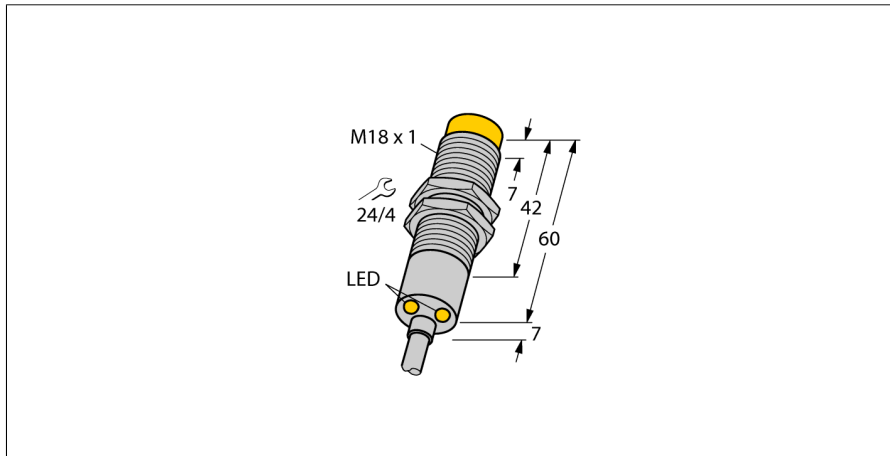


# Inductive sensor

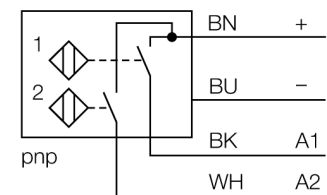
## For recognition of rotation direction

### NI4-M18-2AP6X2/S90-S1123



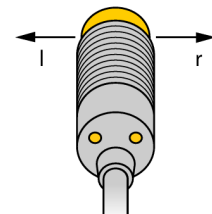
- Threaded barrel, M18 x 1
- Chrome-plated brass
- Monitoring both directions of rotation
- 42,000 pulses per minute
- 2 x NO contact, PNP output
- DC 4-wire, 10...30 VDC
- Cable connection

#### Wiring Diagram



#### Functional principle

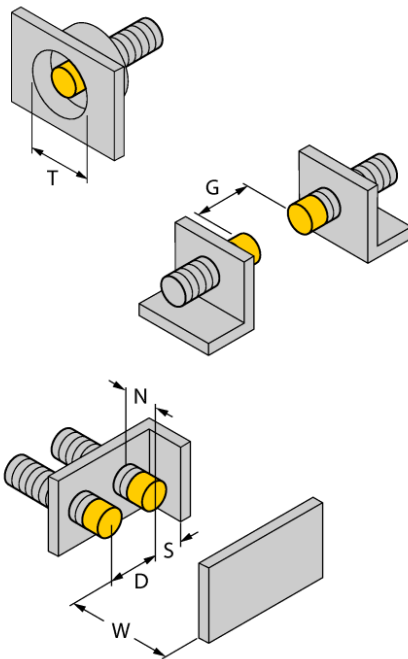
Inductive sensors detect metal objects contactless and wear-free. For this, they use a high-frequency electromagnetic AC field that interacts with the target. Inductive sensors generate this field via an RLC circuit with a ferrite coil.



<b>Type designation</b>	NI4-M18-2AP6X2/S90-S1123
Ident-No.	4611234
<b>Rated switching distance Sn</b>	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 %
Ambient temperature	-25...+70 °C
<b>Operating voltage</b>	10...30 VDC
Residual ripple	$\leq 10\% U_{ss}$
DC rated operational current	$\leq 200$ mA
No-load current $I_0$	$\leq 15$ mA
Residual current	$\leq 0.1$ mA
Isolation test voltage	$\leq 0.5$ kV
Short-circuit protection	yes/ Cyclic
Voltage drop at $I_0$	$\leq 1.8$ V
Output function	4-wire, NO contact, PNP
Switching frequency	0.7 kHz
<b>Design</b>	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 housing nut	25 Nm
Electrical connection	Cable
Cable quality	5mm, PUR, 2
Cable cross section	4 x 0.5 mm <sup>2</sup>
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
Packaging unit	1
<b>Switching state</b>	LED, 2 x yellow

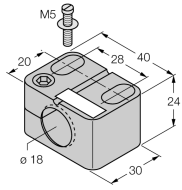
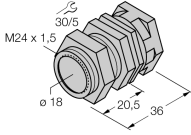
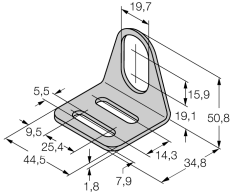
**Inductive sensor**  
**For recognition of rotation direction**  
**NI4-M18-2AP6X2/S90-S1123**

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
<hr/>	
Diameter active area B	Ø 18 mm



**Inductive sensor**  
**For recognition of rotation direction**  
**NI4-M18-2AP6X2/S90-S1123**

**Accessories**

Type code	Ident-No.	Description	
BST-18B	6947214	Fixing clamp for threaded barrel devices, with dead-stop; material: PA6	
QM-18	6945102	Quick-mount bracket with dead-stop; material: Chrome-plated brass Male thread M24 x 1.5. Note: The switching distance of proximity switches can be reduced by the use of quick-mount brackets.	
MW-18	6945004	Mounting bracket for threaded barrel devices; material: Stainless steel A2 1.4301 (AISI 304)	
BSS-18	6901320	Mounting bracket for smooth and threaded barrel devices; material: Polypropylene	