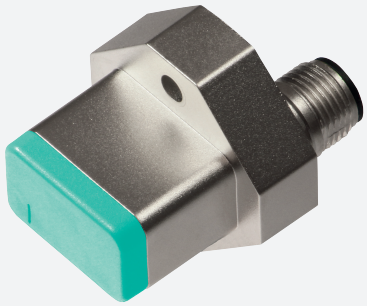
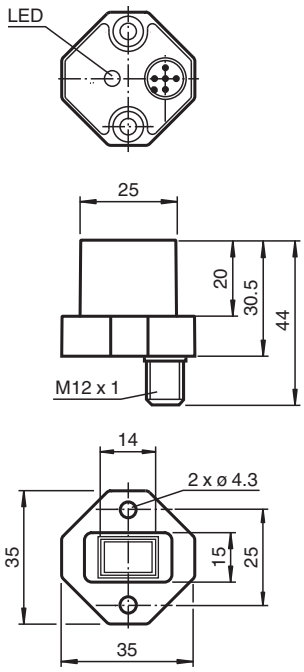


Inductive positioning system

PMI15V-F112-EP-IO-V1

- IO-Link interface for service and process data
- Measuring range 0 ... 15 mm

Dimensions



Technical Data

General specifications		
Object distance		0.5 ... 2 mm
Measuring range		0 ... 15 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	± 0.5 mm
Resolution		10 µm
Temperature drift		± 0.4 mm in the range 0.5 mm ... 14.5 mm (for 1 mm object distance)
No-load supply current	I_0	≤ 22 mA

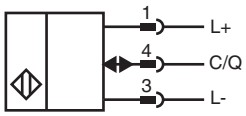
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Technical Data

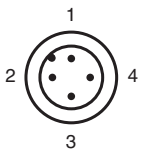
Safety-relevant product characteristics		
$MTTF_d$		830 a
Mission Time (T_M)		20 a
Diagnostic Coverage (DC)		0 %
Interface		
Interface type		IO-Link (via C/Q = Pin 4)
IO-Link revision		1.1
Device profile		Identification and Diagnosis - I&D Smart Sensor - SSP 0 Smart Sensor - SSP 3.1
Process data		Input 4 byte - Measurement value 16 bit - Scale 8 bit - Signal quality indicator 2 bit - Switching signal 1 1 bit - Switching signal 2 1 bit
Vendor ID		1 (0x0001)
Device ID		2097413 (0x200105)
Transfer rate		COM2 (38.4 kBit/s)
Min. cycle time		3 ms
SIO mode support		yes
Compatible master port type		Class A Class B
Switching output		
Output type		1 push-pull (4 in 1) output, short-circuit protected, reverse polarity protected, overvoltage protected
Operating current	I_L	≤ 100 mA / Output
Voltage drop		≤ 3 V
Short-circuit protection		pulsing
Compliance with standards and directives		
Standard conformity		
Standards		EN IEC 60947-5-2
Communication interface		IEC 61131-9 / IO-Link V1.1.3
Approvals and certificates		
UL approval		cULus Listed Load Type: General Purpose Circuitry: Class 2 Power Source Enclosure Type Rating: Type 1 Supply/Switching Voltage: 30 V DC Output Switching Current: 100 mA
Ambient conditions		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
Mechanical specifications		
Connection type		5-pin, M12 x 1 connector
Degree of protection		IP67
Material		
Housing		Zinc diecast, nickel-plated cover PA Active surface PBT
Target		mild steel, e. g. 1.0037, SR235JR (formerly St37-2)
Dimensions		
Height		30.5 mm
Width		35 mm
Length		35 mm

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Connection Assignment



Connection Assignment



Wire colors in accordance with EN 60947-5-2

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

Operation

Safety Information
This product is not a safety component as specified in the EU Machinery Directive.
If this product is to be used in safety applications, contact your local sales representative or Pepperl+Fuchs technical sales support (service line).

Damping Element
The linear position measurement system is optimally aligned to the geometry of Pepperl+Fuchs damping elements.

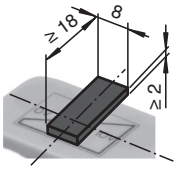
Using Your Own Damping Element
Generally speaking, it is possible for you to use your own damping element. The specified measurement accuracy of the sensor will be achieved only if the damping element has the following properties:

- Material: construction steel such as S235JR+AR (previously St37)
- Dimensions (L x W x H): > 18 mm x 8 mm x > 2 mm
- The active surface of the actuator must protrude across the entire sensor width.

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

Additional Information

dimensions for the target object:



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