Vibration sensor

VIM62PP-E1V16-0NE-I420KA4

- Extended temperature range
- Screw-in thread for simple installation
- Simple electrical commissioning
- Rugged stainless steel housing
- Vibration velocity in mm/s (rms) acc. to DIN ISO 10816/20816
- Suitable for use in harzadous area up to Zone 1/21 with type of protection explosionproof enclosure
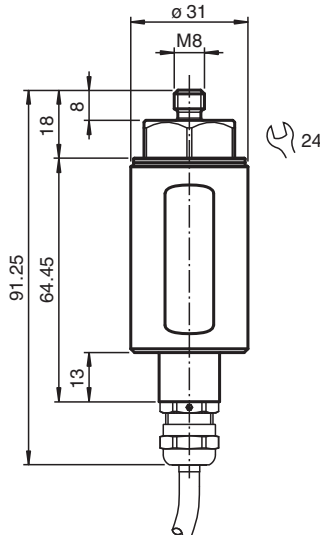
Vibration sensor with analog current output, increased temperature resistance, suitable up to Zone 1/21 with type of protection explosionproof enclosure

Function

The vibration sensor determines the vibration quantity using rms (root 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.
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
Measuring technology	MEMS

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

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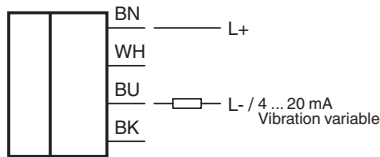Singapore: +65 6779 9091
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PEPPERL+FUCHS

1

Technical Data

Series		Performance Plus Line
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
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 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
Vibration evaluation		DIN ISO 10816/20816
Approvals and certificates		
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
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
Degree of protection		IP66 / IP67 only in connected state
Cable		
Number of cores		4
Core cross section		0.34 mm²
Length	L	10 m
Tension force		max. 80 N (tensile loading directly at the cable, not at the metal conduit if attached)
Mass		740 g
Dimensions		
Length		82.35 mm
Diameter		31 mm
General information		

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PEPPERL+FUCHS   2

Technical Data

Use in the hazardous area	see instruction manuals Only use accessories specified by the manufacturer.

Connection

```
        BN
              ─────── L+
        WH

        BU
              ─[ ]─ L- / 4 ... 20 mA
        BK           Vibration variable
```

Accessories

Accessories for this product can be found on the internet at www.pepperl-fuchs.com.

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.

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