



Sensor-Works

BluVib-PM-V-T-3

Tri-Axial Bluetooth Wireless Vibration Sensor

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.

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. Can also be programmed by you. Contact Sensor-Works for details.



- Measures 3 Axis of vibration [x, y, z]
Amplitude Range: $\pm 20g$
Frequency Range: 5 to 10kHz
Capable of 12800 lines of resolution
- Measures Temperature ($-25^{\circ}C$ to $+75^{\circ}C$)
- 16Mb onboard data storage
- Fully compatible with Bluetooth 5 standard
- Self-contained device- mounts directly onto a machine
- Rugged and corrosion resistant
- Field replaceable battery, up to 5 years life

The Sensor-Works wireless tri-axial vibration sensor, is an ultra-low power, battery operated, wireless sensor that measures vibration and temperature. It uses the latest Bluetooth 5 low power wireless communications standard and can operate stand alone, or in a network of multiple sensor devices. Operation is user programmable, from waking up at pre-determined intervals to take vibration and temperature measurements, through near continuous operation, constantly monitoring data and signaling pre-set 'events'. Raw data is then available for transmission to a host device for processing, trending and archiving.

The main components of the wireless sensor comprise of 3 PEIZO accelerometers measuring X, Y and Z axis acceleration, firmly bonded to a stainless steel base to ensure maximum signal quality. With power/wake-up control and a low power radio module. The field replaceable battery is contained in a sealed compartment and the device mounts, via a screw thread, directly onto the machine which it is monitoring.

The wireless vibration sensor provides a solution for condition monitoring of rotating machinery. It is used primarily in process industries where common applications are monitoring of motors, fans, pumps, gearboxes etc. The device provides data from which overall values of vibration, bearing condition and temperature (often referred to as process variables) as well as high resolution spectra of vibration and bearing envelope, can be determined.

When compared with wired alternatives, the wireless vibration sensor offers the advantages of extreme ease of installation and battery life up to 5 years.

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



Sensor-Works
Wireless Sensors



BluVib-PM-V-T-3 Specification

MEASUREMENTS

Number of Channels:	4 (3 x vibration [x, y, z] and 1 x temperature)
Accelerometer Input	
Sensor Type:	Programmable Piezo accelerometer, ultra low power
Nominal Sensitivity:	50mV/g standard (100mV/g, 200 mV/g, 500mV/g option)
Measurement Range:	±25g
Frequency Range (+/-3dB):	5 to 10 kHz on X, Y and Z axis
Resonant Frequency:	25kHz
Amplitude Linearity :	±1% typical in passband
Dynamic Range:	>70dB
Temperature Input	
Temp Measurement Range:	-25°C to +75°C
Accuracy:	±3°C,

DATA ACQUISITION

Resolution:	0.01g
Sample Rate:	Programmable up to 25.6kHz
Anti-Aliasing Filter:	Compound analog/digital
Data Block Lengths:	64 to 32768 samples
Spectral Line Equivalent:	100 to 12800 lines
Modes:	Continuous, Wake-Up, Triggered ('g' level) Manual wake-up via magnetic switch

PROCESSING

Processor:	Ultra Low Power, 32 bit
Data Memory buffer:	Up to 16Mb
Configuration:	Over Radio Network
Programming:	Firmware upgrades over radio network (OTA)

COMMUNICATIONS

Network:	Bluetooth 5 (Backwards Compatible to 4.2)
Certifications:	Europe: R&TTE USA, Canada, International: FCC/IC

MECHANICAL

Enclosure:	Base: Stainless Steel, Cover: Plastic
Weight:	170g
Dimensions:	33mm diameter x 92mm high
Mounting:	Internal ¼-28 UNF thread

ENVIRONMENTAL

Operating Temperature:	-25°C to +75°C
Sealing:	IP66
Compliance:	CE, RoHS

POWER

Battery Type:	Lithium Thionyl Chloride, 3.6V, Size AA, SAFT LS17500
Battery Life:	Up to 5 years (dependent upon measurement intervals)
Replacement:	Field Replaceable

Specification subject to change without notice.

For more information on any of our products or services please visit us at:

www.sensor-works.com

Sensor-Works Ltd.
Alba Innovation Centre,
Alba Campus,
Livingston,
West Lothian EH54 7GA

Phone: +44 (0)1506 592356

Issue H: Oct 2025



Sensor-Works
Wireless Sensors