



Sensor-Works

P1 Range Specifications

MEASUREMENTS

Accelerometer Input

Number of Channels: 2 (1 x vibration [x] and 1 x temperature)

Sensor Type: Piezo accelerometer, ultra low power

Max Range: $\pm 25g$

Frequency Range (+/-3dB) 0.3 to 10 kHz

Temperature Input

Temp Measurement Range: $-25^{\circ}C$ to $+75^{\circ}C$

Accuracy: $\pm 4^{\circ}C$

DATA ACQUISITION

Sample Rate: Programmable up to 25.6kHz

Data Block Lengths: 64 to 32768 samples

Spectral Line Equivalent: 100 to 12800 lines

COMMUNICATIONS

Network: Bluetooth 5 (Backwards Compatible to 4.2)

Certifications: Europe: R&TTE

USA, Canada, International: FCC/IC

MECHANICAL

Dimensions: 33mm diameter x 92mm high

Mounting: Internal 1/4-28 UNF thread

ENVIRONMENTAL

Operating Temperature: $-25^{\circ}C$ to $+75^{\circ}C$

Sealing: IP66

Compliance: CE, RoHS

POWER

Battery Life: Up to 5 years (dependent upon measurement intervals)

Replacement: Field Replaceable

Standard version

Order Code: BluVib-PM-V-T-1

Enclosure:

Base: Stainless Steel, Cover: Plastic

Weight:

170g

Battery Type:

Lithium Thionyl Chloride, 3.6V, Size AA, SAFT LS17500

Light Weight Version

Order Code: BluVib-PM-V-T-1-AB

Aluminum Base

Enclosure:

Base: Aluminium, Cover: Plastic

Weight:

100g

Battery Type:

Lithium Thionyl Chloride, 3.6V, Size AA, SAFT LS17500

Standard ATEX version

Order Code: BluVib-PM-V-T-1-ATEX

Intrinsically Safe

Enclosure:

Base: Stainless Steel, Cover: Plastic

Weight:

170g

Compliance:

ATEX, IECEX, UKEX, CE, RoHS

Hazardous Locations:

ATEX II 1G

Ex ia IIC T4 Ga $-25^{\circ}C$ to $+75^{\circ}C$

Battery Type:

Lithium Thionyl Chloride, 3.6V, Size AA, SAFT LS14500

Light Weight ATEX version

Order Code: BluVib-PM-V-T-1-ATEX-AB

Intrinsically Safe

Aluminum Base

Enclosure:

Base: Aluminium, Cover: Plastic

Weight:

100g

Compliance:

ATEX, IECEX, UKEX, CE, RoHS

Hazardous Locations:

ATEX II 1G

Ex ia IIC T4 Ga $-25^{\circ}C$ to $+75^{\circ}C$

Battery Type:

Lithium Thionyl Chloride, 3.6V, Size AA, SAFT LS14500

Specification subject to change
without notice.

For more information please
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Sensor-Works
Wireless Sensors



Sensor-Works

BluVib-P1 Range

Piezo Low Power Wireless Vibration Sensor

4 Variants available

- ◇ Stainless Steel Base
- ◇ Aluminum Base
- ◇ ATEX Stainless Steel Base
- ◇ ATEX Aluminum Base

HIGH PERFORMANCE

Outstanding measurement capability. User selectable operating modes.

SIMPLE INSTALLATION

Simply fix the sensor to your machine, set it running and it measures, unattended for up to 5 years when setup in wakeup mode—sampling 4 times per day.

CONNECTIVITY

Operates with Gateways, PC's, tablets and smart phones.

RUGGED

Suitable for harsh industrial conditions. Corrosion resistant.

WIRELESS OPERATION

Low power radio, with power management, ensuring long battery life.

FLEXIBLE

Available in OEM versions, programmed to suit your requirements.



- Measures 3-single Axis of vibration
Amplitude Range: $\pm 20g$, programmable
Frequency Range: 0.3 to 10kHz
Up to 12800 lines of resolution
- Measures Temperature (-25°C to $+75^{\circ}\text{C}$)
- Up to 70 Seconds capture time
- Self-contained device- mounts directly onto a machine
- Rugged and corrosion resistant
- Field replaceable battery, up to 5 years life
- ATEX variant ATEX II 1G Ex ia IIC T4 Ga -25°C to $+75^{\circ}\text{C}$

An ultra-low power, battery operated, wireless sensor that measures vibration and temperature and can operate stand alone, or in a network of multiple sensor devices.

Operating modes are user programmable:

Wakeup: The sensor is programmed to power on (wake-up) at a user specified interval. It wakes-up and broadcasts its presence. The gateway connects to it. The gateway instructs the sensor to perform a measurement. During the time that the devices are connected, the gateway can change the operating mode and alter any of the other sensor programmable parameters. The gateway disconnects from the sensor. The sensor powers down and remains in an ultra-low power mode until it wakes-up after the specified time interval and the process repeats. This is the recommended mode of operation for best battery life.

Ready: The sensor is initially activated using the magnet, it will remain constantly powered and will respond to communication from the gateway or mobile device as it will continue to advertise indefinitely, but at a reduced power after one minute. This allows consecutive connections to be made to the sensor without the necessity to wake it each time using a magnet. To stop the sensor advertising in this mode, a client must submit a request to power it down. After the sensor has been powered down, a magnet must be used to reawaken it. This mode is particularly suited to applications that run on portable devices, such as tablets. This mode is useful for initial setting up and demonstration, but is not recommended for long term use, as battery life will be significantly reduced.

Event/Triggered: The sensor will wake-up at regular intervals, however, instead of sleeping between captures, the sensor will stay awake to monitor the input signal. If it crosses a programmed threshold, the sensor will continue to capture any post-trigger data required, then it will start to advertise. The client can connect and copy the captured data. Once the client disconnects, the sensor will return to monitoring the input, comparing it with the trigger value.

Logging: The sensor will operate in a nonconnected mode and will at a pre-set interval collect data and store Acceleration, Velocity, Temperature, Battery data until the sensor is woken up with a magnet, when it will download data to a ReST API, or a call to read data from a specific date/time.

For more information on any of our products or services
please visit us: www.sensor-works.com

Issue M Oct 2025



Sensor-Works
Wireless Sensors