

Inductive analog sensor

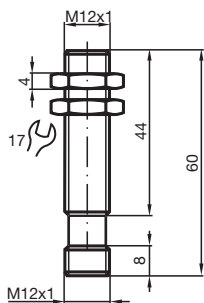
IA6-12GM50-IU-V1



- Inductive analog
- Analog output 0 V ... 10 V/4 mA ... 20 mA
- 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

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

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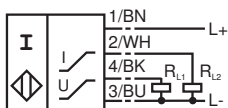
 **PEPPERL+FUCHS**

Technical Data

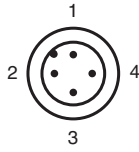
B		12 mm
C		18 mm
F		14 mm
Operating voltage	U_B	15 ... 30 V , residual ripple 20 % U_B
Limit frequency (3dB)		1000 Hz
Reverse polarity protection		yes
Short-circuit protection		yes
Repeat accuracy	R	± 0.32 mm
Repeat accuracy		0 ... 1 μ m
No-load supply current	I_0	≤ 10 mA
Functional safety related parameters		
MTTF _d		551 a
Mission Time (T_M)		20 a
Diagnostic Coverage (DC)		0 %
Analog output		
Output type		0 ... 10 V / 4 ... 20 mA
Load resistor		Current output A2: 0.4 Ω ($U_B=15V$) 1 Ω ($U_B=30V$)
Load current		Voltage output A1: ≤ 15 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		Connector plug M12 x 1 , 4-pin
Housing material		chromium plated brass
Sensing face		PBT
Degree of protection		IP67
Mass		27 g

Connection

IU



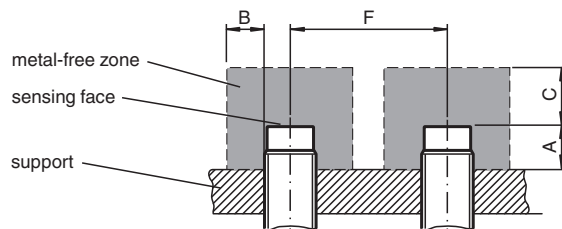
Connection Assignment



Wire colors in accordance with EN 60947-5-2

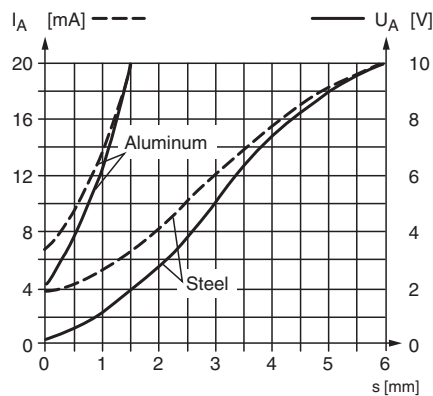
1	BN	(brown)
2	WH	(white)
3	BU	(blue)
4	BK	(black)

Installation



Characteristic Curve

Output characteristics



Accessories

	BF 12	Mounting flange, 12 mm
	V1-G-2M-PUR	Female cordset, M12, 4-pin, PUR cable
	V1-W-2M-PUR	Female cordset, M12, 4-pin, PUR cable