



### Model Number

PMI14V-F112-U-200MM-V3

### Features

- Analog output 0 ... 10 V
- Measuring range 0 ... 14 mm

## Technical data

### General specifications

Switching element function	Analog voltage output
Installation	flush
Object distance	max. 2.5 mm
Measurement range	0 ... 14 mm

### Nominal ratings

Operating voltage $U_B$	18 ... 30 V DC
Reverse polarity protection	reverse polarity protected
Linearity error	$\pm 0.3$ mm
Repeat accuracy R	$\pm 0.05$ mm
Resolution	33 $\mu$ m
Temperature drift	$\pm 0.5$ mm
No-load supply current $I_0$	$\leq 20$ mA
Operating voltage indicator	LED yellow

### Analog output

Output type	voltage output 0 ... 10 V
Load resistor	$\geq 2000 \Omega$
Short-circuit protection	limited to 6 mA

### Ambient conditions

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

Connection type	0.2 m PUR cable with V3-GM connector
Housing material	diecast zinc, not laquered or coated
Degree of protection	IP67
Material	
Target	mild steel, e. g. 1.0037, SR235JR (formerly St37-2)
Note	The data relating to accuracy only apply to a distance to the object to be detected of 1 ... 2.5 mm.

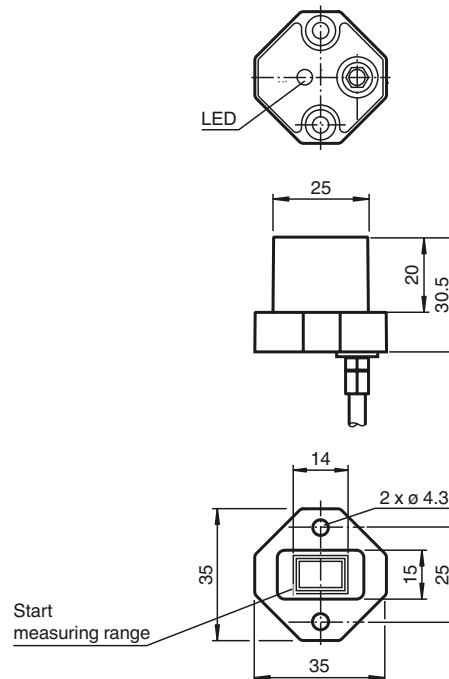
### Compliance with standards and directives

Standard conformity	
Standards	EN 60947-5-2:2007 EN 60947-5-2/A1:2012 IEC 60947-5-2:2007 IEC 60947-5-2 AMD 1:2012 IEC 61131-9:2013

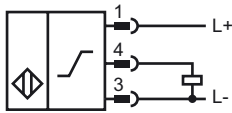
### Approvals and certificates

UL approval	cULus Listed, Class 2 Power Source, Type 1 enclosure
CCC approval	CCC approval / marking not required for products rated $\leq 36$ V

## Dimensions



**Electrical Connection**



**Accessories**

**BT-F90-W**

Damping element for sensors of type F90, F112, and F166; side hole

**Information on Installation and Operation**

**Safety Information**



This product must not be used in applications in which the safety of persons depends on the function of the device.

This product is not a safety component as specified in the EU Machinery Directive.

**Actuator**

The linear position measurement system is optimally aligned to the geometry of Pepperl+Fuchs actuators.

**Using Your Own Actuators**

Generally speaking, it is possible for you to use your own actuators. The specified measurement accuracy of the sensor will be achieved only if the actuator has the following properties:

- Material: construction steel such as S235JR+AR (previously St37)
- Dimensions (L x W x H):  $\geq 18 \text{ mm} \times 8 \text{ mm} \times \geq 4 \text{ mm}$
- The active surface of the actuator must protrude across the entire sensor width.

**Note:**

The width of the actuator must be precisely 8 mm. If the width of the actuator deviates from this value, the position values will differ.

**Installation**

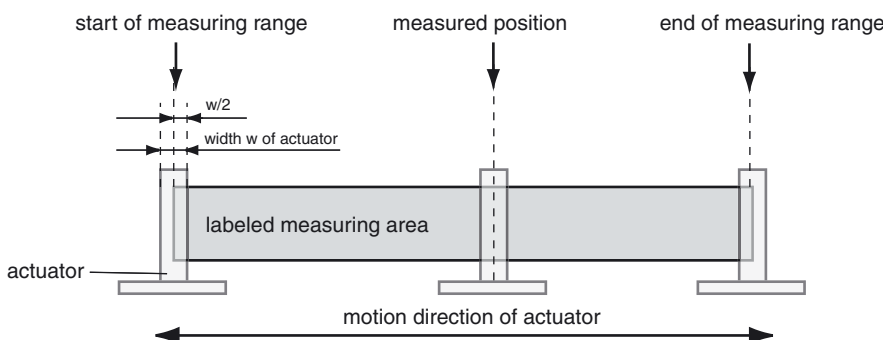
- It is possible to flush mount the device.
- The distance between the center of the measurement field (framed area on the front panel of the sensor) and the fixing base or fixing elements (e.g., protruding screw heads) of the actuator must be at least 10 mm.

**Operating Instructions**

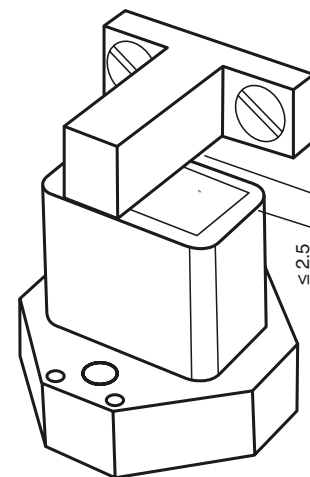
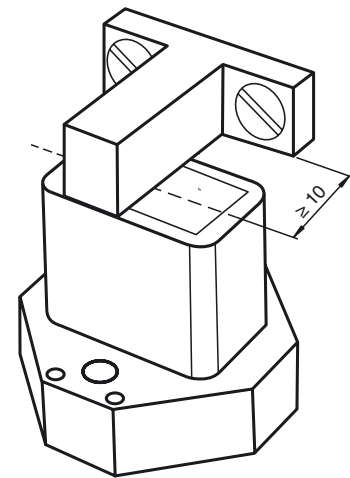
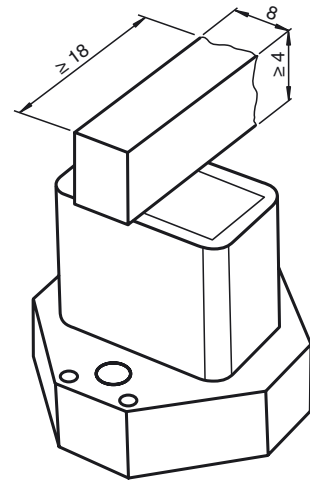
The specified measurement accuracy is achieved if the distance of the actuator from the sensor surface is max. 2.5 mm.

**Definition of the Measuring Range/Measured Position**

The measured position of the actuator is based on half of the width (center of the actuator). The measuring range starts and ends when the actuator covers the measurement field marked on the sensor with half of its width in the course of its longitudinal movement.



**Additional Information**



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