

# Vibration sensor

## VIM62PL-E1T16-0ME-I420V14



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

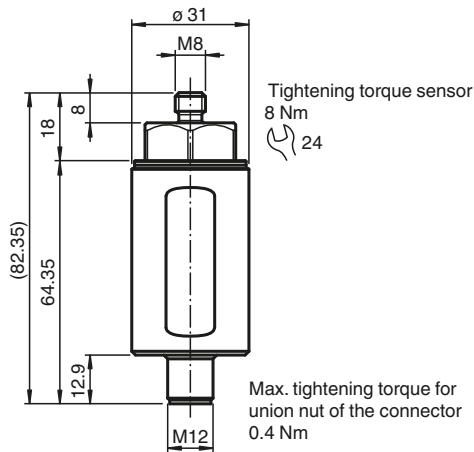
Vibration sensor with analog current output and increased temperature resistance



### 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. Furthermore, the vibration sensor has an additional output for the output of the measured temperature value. 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

Release date: 2021-11-30 Date of issue: 2021-11-30 Filename: 70141166-100001\_eng.pdf

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

Pepperl+Fuchs Group  
www.pepperl-fuchs.com

USA: +1 330 486 0001  
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111  
fa-info@de.pepperl-fuchs.com

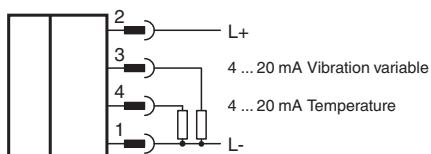
Singapore: +65 6779 9091  
fa-info@sg.pepperl-fuchs.com

**PF** PEPPERL+FUCHS

## Technical Data

Series	Performance Line	
Measured variable	Vibration velocity Temperature	
Measurement range		
Vibration velocity	v-rms	0 ... 16 mm/s
Temperature	-40 ... 125 °C (-40 ... 257 °F)	
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****V1-G-3M-PUR-ABG0**

Female cordset single-ended M12 straight A-coded, 4-pin, PUR cable grey, shielded