

Vibration sensor

VIM62PP-E1V16-0HE-I420V14



- Extended temperature range
- Screw-in thread for simple installation
- Simple electrical commissioning
- Rugged stainless steel housing
- Vibration velocity in mm/s via root mean square formation (rms)
- Suitable for use in hazardous area for Class I/II and Division 2

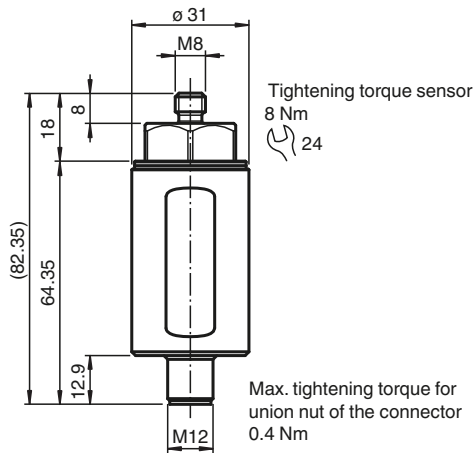
Vibration sensor with analog current output, increased temperature resistance, suitable for Class I/II and Division 2



Function

The vibration sensor determines the vibration quantity using rms (root mean square) averaging. This form of quadratic averaging or pre-filtering enables precise trend statements about the condition of the application. Furthermore, the vibration sensor has an additional output for the output of the measured temperature value. 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 |

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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

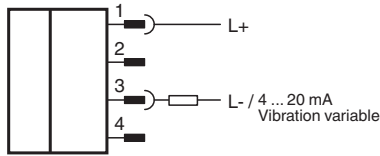
Singapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

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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 initially 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 | |
| Hazardous Location | E106378 | |
| Maximum permissible ambient temperature | max. 60 °C (max. 140 °F) | |
| Control drawing | 116-0492 | |
| 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 | plug | |
| Housing material | Stainless steel 1.4305 / AISI 303 | |
| Housing length | 82.35 mm | |
| Housing diameter | 31 mm | |
| Degree of protection | IP66 / IP67 only in connected state | |
| Connector | | |
| Threading | M12 | |
| Number of pins | 4 | |
| Mass | approx. 200 g | |
| General information | | |
| Use in the hazardous area | see instruction manuals Only use accessories specified by the manufacturer. | |

Connection



Connection Assignment



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 |
|  | 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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