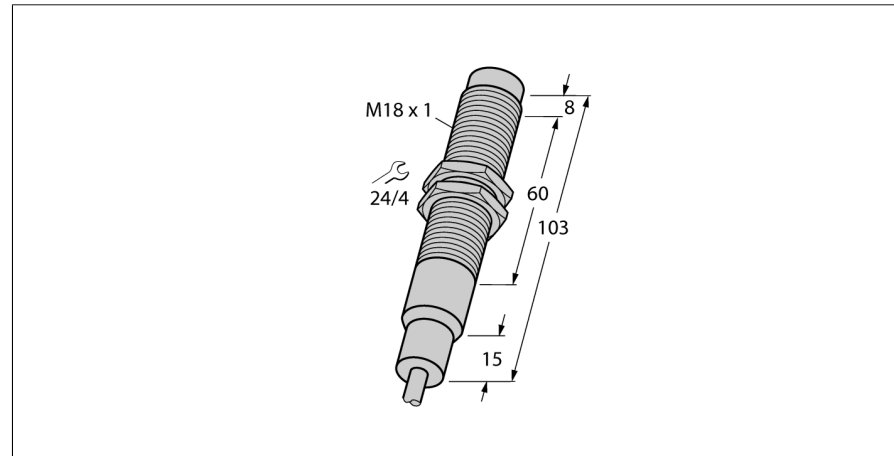


**Inductive sensor  
with extended temperature range  
NI8-EM18-AP6/S907**



- Threaded barrel, M18 x 1
- Stainless steel, 1.4571
- For temperatures up to +160°C
- 3-wire DC, 10...30 VDC
- NO contact, PNP output
- Cable connection

**Wiring diagram**

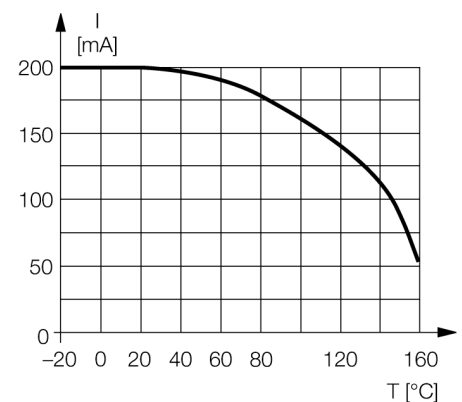


**Functional principle**

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.

**derating curve**



<b>Type code</b>	NI8-EM18-AP6/S907
Ident no.	4611231
<b>Rated operating distance Sn</b>	8 mm
Mounting condition	non-flush
Assured sensing range	≤ (0,81 x Sn) mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeatability	≤ 2 % of full scale
Temperature drift	20 %
Hysteresis	3...15 %
Ambient temperature	-25...+160 °C
<b>Operating voltage</b>	10...30VDC
Residual ripple	≤ 10 % U <sub>ss</sub>
DC rated operational current	≤ 200 mA
Rated operational current	see derating curve
No-load current I <sub>0</sub>	≤ 15 mA
Residual current	≤ 0.1 mA
Rated insulation voltage	≤ 0.5 kV
Short-circuit protection	yes/ cyclic
Voltage drop at I <sub>r</sub>	≤ 1.8 V
Wire breakage / Reverse polarity protection	yes/ complete
Output function	3-wire, NO contact, PNP
Switching frequency	0.2 kHz
<b>Design</b>	threaded barrel, M18 x 1
Dimensions	103 mm
Housing material	stainless steel, V4A (1.4571)
Material active area	Plastic, PEEK
End cap	Plastic, PTFE
Max. tightening torque housing nut	25 Nm
Connection	cable
Cable quality	3.7 mm, PTFE, FEP, 2 m
Cable cross section	3 x 0.34 mm <sup>2</sup>
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP68 / IP69K

**Inductive sensor  
with extended temperature range  
NI8-EM18-AP6/S907**

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 of the active area B**                       $\varnothing$  18 mm



**Inductive sensor  
with extended temperature range  
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**Accessories**

Type code	Ident no.	Description	Dimension drawing
MW-18	6945004	Mounting bracket for threaded barrel devices; material: Stainless steel A2 1.4301 (AISI 304)	