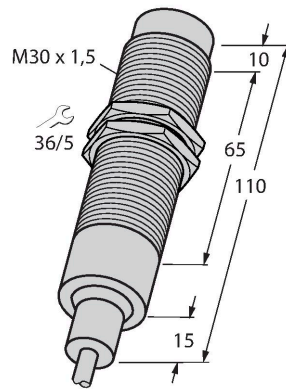


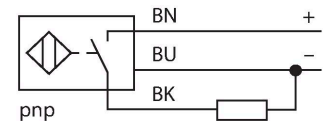
NI15-EM30-AP6/S907 12M Inductive Sensor – With Increased Temperature Range



Features

- Threaded barrel, M30 x 1.5
- Stainless steel, 1.4571
- Temperatures up to +160 °C
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- Cable connection

Wiring diagram

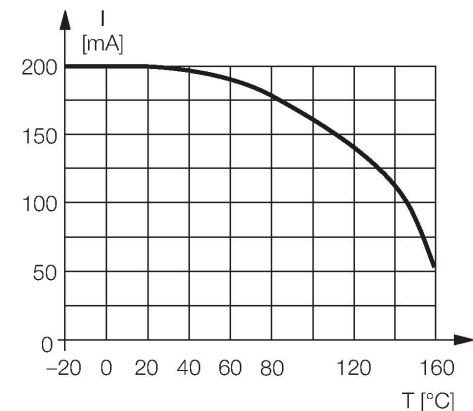


Technical data

Type	NI15-EM30-AP6/S907 12M
ID	4617402
Special version	S907 Corresponds to: Maximum ambient temperature = 160 °C
General data	
Rated switching distance	15 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	≤ 2 % of full scale
Temperature drift	$\leq \pm 20$ %
Hysteresis	3...15 %
Electrical data	
Operating voltage U_B	10...30 VDC
Ripple U_{ss}	≤ 10 % U_{Bmax}
DC rated operating current I_o	≤ 200 mA
Rated operational current	See derating curve
No-load current	≤ 15 mA
Residual current	≤ 0.1 mA
Isolation test voltage	0.5 kV
Short-circuit protection	yes/Cyclic
Voltage drop at I_o	≤ 1.8 V
Wire break/reverse polarity protection	yes/Complete
Output function	3-wire, NO contact, PNP

Functional principle

Inductive sensors detect metal objects contactless and wear-free. For this purpose they use a high-frequency electromagnetic AC field that interacts with the target. The sensors hosting a ferrite core coil generate the AC field through an LC resonant circuit. Special versions are available for ambient temperatures between -60°C and +250°C.



Technical data

Switching frequency	0.2 kHz
Mechanical data	
Design	Threaded barrel, M30 x 1.5
Dimensions	110 mm
Housing material	Stainless steel, 1.4571 (AISI 316Ti)
Active area material	Plastic, PEEK
End cap	Plastic, PTFE
Max. tightening torque of housing nut	40 Nm
Electrical connection	Cable
Cable quality	Ø 3.7 mm, PTFE, FEP, 12 m
Core cross-section	3 x 0.34 mm ²
Environmental conditions	
Ambient temperature	-25...+160 °C
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP68 IP69K

Mounting instructions

Mounting instructions/Description

The image contains three technical diagrams illustrating the mounting of the NI15-EM30-AP6/S907 12M sensor. The top diagram shows a side view of the sensor with dimension T. The middle diagram shows a side view of the sensor with dimension G. The bottom diagram shows a front view of the sensor with dimensions N, S, D, and W.

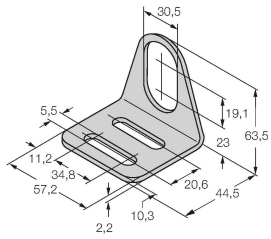
Distance D	3 x B
Distance W	3 x Sn
Distance T	3 x B
Distance S	1.5 x B
Distance G	6 x Sn
Distance N	2 x Sn
Diameter active area B	Ø 30 mm

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Accessories

MW30

6945005



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