



## Model Number

IA6-12GM50-IU-V1

## Features

- Inductive analog
- 0...6 mm quasi flush
- Analog output 0 V ... 10 V/4 mA ... 20 mA

## Accessories

### BF 12

Mounting flange, 12 mm

### V1-W

Female connector, M12, 4-pin, field attachable

### V1-G-2M-PUR

Female cordset, M12, 4-pin, PUR cable

### V1-W-2M-PUR

Female cordset, M12, 4-pin, PUR cable

## Technical Data

### General specifications

Output type	Analog current output or analog voltage output
Installation	quasi flush
Output polarity	DC
Measurement range	0 ... 6 mm
Output type	4-wire

### Nominal ratings

#### Installation conditions

A	2 mm
B	6 mm
C	18 mm
F	30 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	0 ... 10 $\mu$ m
No-load supply current	$I_0$ $\leq$ 10 mA

### Functional safety related parameters

MTTF <sub>d</sub>	464 a
Mission Time (T <sub>M</sub> )	20 a
Diagnostic Coverage (DC)	0 %

### Analog output

Output type	0 ... 10 V / 4 ... 20 mA
Load resistor	voltage output: $\geq$ 500 $\Omega$ current output: $\leq$ 500 $\Omega$
Recovery time	1 ... 10 ms, typ. 5 ms
Adjustment tolerance zero point	$\leq$ $\pm$ 10 % of full-scale value
Temperature drift	$\pm$ 5 % (0 ... 70 °C) $\pm$ 10 % (-25 ... 0 °C)

### Ambient conditions

Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
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### Mechanical specifications

Connection type	Connector plug M12 x 1, 4-pin
Housing material	chromium plated brass
Sensing face	PBT
Degree of protection	IP67

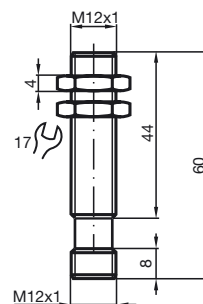
### Compliance with standards and directives

Standard conformity	
Standards	EN 60947-5-2:2007 IEC 60947-5-2:2007 EN 60947-5-7:2003 IEC 60947-5-7:2003

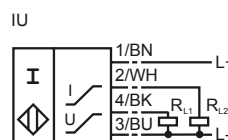
### Approvals and certificates

UL approval	cULus Listed, General Purpose
CSA approval	cCSAus Listed, General Purpose
CCC approval	CCC approval / marking not required for products rated $\leq$ 36 V

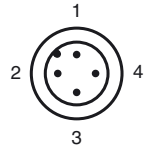
## Dimensions



## Electrical Connection



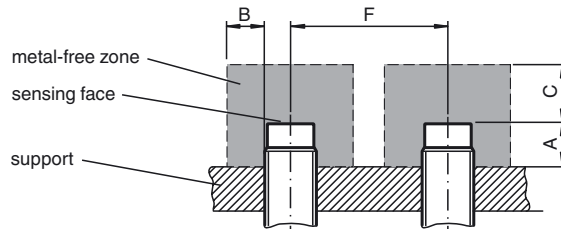
Pinout



Wire colors in accordance with EN 60947-5-2

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

Installation Conditions



Characteristic Curves

Output characteristics

