Vibration Sensor   VB-800ML

Wireless
Vibration Temperature Sensor

What is VB-800ML?

① Wireless (BT) Vibration + Temp. Sensor

② With Built-in Micro-controller, able to do edge computation: Machine Learning and FFT

③ Support Direct Connectivity with Mobile APP (No Gateway Required)

④ Battery-Operated (3-Yr)
No need Power Wiring, No need Network wiring,
No need any Network Environment

⑤ DIY 47-KG Pulling Resistance, 3M Industrial Grade Tape

VB-800ML, what is it used for ?

To report motor's Health conditions and electricity waste. These are Key Information for the users to make timely and accurate decisions for maintenance and even replacement.

What are the Benefits to large motor users ?

The VB-800ML provides Electricity Waste estimation of operating motors, it would be better felt and appreciated by the users. It is a compelling feature.

Key Features

▸ **Stick and Play**
Easy to install it and use it immediately

▸ **No power cord required**
Battery powered, up to three years lifetime

▸ **No wired network required**
Wireless transmission (Bluetooth)

▸ **Data upload**
The mobile APP supports data export to the remote database for AI computing

▸ **Exclusively provide a variety of high-tech data display**
RMS, FFT, Raw Data, Health (H) Index, Temperature

▸ **Machine Learning and Health Indices**
VB-800ML algorithm calculates the vibration median and generates Hx.

▸ **Estimation of Electricity Waste due to Motor degradations :**
Look for Top-2 Causes for electricity waste
① Misalignment and ② Imbalance
   - Besides Top-2, there are other degradation items, which are included in the H-index correlation calculation
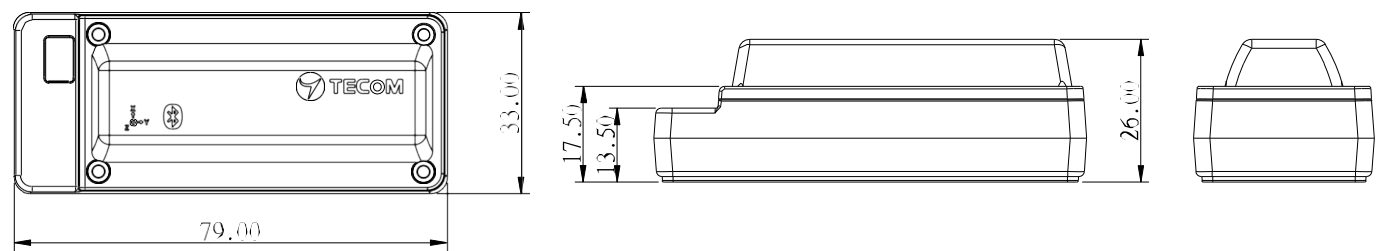   - Predictive Maintenance Schedule

VB-800ML
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Product Specifications

	Item	Specifications
Sensing	Vibration	Sensitivity range: ± 16g(max), ± 8g(default) Frequency Response: 1 Hz to 1800 Hz ±3dB Default filter: 10~1000 Hz for ISO2954 Sampling frequency: 8000 Hz
	Temperature	Measuring the temperature of the contact surface, measuring range: -40℃~75℃, accuracy: ± 1℃ 75℃~85℃, accuracy: ± 2℃
Transmission	Transfer method	BLE 5.0, available range ≦ 30 Support APP near-end reading Timed transmission (with BLE GW)
	Output data	RMS, FFT, Raw Data, Temperature, Health index
Power supply	Power supply mode	Battery power supply (user can replace the battery)
	Battery life	3 years
Mechanism	Maximum weight	39g (without battery)
	Machine material	PC
	IP rating	IP66
	Size	79(L)*33(W)*26(H)mm
Environment	Installation method	Paste
	Operating temperature	-40℃ ~ +85℃
	Storage temperature	-40℃ ~ +85℃

Product Size

79 x 33 x 26mm

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Application

VB-800ML by itself, NO NEED of Gateway

1. Install VB-800ML on a motor, no power cable, no network cable.

2. Maintenance staff walk close to the motor, use smart phone (Bluetooth Mode) APP to wake up the VB-800ML, receiving current vibration/temperature/electricity-wasted% data and the saved data from previous periodic measures.

3. NO NEED of Gateway. VB-800ML acting alone to supply health and electricity-wasted% data at near end (smart phone), and export the data to far end (MHEW Cloud or Server).
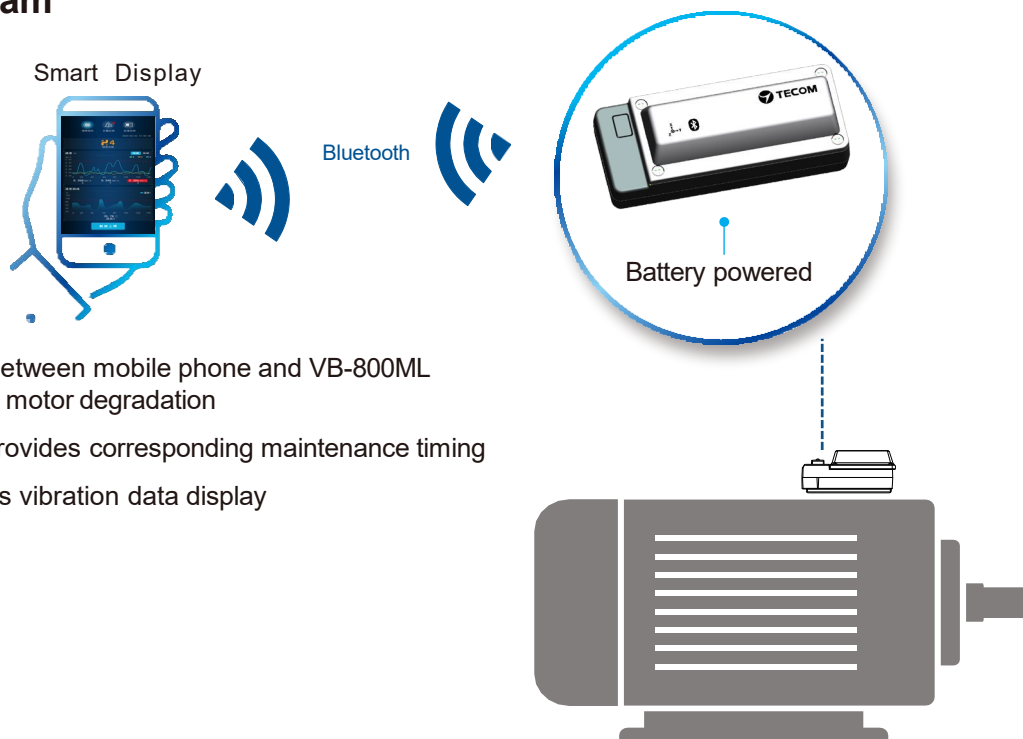
Application

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Application Diagram

Smart Display

Bluetooth

Battery powered

1. Quick connection between mobile phone and VB-800ML
2. Extra electricity by motor degradation
3. The health index provides corresponding maintenance timing
4. Real-time three-axis vibration data display

APP Functions :

1. Health Index

‐ H1 ~ H9

   (H1 needs shutdown immediately

   H9 is fully healthy)

2. Estimated Electricity Waste Bill

3. Vibration Value
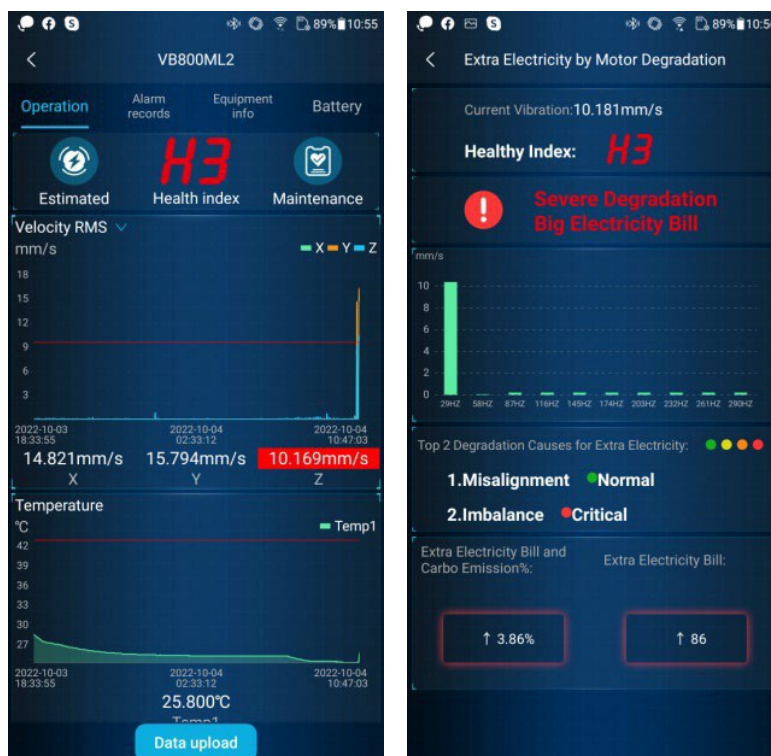
   - Velocity RMS/FFT

   - Acceleration RMS/FFT

4. Temperature

   - Single point temperature

5. APP Alarm

   - Alarm display

   - Alarm record query

6. Data Upload