambient conditions	
Ambient temperature	-25...+70 °C
Pollution degree	3

Wiring Diagram





Functional principle

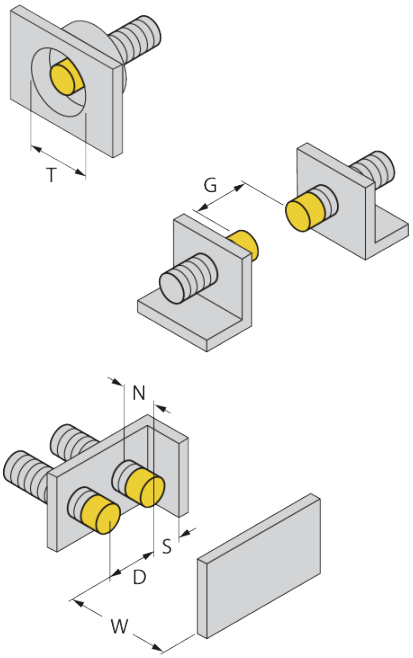
Inductive sensors are used for the contactless and wear-free detection of metallic objects. For this, they use a high-frequency electromagnetic AC field that interacts with the target. Inductive sensors generate this field via an RLC circuit with a ferrite coil.

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Technical data

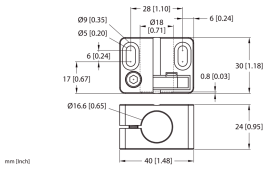
Shock resistance	30 g (11 ms)
Vibration resistance	55 Hz (1 mm)
Protection class	IP67
Displays/controls	
Switching state	LED, 2 × yellow
Comments	
Special version	S90-S1123 = PUR cable 2 sensors in one housing for detecting the sense of rotation

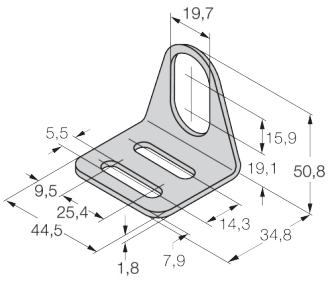
Assembly instructions



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: 18 mm

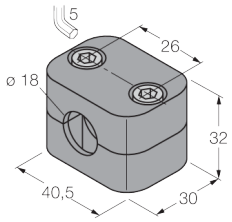
Mounting accessories

BST-18B	6947214
	Mounting bracket for threaded barrel sensors, with dead-stop; material: PA6

MW18	6945004
	Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)

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Mounting accessories

BSS-18	6901320
	Mounting bracket for smooth and threaded barrel sensors; material: Polypropylene

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