

# Vibration sensor

## VIM62PL-E1V16-0ME-I420V14



- Extended temperature range
- Screw-in thread for simple installation
- Simple electrical commissioning
- Vibration velocity in mm/s via root mean square formation (rms)

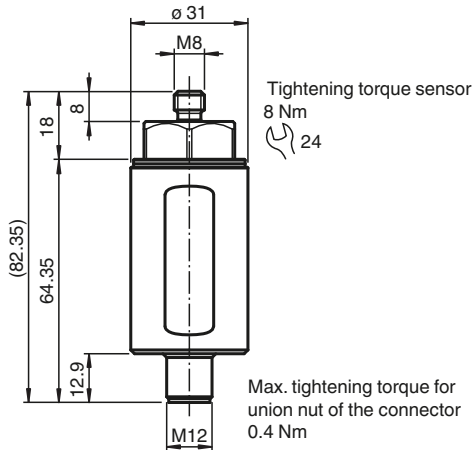
Vibration sensor with analog current output and increased temperature resistance



### Function

The vibration sensor determines the vibration variable with the aid of rms (root mean square) averaging. This form of quadratic averaging or pre-filtering allows precise trend statements to be made about the condition of the application. The vibration sensor also impresses with its strong robustness against environmental influences. A stainless steel housing provides optimum protection against corrosion. The wide temperature range provides reliable measured values despite harsh conditions. The simple mounting facilitates commissioning in any application.

### Dimensions



### Technical Data

#### General specifications

Type	Vibration sensor
Measuring technology	MEMS
Series	Performance Line

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

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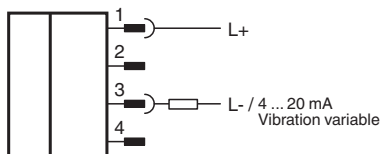
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## Technical Data

Measured variable		Vibration velocity
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		fuse unit 3 A , semi-time-lag , 30 V DC
Operating voltage	U <sub>B</sub>	10 ... 30 V DC
Current consumption		max. 25 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>Analog output</b>		
Output type		current output 4 ... 20 mA
Load resistor		500 Ω
Short-circuit protection		yes
<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>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		plug
Housing material		Stainless steel 1.4305 / AISI 303
Housing length		82.35 mm
Housing diameter		31 mm
Degree of protection		IP66/IP67
Connector		
Threading		M12
Number of pins		4
Mass		approx. 200 g

## Connection



**Accessories**

	<p><b>V1-G-3M-PUR-ABG0</b></p>	<p>Female cordset single-ended M12 straight A-coded, 4-pin, PUR cable grey, shielded</p>
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