

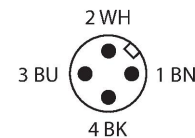
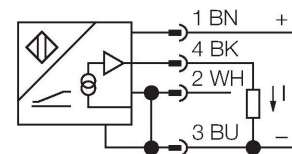
NI10-M18E-SI6-H1143/S968

Inductive Sensor – With Analog Output

Features

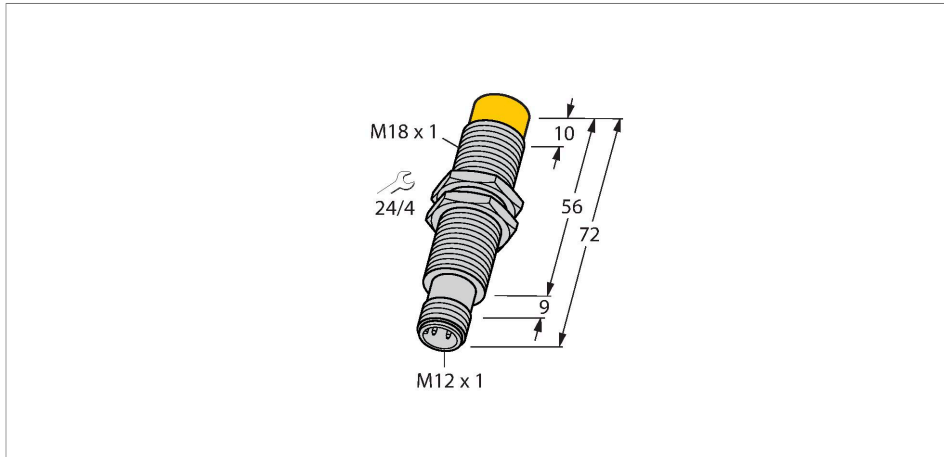
- Threaded barrel, M18 x 1
- Chrome-plated brass
- 3-wire, 10...30 VDC
- Analog output
- 0...10 mA
- M12 x 1 male connector

Wiring diagram



Functional principle

Inductive TURCK sensors with analog output accomplish simple control tasks. They provide a current, voltage or frequency signal proportional to the target's distance. The output signal is linear to the distance of the target over the entire sensing range.



Technical data

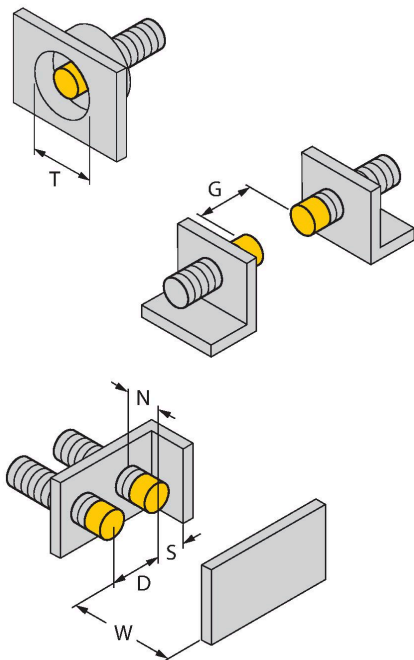
Type	NI10-M18E-SI6-H1143/S968
ID	1535512
Remark to product	custom's specific sensing curve; distance to target 8 to 10mm, I = 10 to 10,4mA
Special version	S968 corresponds to: customised analogue curve characteristic
General data	
Measuring range	0.5...8 mm
Mounting conditions	Non-flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeatability	$\leq 1\%$ of measuring range A - B
	0.5 %, after warm-up 0.5 h
Reproducibility	$\leq 80 \mu\text{m}$
	$\leq 40 \mu\text{m}$, after a warm-up time of 0.5 h
Temperature drift	$\leq \pm 0.06\%$ /K
Electrical data	
Operating voltage	10...30 VDC
Residual ripple	$\leq 10\%$ U_{ss}
No-load current	8 mA
Isolation test voltage	≤ 0.5 kV
Short-circuit protection	yes
Wire breakage/Reverse polarity protection	no / Complete
Output function	3-wire, Analog output

Technical data

Current output	0...10 mA
Load resistance current output	≤ 0.4 kΩ
Measuring sequence frequency	100 Hz
Mechanical data	
Design	Threaded barrel, M18 x 1
Dimensions	72 mm
Housing material	Metal, CuZn, Chrome-plated
Active area material	Plastic, PA12-GF30
Max. tightening torque of housing nut	25 Nm
Electrical connection	Connector, M12 × 1
Environmental conditions	
Ambient temperature	-25...+70 °C
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
MTTF	751 years acc. to SN 29500 (Ed. 99) 40 °C

Mounting instructions

Mounting instructions/Description



Distance D	36 mm
Distance W	18 mm
Distance T	3 x B
Distance S	27 mm
Distance G	36 mm
Distance N	12 mm
Diameter active area B	Ø 18 mm

Accessories

BST-18B

6947214

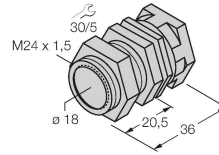
Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6



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.



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

