Vibration sensor

VIM62PL-E0G10-0ME-I420K24

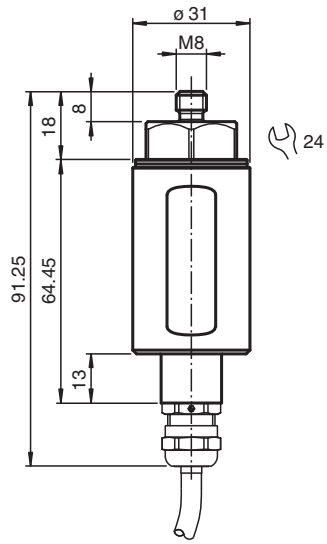
- Extended temperature range
- Screw-in thread for simple installation
- Simple electrical commissioning
- Rugged stainless steel housing
- Vibration acceleration in g via root mean square formation (rms)
- Detection of low frequency vibrations

Vibration sensor with analog current output and increased temperature resistance

Function

The vibration sensor determines the vibration quantity using rms (root meas square) averaging. This form of quadratic averaging or pre-filtering enables precise trend statements about the condition of the application.
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.
The simple mounting allows for commissioning in any application.

Dimensions



Technical Data

General specifications	
Type	Vibration sensor
Measuring technology	MEMS
Series	Performance Line

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Technical Data

Measured variable		Vibration acceleration
Measurement range		
Vibration acceleration	a-rms	0 ... 10 g rms
Measurement accuracy		± 0.01 g (calibration point: 90% of the measuring range; 159.2 Hz) Complies with the tolerance requirements of DIN ISO 2954
Cross-sensitivity		< 5 % of the partial lateral acceleration, which acts exactly 90° to the measuring axis
Frequency range		1 ... 1000 Hz
Averaging time		for a-rms: 12 s
Electrical specifications		
Fusing		external fuse is required: 3 A , semi-time-lag , 30 V DC
Operating voltage	U_B	10 ... 30 V DC
Current consumption		max. 25 mA
Power consumption	P_0	max. 750 mW
Time delay before availability	t_v	10 s (rms filter is calculated intially with measurement data before they are available at the output)
Surge protection		up to 2 kV
Output 1		
Output type		analog output, current output of the vibration variable
Output rated operating current		4 ... 20 mA
Load resistor		≤ 500 Ω
Standard conformity		
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
Approvals and certificates		
UL approval		
Ordinary Location		E468231 cULus Listed, Class III Power Source and limited energy , if UL marking is marked on the product. For use in NFPA 70 Applications only. adapters providing field wiring on request
Maximum permissible ambient temperature		max. 60 °C (max. 140 °F)
Ambient conditions		
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)
Mechanical specifications		
Connection type		cable
Housing material		Stainless steel 1.4305 / AISI 303
Housing length		91.25 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^2
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

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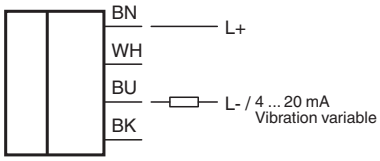
Connection



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.

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

	**RSL6-CS-SC-M55P200**	Protective rubber sleeve for VIM6* vibration sensors against ingress of moisture and mechanical effects
	**MONAD-M08-1,25-M08-1,25K/368**	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
	**MONAD-M08-1,25-M10-1,5/36**	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
	**MONAD-M08-1,25-M30-3,5/368**	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
	**MONAD-M08-1,25-1,2Z-BSPT/36**	Mounting adapter for VIM3*/VIM6* vibration sensors, internal thread M8 x 1.25 x 10, external thread NPT1/2", screw-in depth 24
	**EMCAD-M08-1,25-M08-1,25/36**	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
	**MEC-VIM6-V4A-1.5**	Flexible metal conduit 1.5 m for VIM6 vibration sensors
	**MONAD-M08-1,25-M06-1,0/36**	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
	**MONAD-M08-1,25-M16-2,0/368**	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
	**MONAD-M08-1,25-M20-2,5/368**	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
	**MONAD-M08-1,25-M24-3,0/368**	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

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