

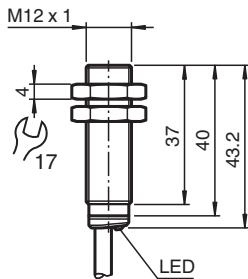
Inductive sensor NAB4-12GM40-U

- Inductive analog sensor
- Output 0 V ... 10 V
- Measuring range 0 ... 4 mm
- Flush mounting
- Flexible use with versatile mounting opportunities

Inductive distance sensor with analog voltage output



Dimensions



Technical Data

General specifications

Output type	Analog voltage output	
Installation	flush	
Output polarity	DC	
Actuating element	mild steel, e. g. 1.0037, SR235JR (formerly St37-2) 12 mm x 12 mm x 1 mm	
Measuring range	0 ... 4 mm	
Output type	3-wire	

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
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	941 a	
Mission Time (T _M)	20 a	
Diagnostic Coverage (DC)	0 %	

Analog output

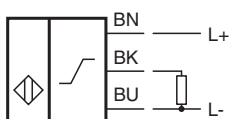
Output type	0 ... 10 V	
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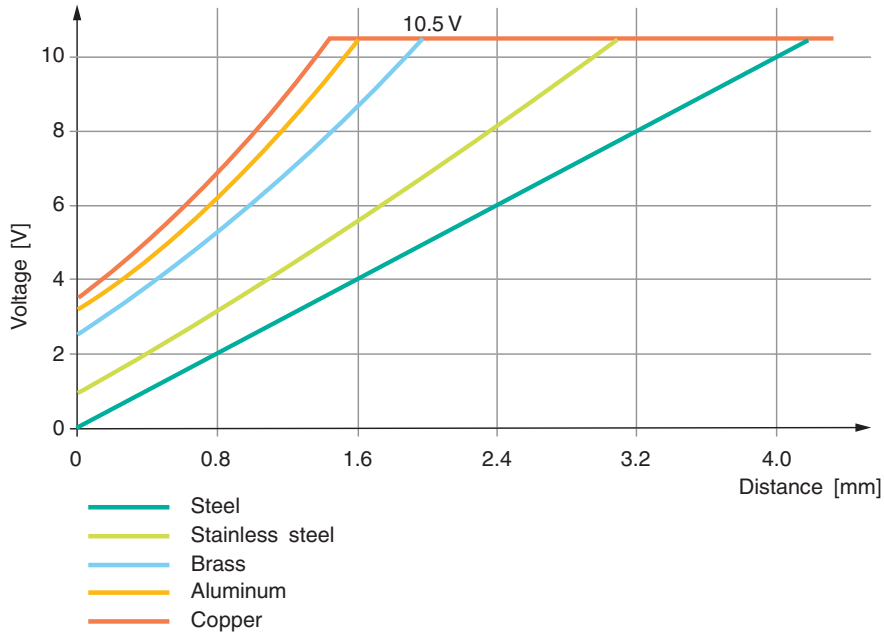
Technical Data

Slope of output characteristic	2.5 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	
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	82 g	
Dimensions		
Length	43 mm	
Diameter	12 mm	
Mounting	with nuts, M12	
Tightening torque	≤ 10 Nm	
General information		
Scope of delivery	2 self locking nuts in scope of delivery	

Connection



Characteristic Curve



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