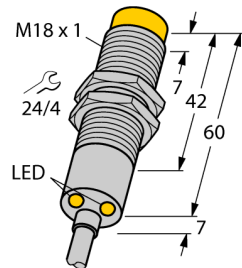


Inductive Sensor

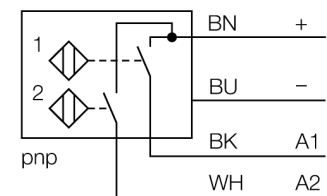
For Recognition of Rotation Direction

NI4-M18-2AP6X2/S90-S1123



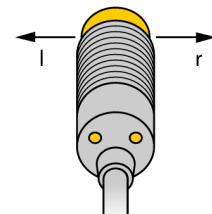
- M18 × 1 threaded barrel
- Nickel-plated brass
- Monitoring both directions of rotation
- 42,000 pulses per minute
- 2 x NO contact, PNP output
- DC 4-wire, 10...30 VDC
- Cable connection

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.



Type	NI4-M18-2AP6X2/S90-S1123
ID	4611234
Special version	S90-S1123 Corresponds to: PUR Cable 2 Sensors in One Housing for Detecting the Sense of Rotation
General data	
Rated switching distance S_n	4 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 %
Electrical data	
Operating voltage U_s	10...30 VDC
Ripple U_{rs}	$\leq 10\%$ U_{Bmax}
DC rated operating current I_s	≤ 200 mA
Residual current	≤ 0.1 mA
Isolation test voltage	0.5 kV
Short-circuit protection	yes/Cyclic
Voltage drop at I_s	≤ 1.8 V
Output function	4-wire, NO contact, PNP
Switching frequency	0.7 kHz
Mechanical data	
Design	Threaded barrel, M18 x 1
Dimensions	67 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
Cable quality	$\varnothing$ 5mm, PUR, 2 m
Core cross-section	4 x 0.5 mm ²

Environmental conditions	
Ambient temperature	-25...+70 °C
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
Switching state	
	LED, 2 × yellow

Accessories

Type code	Ident-No.		Dimension drawing
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	