



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 | ± 0.3 mm |
| Repeat accuracy R | ± 0.05 mm |
| Resolution | 33 μ m |
| Temperature drift | ± 0.5 mm |
| No-load supply current I_0 | ≤ 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) |
|---------------------|--------------------------------|

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) |
| Cable | |
| Cable diameter | 2.9 mm \pm 0.1 mm |
| Bending radius | > 10 x cable diameter |
| Note | The data relating to accuracy only apply to a distance to the object to be detected of 1 ... 2.5 mm. |

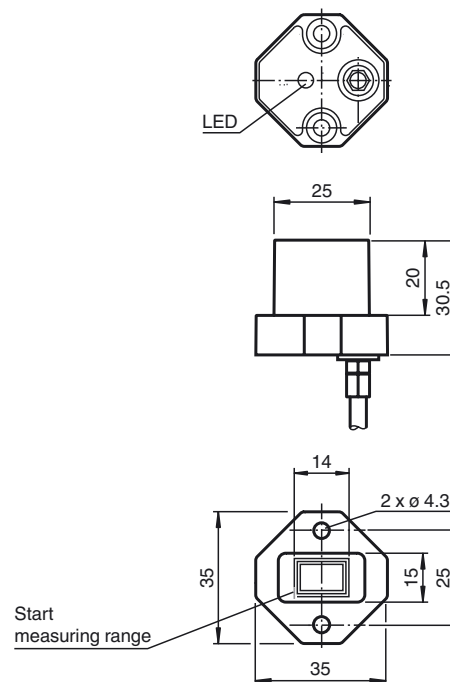
Compliance with standards and directives

| | |
|---------------------|---|
| 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 |

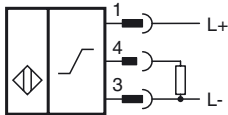
Approvals and certificates

| | |
|--------------|--|
| UL approval | cULus Listed, Class 2 Power Source, Type 1 enclosure |
| CCC approval | CCC approval / marking not required for products rated ≤ 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

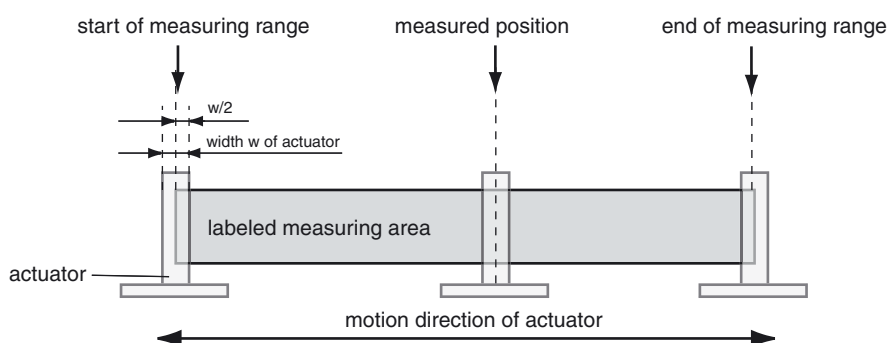
- It is possible to flush mount the device.
- The distance between the center of the measurement field (framed area on the front panel of the sensor) and the fixing base or fixing elements (e.g., protruding screw heads) of the actuator must be at least 10 mm.

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

