



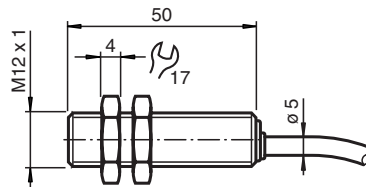
Inductive analog sensor

IA6-12GM50-IU-Y70109008

- Inductive analog
- Analog output 1 mA ... 5 mA/ 0 V ... 5 V
- 0...6 mm quasi flush



Dimensions



Technical Data

General specifications	
Output type	Analog current output or analog voltage output
Installation	quasi flush
Output polarity	DC
Actuating element	mild steel, e. g. 1.0037, SR235JR (formerly St37-2) 18 mm x 18 mm x 1 mm
Reduction factor r_{Al}	0.33
Reduction factor r_{Cu}	0.28
Reduction factor r_{304}	0.8
Reduction factor r_{Brass}	0.43
Measurement range	0 ... 6 mm
Output type	4-wire
Nominal ratings	
Installation conditions	
A	2 mm
B	12 mm
C	18 mm
F	14 mm
Operating voltage	U_B 10 ... 30 V , residual ripple 20 % U_B
Limit frequency (3dB)	1000 Hz
Reverse polarity protection	yes
Short-circuit protection	yes

Release date: 2022-07-13 Date of issue: 2022-07-13 Filename: 70109008_eng.pdf

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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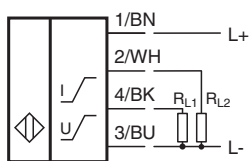
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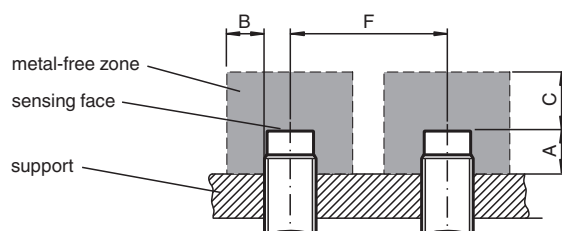
Technical Data

Repeat accuracy	R	± 0.32 mm
Resolution		0 ... 1 μm
No-load supply current	I_0	≤ 10 mA
Functional safety related parameters		
MTTF _d		551 a
Diagnostic Coverage (DC)		0 %
Analog output		
Output type		0 ... 5 V / 1 ... 5 mA
Load resistor		Current output A2: 1 k Ω ($U_B=10\text{V}$) / 5 k Ω ($U_B=30\text{V}$)
Load current		Voltage output A1: ≤ 10 mA
Recovery time		20 ms
Adjustment tolerance zero point		$\leq \pm 10$ % of full-scale value
Temperature drift		± 5 % (0 ... 70 °C) ± 10 % (-25 ... 0 °C)
Residual ripple		20 %
Compliance with standards and directives		
Standard conformity		
Standards		EN 60947-5-2:2007 IEC 60947-5-2:2007 EN 60947-5-7:2003 IEC 60947-5-7:2003
Approvals and certificates		
CCC approval		CCC approval / marking not required for products rated ≤ 36 V
Ambient conditions		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
Mechanical specifications		
Connection type		cable PUR 2 m
Housing material		chromium plated brass
Sensing face		PBT
Degree of protection		IP67
Mass		27 g

Connection

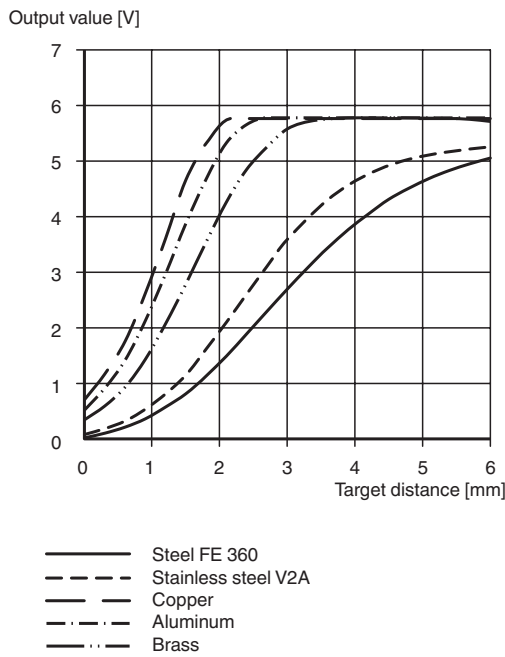


Installation






Characteristic Curve

Output characteristics



Accessories

	BF 12	Mounting flange, 12 mm
	V1-G-2M-PUR	Female cordset single-ended M12 straight A-coded, 4-pin, PUR cable grey
	V1-W-2M-PUR	Female cordset single-ended M12 angled A-coded, 4-pin, PUR cable grey

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