

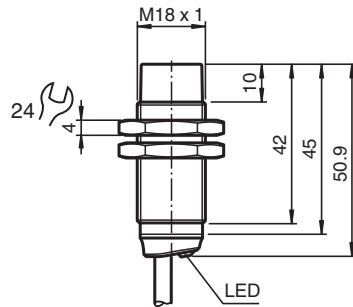
Inductive sensor NAN12-18GM45-U

- Inductive analog sensor
- Output 0 V ... 10 V
- Measuring range 0 ... 12 mm
- Non-flush mountable
- Flexible use with versatile mounting opportunities

Inductive distance sensor with analog voltage output



Dimensions



Technical Data

General specifications

Output type	Analog voltage output	
Installation	non-flush	
Output polarity	DC	
Actuating element	mild steel, e. g. 1.0037, SR235JR (formerly St37-2) 36 mm x 36 mm x 1 mm	
Measuring range	0 ... 12 mm	

Output type	3-wire	
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Nominal ratings

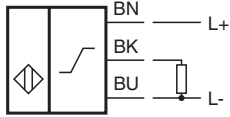
Operating voltage	U_B	15 ... 30 V
Reverse polarity protection	reverse polarity protected	
Short-circuit protection	current limited	
Linearity error	± 3 % of full-scale value	
Temperature drift	± 10 % of full-scale value	
Repeat accuracy	± 1 % of full-scale value	
Recovery time	≤ 50 ms	
No-load supply current	I_0	12 mA

Release date: 2025-06-06 Date of issue: 2025-06-06 Filename: 70145056-0023_eng.pdf

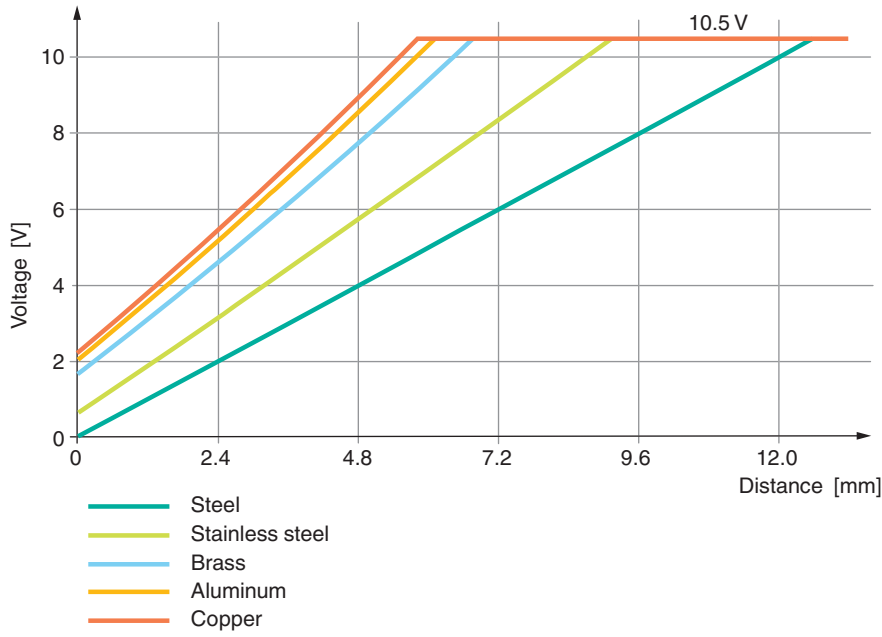
Technical Data

Status indicator		LED, yellow permanently on: damping element within measuring range slowly flashing (2 Hz): damping element outside measuring range fast flashing (10 Hz): fault state
Functional safety related parameters		
MTTF _d		918 a
Mission Time (T _M)		20 a
Diagnostic Coverage (DC)		0 %
Analog output		
Output type		0 ... 10 V
Slope of output characteristic		0.8 V / mm
Load resistor		≥ 500 Ω
Settling time		≤ 100 ms
Conformity		
PWIS conformity		VDMA 24364-C1/T100°C-W
Compliance with standards and directives		
Standard conformity		
Standards		EN IEC 60947-5-2 EN IEC 60947-5-7
Approvals and certificates		
Protection class		II
Rated insulation voltage	U _i	30 V
Rated impulse withstand voltage	U _{imp}	500 V
UL approval		cULus Listed, General Purpose, Class 2 Power Source
CCC approval		CCC approval / marking not required for products rated ≤36 V
Ambient conditions		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
Storage temperature		-40 ... 85 °C (-40 ... 185 °F)
Mechanical specifications		
Connection type		cable
Housing material		brass , white bronze coated
Sensing face		PBT , green
Degree of protection		IP65/IP67/IP68
Cable		
Wire end ferrules		yes
Cable diameter		4.3 mm ± 0.15 mm
Bending radius		> 10 x cable diameter
Material		PVC
Color		black
Number of cores		3
Core cross section		0.34 mm ²
Length	L	2 m
Mass		120 g
Dimensions		
Diameter		18 mm
Mounting		with nuts, M18
Tightening torque		≤ 30 Nm
General information		
Scope of delivery		2 self locking nuts in scope of delivery

Connection



Characteristic Curve



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