TECO MOTOR VIBRATION VB-800

IP66 Industrial Grade Motor Vibration Meter

TECO's VB-800 Wireless Vibration and Temperature Sensor is an innovative product that combines vibration, temperature sensing and bluetooth communication.

Normally installed on rotating motors, the VB-800 sensors provides three-axis vibration of velocity and acceleration data in an RMS (Root Mean Square), FFT (Fast Fourier Transform) and in raw data format while still providing a single point for temperature monitoring.

Customers can read all the monitoring data on their mobile phones and upload to the remote management platform called the Machine Health Management Platform (Mhm-P) to perform functions such as storage, trend comparison, diagnostic analysis and reports.The VB-800 can be partnered with a dedicated AG-800 gateway to provide real time vibration and temperature data for online monitoring reports.

Battery life is dependent on the frequency of data acquisition.
The condition for battery life 3 years: VB-800 wakes up every five minutes, sending broadcast data for 15 seconds, and captures vibration temperature data every 180 minutes.

FEATURES

- Built in Bluetooth Low Energy (BLE)
- Works with mobile phone App or Bluetooth gateway AG-800
- Tri-axial Vibration
- Single Point Temperature
- RMS (velocity/acceleration), FFT (velocity/acceleration), Raw Data
- Every 60 minutes (default, adjustable) to capture vibration temperature data

- Battery-powered
- Built-in Memory to save 720 batches of periodic measured data
- Support Near-end App reading and Database export.

SPECIFICATIONS

- Sensitivity range: ± 16g (max), ± 8g (default)
- Frequency range: 10 ~ 1000 Hz for ISO-2594
- Sampling frequency: 8000 Hz
- Contact surface temperature measurement range and accuracy:
    - » $40^{O}C \sim 75^{O}C$, accuracy: ± $1^{O}C$
    - » $75 \sim 85^{O}C$, accuracy: ± $2^{O}C$
- BLE 5.0, available range < 30m
- Battery power supply (replaceable)
- Battery life 3 years *(note 1)
- Size 79 (L) * 33 (W) * 26 (H) mm
- Operating temperature: $-40^{O}C \sim +85^{O}C$
- Storage temperature: $-40^{O}C \sim +85^{O}C$

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Application Diagram

Smart Display

Battery Powered
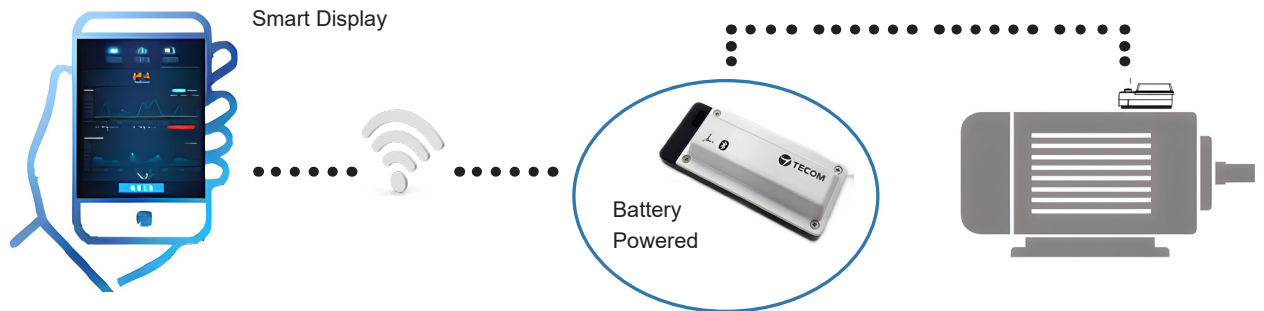
» Quick connection between mobile phone and VB-800
» The health index provides corresponding maintenance timing
» Real-time three-axis vibration data display

APP Function
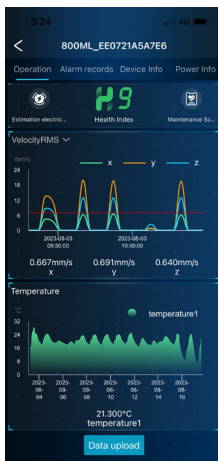
Health Index
» H1 ~ H9 (H1 needs shutdown immediately, H9 is fully healthy)

Vibration Value
» Velocity RMS/FFT

Acceleration RMS/FFT
» Single point temperature

APP Alarm
» Alarm display
» Alarm record query

Data Upload

VB-800 + App + Database

Install VB-800 on a motor, no power cable or network cable required.

1. Maintenance staff walk close to the motor, use smart phone (Bluetooth Mode) APP to wake up the VB-800, receiving current vibration/temperature data and save data from the previous periodic measures.
2. This solution does not need a gateway, VB-800 can provide near-end check up via VB-800 APP
3. If the user has the database, the maintainer can also upload the measurement information for management to view, and at the same time obtain the data analysis service provided by the database.