

Vibration sensor VIM82PP-S1V16-21E-I422C28

- Suitable for SIL2/PId applications
 - Rugged stainless steel housing
- Vibration velocity in mm/s via root mean square formation (rms)
- Suitable for use in harzadous area up to Zone 1/21 with type of protection explosionproof enclosure

Vibration sensor with safety function both for the analog current output and for the 2 relay outputs with adjustable swichting thresholds



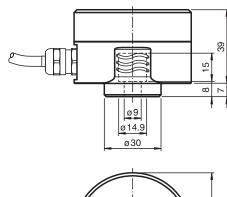
Function

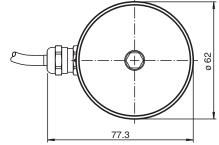
The vibration sensor determines the vibration quantity using rms (root meas square) averaging. This form of quadratic averaging or pre-filtering enables precise trend statements about the condition of the application.

The vibration sensor has a safety integrity level (SIL 2) for usage in functional safety applications.

For monitoring tasks within the scope of functional safety, 2 relay outputs with adjustable switching thresholds are available. With simultaneous evaluation of both relay outputs by a controller, monitoring of a pre-alarm and main alarm thus is possible, e.g. as part of Condition Monitoring. Furthermore there is an approval for the use of the sensor in hazardous areas.

Dimensions





Technical Data

Measuring technology

General specifications

Туре

Release date: 2023-08-03 Date of issue: 2023-08-03 Filename: 70141684-100006_eng.pdf

Vibration sensor MEMS

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

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Vibration sensor

VIM82PP-S1V16-21E-I422C28

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	ATEX approval		

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

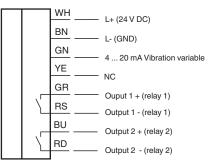
Release date: 2023-08-03 Date of issue: 2023-08-03 Filename: 70141684-100006_eng.pdf

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

VIM82PP-S1V16-21E-I422C28

Technical Data		
Equipment protection level Gb		UL 22 ATEX 2869 X
Equipment protection level Db		UL 22 ATEX 2869 X
Ambient conditions		
Ambient temperature		-40 60 °C (-40 140 °F)
Measuring head temperature		-40 85 °C (-40 185 °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		77.3 mm
Housing width		62 mm
Housing height		46 mm
Degree of protection		IP66 / IP67 only in connected state and correctly mounted housing cover
Cable		
Number of cores		8
Length	L	2 m
Mass		880 g
General information		
Scope of delivery		1 x allen head screw M8 x 20 1 x spring washer M8 1 x seal label
Use in the hazardous area		see instruction manuals Only use accessories specified by the manufacturer.

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

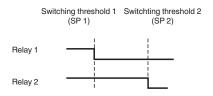
The correct electrical connection and the selection of the appropriate grounding concept are crucial for malfunction-free operation of the sensor. For detailed information you may refer to the manual of the sensor.

3

Vibration sensor

Programming

Adjustable relay outputs



critical state = pre-alarm from SP1/main alarm from SP2 = relay is open = like de-energized state

Accessories

S	RSL8-CS-SC-M55P200	Protective rubber sleeve for VIM8* 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-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-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-M10-1,5/8	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-M12-1,75/8	Mounting adapter for VIM8* vibration sensors, internal thread M8 x 1.25 x 10, external thread M12 x 1.75, screw-in depth 21
	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
ļ	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

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

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