

## Unmanned Inspection Solution for Electric Motors (Rotating Machines)

In factories, there are many types of motors, and most of the motors are generally small and medium-sized. The health of these motor is very critical. Periodical inspections are been practiced to measure vibration and temperature to ensure motors health as vibration and temperature are key vital signs. Manual inspections however are time consuming and difficult to implement with required accuracy. Tecom unmanned inspection solution automate the collection of the vibration, temperature measurement of electrical motors (rotating machines). Out solution is easy to install and operate.

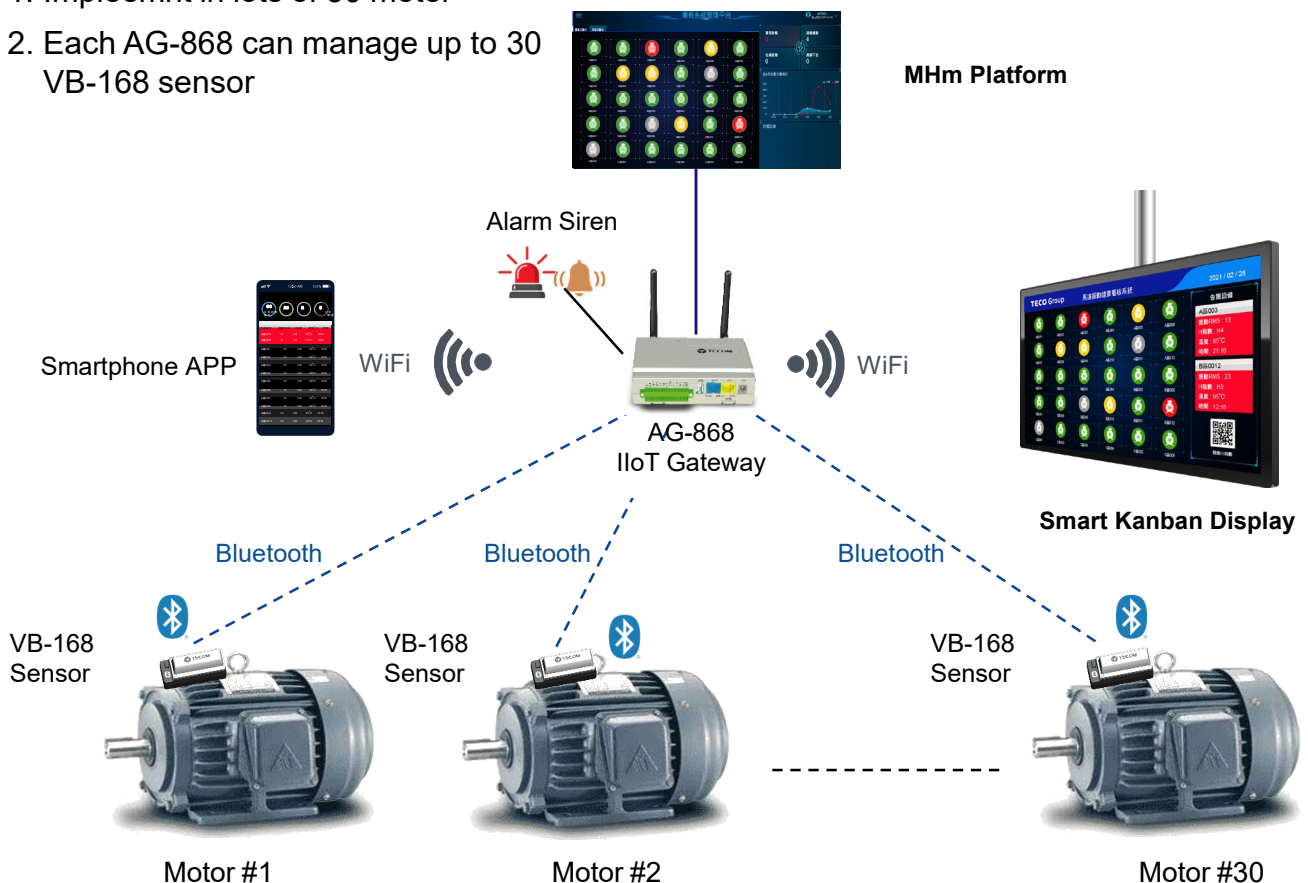
Our “Unmanned Inspection Solution” can be implemented in lots of 30 meter<sup>2</sup> AG-868 IoT gateway is usually positioned at the center of the lot. VB-168 Bluetooth vibration-temperature sensors are effortlessly stucked to each motors within this lot. Installation can be done easily in a few hours if not less. Implementation can be expanded to cover the entire factory by repeating this installation process to cover hundreds, thousands of motors. Each AG-868 works with up to 30 VB-168 sensors. Increase the number of AG-868 to scale up to cover the whole plant.

VB-168 can be configured to measure 3-axis vibration and temperature every 15 or 60 minutes, and then transmit the measurements every 5 or 15 minutes to VB-868 gateway via Bluetooth Low Energy 5.0 (BLE 5.0). Tecom provides 3 convenient approaches to monitor motor health.

1. A Smart Kanban Display can be mounted in the shop floor for easy viewing of motor health
2. Our MHm Mobile Health Management platform can be installed in central office to manage motor health, record measurements, monitor trend in graphs, manage IoT gateway and sensors.
3. Tecom provides iOS and Android App to monitor motor health and receive alert notifications on-the-go.

1. Impleemnt in lots of 30 meter<sup>2</sup>

2. Each AG-868 can manage up to 30 VB-168 sensor



MHm-KB Platform Provides:

Real-Time Measurements / Alert Notifications / Alert Measurements/ Alert History Lookup

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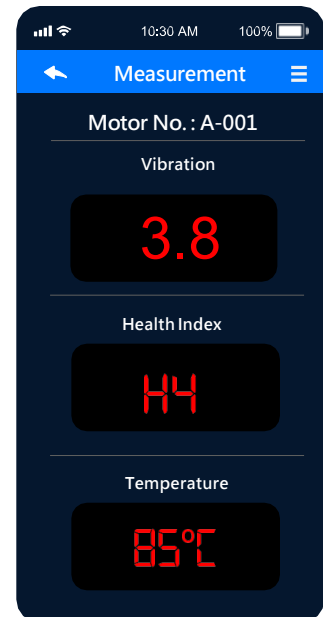
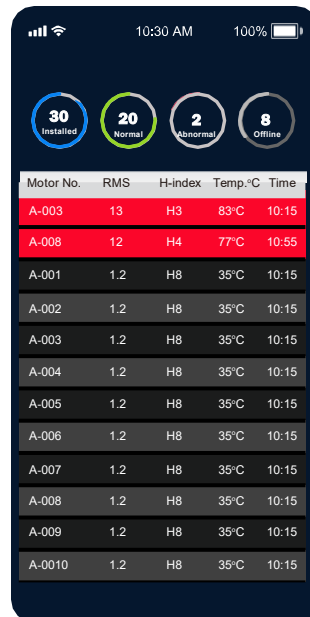
## Main Components

The VB-168 Bluetooth vibration temperature sensor is an innovative product that combines vibration, temperature sensing and Bluetooth communication. VB-168 can be installed on small and medium-sized motors. It automatically reports the vibration and temperature of the motor to AG-868 gateway via Bluetooth at regular intervals. The AG-868 receives vibration measurements of the motor and calculates Tecom's market unique Health (H) index. AG-868 then provides 3-axis RMS, temperature and Health index to MHm platform, Smart Kanban Display and Smartphone Apps.

### VB-168 Bluetooth Vibration-Temperature Sensor



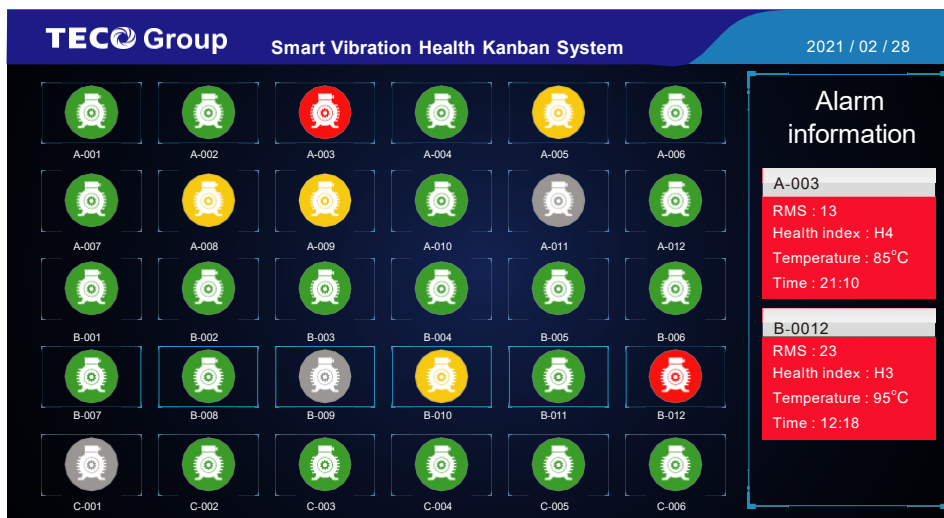
### Smartphone App (iOS / Android)



### AG-868 IIoT Gateway



### Smart Kanban Display



- Smart Kanban Display requires Android 6.0 or above.

### Provides :

- Motor number
- Health light (● Normal、● Warning、● Alert、● Offline)
- Alarm information (Vibration RMS、Health Index、Temperature、Alarm time)