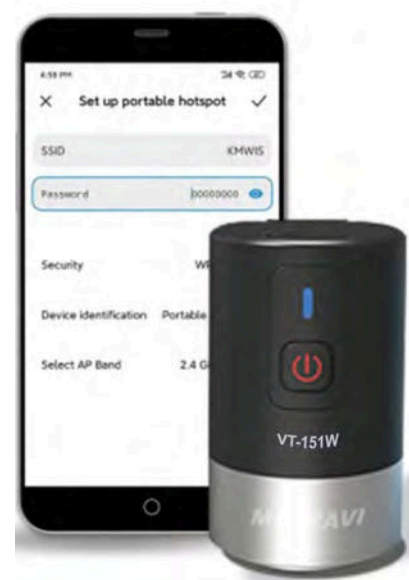


INTRODUCTION

The Metravi VT-151W Wireless Vibration Tester is a portable Single Axis Piezo-electric Wireless Accelerometer which operates on Android Mobile / Tab. A Revolutionary Tool for Industrial Maintenance and Engineering Applications. It is a wireless, ultra-low noise accelerometer with 10 kHz bandwidth that exceeds the characteristics above all of most conventional accelerometers.

This state-of-the-art product is designed to help maintenance teams and engineers in various industries to identify and monitor vibration levels in rotating machinery, such as motors, pumps, fans, compressors, and turbines, amongst others.

It is a non-contact device that uses laser technology to measure the vibrations of machinery. It is easy to use, portable, and highly accurate, making it an indispensable tool for industrial maintenance and engineering applications.



FEATURES

- **Wireless Technology for Remote Control and Monitoring:** Allows the user to remotely control and monitor the vibration levels of their machinery. This gives maintenance teams and engineers greater flexibility and convenience, as they do not need to be physically near the machinery while taking readings.
- **Can be connected to a computer, tablet, or smartphone, using Wi-Fi or Bluetooth:** enables real-time monitoring and data analysis. Allows the user to track and record the vibration levels of different machines over time, detect early signs of wear and tear, and prevent breakdowns or failures.
- **Laser Technology for Precision and Safety:** Ensures high accuracy and precision, as it detects the slightest movements or deviations in the rotating parts of the machine. The laser technology is non-contact, meaning that the device does not need to be in direct contact with the machinery. This feature increases the safety of the user, as it eliminates the risk of physical contact with rotating machinery, which can be hazardous.
- **Easy to Use:** Features a user-friendly interface, and the user can choose between different measurement modes, such as time waveform, spectrum, and envelope, depending on their needs; easy even for non-specialist personnel.
- **Built-in Analysis for All Bearings of Leading Brands*:** Measurements can be analysed against given standards for most Bearings models available in the built-in Bearing Database.
- **Lightweight, Compact, and Portable:** Making it easy to transport and use in different locations. The device comes with its own carrying case, which protects it from damage during transportation and storage.
- **Multiple parameter collection:** Support for multiple signal types: ACC, Vel, Disp, Env, BC, FFT, Time waveform.
- **Wireless Signal acquisition:** Range up to 50 meters (depending on field condition).
- **Ultra low power consumption.**
- **Easy charging and up to 10 hours of operation on a single charge.**
- **Quick installation.**
- **Built-in magnetic suction base.**
- **Premium protection:** IP67 industrial grade dust-proof & splash-proof protection with Explosion proof certification, makes it durable even in harsh conditions.
- **Standard USB connector helping you charging at any time.**

*Bearing brands including SKF, FAG Timken, NTN, Shaeffler, NRB, etc.,

*Technical Specifications & Appearance are subject to change without prior notice

APPLICATIONS

The Metravi VT-151W is suitable for use in different industries that rely on rotating machinery, such as manufacturing, oil and gas, power generation, and transportation.

In the **Manufacturing Industry**, it helps identify and diagnose problems in production lines, such as unbalanced loads, misalignments, and bearing defects, which can lead to reduced efficiency and increased downtime.

In the **Oil and Gas Industry**, it is used to monitor the vibration levels of drilling equipment, pumps, and compressors, which are critical components in the extraction and processing of oil and gas.

In the **Power Generation Industry**, it is used to detect early signs of wear and tear in turbines, generators, and motors, which can result in costly and time-consuming repairs if left undetected.

In the **Transportation Industry**, it is used to monitor the vibration levels of vehicles, such as airplanes, trains, and ships, which need to operate under strict safety and reliability standards.

FUNCTIONS

- VIBRATION METER**



- VIBRATION ANALYSIS**



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• **TIME WAVEFORM & FFT SPECTRUM ANALYSIS**

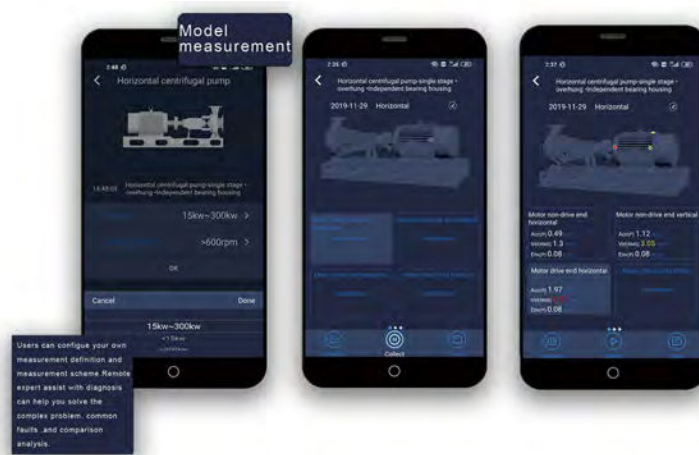
WAVEFORM FUNCTION



SPECTRUM FUNCTION



• **CUSTOMISED MEASUREMENTS**



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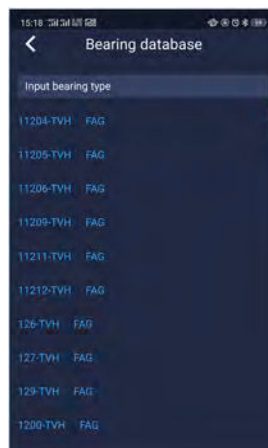
• INTELLIGENT FAULT DIAGNOSIS



• MULTIPLE SENSORS CONNECTION



• BEARING ANALYSIS AGAINST INBUILT BEARING DATABASE



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TECHNICAL SPECIFICATIONS

Sampling frequency	Max 25.6 KHz
Sensing element	Piezoelectric / Annual shear mode
Full scale	50g
Signal-to-Noise ratio	> 80 d
Frequency response	± 3dB 0.4 Hz - 10 KHz
Accuracy	±5% @150 Hz, 1g
Signal	RMS, Peak, peak to peak, Bearing status value
FFT resolution	6400 lines
Waveform type	Acceleration, Velocity, Displacement, Envelope
Bearings condition	BC<1, Well; 1<BC<2, Lubrication; 2<BC, failure
Measurement duration	3s typical (affected by distance & communication)
Frequency range	Velocity & Displacement (10 ~ 1000 Hz); Acceleration (2 ~ 5000Hz)
Vibration setup	Automatic definition of the measurements based on the machine class
Dimensions	41.8 x 69.4 mm
Weight	228 g
Mounting	M6 threaded hole
LED indicator	Red, Green, Blue
Operating temperature	-30°C to 70°C
Protection	IP67
Explosion proof	Exib IIC T4 Ga
ISO standard	Compliance ISO 10816-3
Humidity	0% to 95% RH
Battery	Li-ion Rechargeable
Battery Life	More than 10 hours (continuously)
Battery Charging	1 - 2 hours
Capacity	750mAh
Wireless protocol	Wifi point to point
Wireless range	Upto 50 meters depending on the environment
Standard mobile system compatibility	Android



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