VibeSense Balancer

Wireless Rotor Balancing Sensor

Motionics, LLC

Motionics VibeSense wireless balancer is a novel rotor balancing tool. It consists of VibeSense wireless accelerometer and a miniature laser tachometer sensor.

VibeSense wireless accelerometer utilizes a piezoelectric accelerometer to guarantee accurate acceleration measurement. It has a powerful onboard processor to process both accelerometer and tachometer signals, perform FFT and calculate vibration and phase readings for rotor balancing. Wireless signal transmission is achieved by Bluetooth Low Energy that allows users to directly communicate with the sensors and perform balancing work on a smart phone or tablet.

The miniature laser tachometer can be attached to the VibeSense wireless accelerometer through the connector on top for phase measurement. With the included right-angle adapter, users can easily adjust and target the laser at any spot on the testing rotor. An extension cable can also be used to extend the laser reach.

Both single plane and two plane, inbound and overhung balancing are supported in our mobile App. With the animated step by step guide, anybody is able to accomplish rotor balancing work effortlessly. After balancing, a PDF report will be generated and saved for further assessment.

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

Bluetooth Low Energy

Rechargeable with Wireless Charging

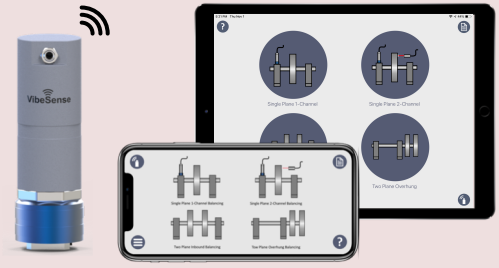
IP66

Dust/Water Proof for Industrial Environment

Attachable/Adjustable 360˚ Laser Tachometer

Single Plane Balancing (4-runs & 2-channel Methods)

Two Plane Balancing (Inbound & Overhung)



Included in the Package:

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

Optional:

- iPad Mini 4 with Industrial Protective Case
- Two-Pole 85-lbs Magnetic Base

Software Features:

- Wireless sensor connection via Bluetooth Low Energy
- Multiple sensor connectivity
- Supports single plane and two plane balancing
- Supports inbound and overhung
- Polar plot for vibration and trial/correction weights
- Step by step guide for balancing
- Angular mass distribution calculator
- Weight removal calculator
- Permissible residual imbalance tool
- ISO10816 based vibration meter
- Vibration raw signal recording
- Vibration signal FFT spectrum viewer
- Balancing PDF report

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
Wireless Transmission Range	Up to 20 m
Operating Temperature	-20 to 60 °C
Dust/Water Protection	IP66
Rechargeable Battery	Li-Po battery w/ Qi Wireless Charging
Battery Life	24 hours
Laser Tachometer Attachment	Attachable 360˚ Adjustable
Laser Sensor	Class IIIa Wavelength 650nm

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The software & hardware can be customized.
Contact Motionics for details.