



## Vibration sensor

### VIM62PP-E1T16-0NE-I420K24

- Extended temperature range
- Screw-in thread for simple installation
- Simple electrical commissioning
- Rugged stainless steel housing
- Vibration velocity in mm/s via root mean square formation (rms)
- Suitable for use in hazardous area up to Zone 1/21 with type of protection explosionproof enclosure

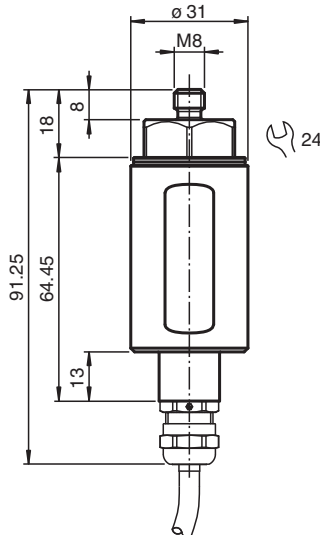
Vibration sensor with analog current output, increased temperature resistance, suitable up to Zone 1/21 with type of protection explosionproof enclosure



### Function

The vibration sensor determines the vibration quantity using rms (root mean square) averaging. This form of quadratic averaging or pre-filtering enables precise trend statements about the condition of the application. Furthermore, the vibration sensor has an additional output for the output of the measured temperature value. The sensor's design is impressively robust against tough environmental conditions. The stainless steel housing provides optimal protection against corrosion. The wide temperature range of the sensor enables reliable measured values even in harsh conditions. Furthermore there is an approval for the use of the sensor in hazardous areas. The simple mounting allows for commissioning in any application.

### Dimensions



### Technical Data

#### General specifications

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

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## Technical Data

Measuring technology		MEMS
Series		Performance Plus Line
Measured variable		Vibration velocity Temperature
Measurement range		
Vibration velocity	v-rms	0 ... 16 mm/s
Measurement accuracy		± 0.1 mm/s (calibration point: 90% of the measuring range; 159.2 Hz) Complies with the tolerance requirements of DIN ISO 2954 for measurement range greater than 8 mm/s
Cross-sensitivity		< 5 % of the partial lateral acceleration, which acts exactly 90° to the measuring axis
Frequency range		10 ... 1000 Hz
Averaging time		for v-rms: 2 s
<b>Electrical specifications</b>		
Fusing		external fuse is required: 3 A , semi-time-lag , 30 V DC
Operating voltage	U <sub>B</sub>	10 ... 30 V DC
Current consumption		max. 50 mA
Power consumption	P <sub>0</sub>	max. 750 mW
Time delay before availability	t <sub>v</sub>	10 s (rms filter is calculated initially with measurement data before they are available at the output)
Surge protection		up to 2 kV
<b>Output 1</b>		
Output type		analog output, current output of the vibration variable
Output rated operating current		4 ... 20 mA
Load resistor		≤ 500 Ω
<b>Standard conformity</b>		
Degree of protection		DIN EN 60529, IP66, IP67
Shock resistance		DIN EN 60068-2-27, 60 g, 6 ms
Vibration resistance		DIN EN 60068-2-6, 16.5 g, 10 ... 1000 Hz
<b>Approvals and certificates</b>		
IECEX approval		
Equipment protection level Gb		IECEX CSAE 22.0042X
Equipment protection level Db		IECEX CSAE 22.0042X
ATEX approval		
Equipment protection level Gb		CSANe 21 ATEX 1074 X
Equipment protection level Db		CSANe 21 ATEX 1074 X
<b>Ambient conditions</b>		
Ambient temperature		-40 ... 60 °C (-40 ... 140 °F)
Measuring head temperature		-40 ... 125 °C (-40 ... 257 °F) directly at the mounting point
Storage temperature		-40 ... 60 °C (-40 ... 140 °F)
<b>Mechanical specifications</b>		
Connection type		cable
Housing material		Stainless steel 1.4305 / AISI 303
Housing length		82.35 mm
Housing diameter		31 mm
Degree of protection		IP66 / IP67 only in connected state
Cable		
Number of cores		4
Core cross section		0.34 mm <sup>2</sup>
Length	L	2 m
Tension force		max. 80 N (tensile loading directly at the cable, not at the metal conduit if attached)
Mass		425 g
<b>General information</b>		
Use in the hazardous area		see instruction manuals Only use accessories specified by the manufacturer.

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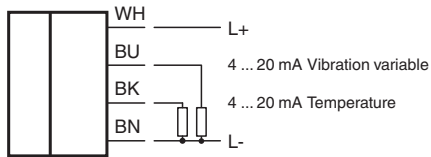
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## Connection



## Installation

### Further Documentation












The sensor manual is also available as detailed overall documentation. Among other things, installation, grounding concepts and mounting are described there in detail.

You can access the manual via the product detail page at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com).

### Note

The correct electrical connection and the selection of the appropriate grounding concept are crucial for malfunction-free operation of the sensor. For detailed information you may refer to the manual of the sensor.

## Accessories

	<b>RSL6-CS-SC-M55P200</b>	Protective rubber sleeve for VIM6* vibration sensors against ingress of moisture and mechanical effects
	<b>MONAD-M08-1,25-M08-1,25K/368</b>	Mounting adapter for VIM3*/VIM6*/VIM8* vibration sensors, internal thread M8 x 1.25 x 10, external thread M8 x 1.25, screw-in depth 19.5
	<b>MONAD-M08-1,25-M10-1,5/36</b>	Mounting adapter for VIM3*/VIM6* vibration sensors, internal thread M8 x 1.25 x 10, external thread M10 x 1.5, screw-in depth 18
	<b>MONAD-M08-1,25-M30-3,5/368</b>	Mounting adapter for VIM3*/VIM6*/VIM8* vibration sensors, internal thread M8 x 1.25 x 10, external thread M30 x 3.5, screw-in depth 45
	<b>MONAD-M08-1,25-1,2Z-BSPT/36</b>	Mounting adapter for VIM3*/VIM6* vibration sensors, internal thread M8 x 1.25 x 10, external thread NPT1/2", screw-in depth 24
	<b>EMCAD-M08-1,25-M08-1,25/36</b>	EMC adapter for VIM3*/VIM6* vibration sensors, internal thread M8 x 1.25 x 10, external thread M8 x 1.25, screw-in depth 8
	<b>MEC-VIM6-V4A-1.5</b>	Flexible metal conduit 1.5 m for VIM6 vibration sensors
	<b>MONAD-M08-1,25-M06-1,0/36</b>	Mounting adapter for VIM3*/VIM6* vibration sensors, internal thread M8 x 1.25 x 10, external thread M6 x 1.0, screw-in depth 10
	<b>MONAD-M08-1,25-M16-2,0/368</b>	Mounting adapter for VIM3*/VIM6*/VIM8* vibration sensors, internal thread M8 x 1.25 x 10, external thread M16 x 2.0, screw-in depth 27
	<b>MONAD-M08-1,25-M20-2,5/368</b>	Mounting adapter for VIM3*/VIM6*/VIM8* vibration sensors, internal thread M8 x 1.25 x 10, external thread M20 x 2.5, screw-in depth 34
	<b>MONAD-M08-1,25-M24-3,0/368</b>	Mounting adapter for VIM3*/VIM6*/VIM8* vibration sensors, internal thread M8 x 1.25 x 10, external thread M24 x 3.0, screw-in depth 40