

VibeSense

Wireless Vibration Sensor



Motionics VibeSense wireless accelerometer is a wireless sensor solution for condition monitoring of rotating machinery. It packs a piezoelectric accelerometer, a powerful onboard processor and a Bluetooth Low Energy radio module.

The piezoelectric accelerometer sensor guarantees accurate acceleration measurement in various industrial applications. The powerful processor provides onboard calculation capability for FFT, RMS calculation, peak finding, as well as raw signal collection with user configurable sampling rate and data block size. The Bluetooth Low Energy module enables communication with smart devices to allow user to send commands to the accelerometer to initiate data collection for onboard processing or transmitting back for further analysis on a phone or tablet. Without the hassle of data cable, measurements can be made more efficiently and safely.

VibeSense runs on a rechargeable Li-Po battery with Qi wireless charging enabled.

Connecting laser tachometer through the connector on top turns VibeSense accelerometer into a novel rotor balancing tool. With the step by step guide in our mobile App, anybody is able to accomplish single plane and two plane rotor balancing effortlessly.



Bluetooth Low Energy



Rechargeable with Wireless Charging



Dust/Water Proof for Industrial Environment



Frequency-Domain FFT Viewer



Vibration Meter ISO 10816



Time-Domain Signal And Logger



Included in the Package:

- VibeSense Wireless Accelerometer
- Qi Wireless Charging Pad
- 1/4-28 Accelerometer Mounting Set Screw
- Magnet Key for Sensor on/off Switch
- Protective Carrying Case
- License for the Vibration App (iPhone and iPad)

Optional:

- iPad Mini 4 with Industrial Protective Case
- Two Pole 85 lbs Magnetic Base
- Adjustable Laser Tachometer Sensor (For Balancing)
- Laser Tachometer Extension Cable (For Balancing)
- Laser Tachometer Holder (For Balancing)

Software Features:

- Wireless connection via Bluetooth Low Energy
- Multiple sensor connectivity
- ISO10816-based vibration meter
- Vibration time waveform signal recording
- Adjustable sampling rate to read high and low freq. signals
- Adjustable data block size for FFT
- Time signal waveform viewer
- FFT spectrum viewer
- Acceleration and velocity spectrum
- Auto and manual vibration peak picker
- Metric and imperial unit selection
- Time waveform and FFT spectrum export in CSV
- Bearing frequencies
- Gear mesh frequencies

| VibeSense | Specification |
|----------------------------------|--|
| Accelerometer Type | Piezoelectric |
| Sensitivity | 100 mV/g |
| Measurement Range | ± 20 g |
| Frequency Range (± 3 dB) | 0.32 – 10k Hz |
| Resonant Frequency | 25k Hz |
| ADC | 16 bits / Sampling Rate: 200 to 20k Hz |
| Data Block Size | 256 to 16384 samples |
| Spectrum Measurement Range | 1 to 10k Hz |
| Wireless Data Transmission Range | Up to 20 m |
| Operating Temperature | -20 to 60 °C |
| Dust/Water Protection | IP66 |
| Battery | Rechargeable Li-Po battery |
| Charging | Qi Wireless Charging |
| Battery Life | 50 hours |