

## BoB ASSISTANT® Predictive maintenance assistant



**BoB ASSISTANT** makes a thorough analysis of the vibration signature of an industrial piece of equipment, ensuring its remote condition monitoring. The data is transmitted via a public or private LoRaWAN® radio frequency network.

### APPLICATIONS

- Supervision of industrial installations equipped with motors (pumps, ventilation, cooling unit, ...)
- Optimization of maintenance operations

### BENEFITS & FEATURES

- LoRaWAN®, Class A
- Easy to install and use
- > 3,5 years of autonomy
- AtEx zone 2 approved (zone 1 exists)
- Measuring ranges / accuracies:
  - Vibration: 0-400Hz/± 3Hz and 0-12.4kHz/± 100Hz
  - Temperature: -20°C to +55°C / ± 1°C

### CERTIFICATION

- RED, UKCA, RoHS
- AtEx Zone 2 version available according to marking:
  - Ex II 3 GD
  - Ex ic IIC T4 Gc
  - Ex ic IIIC T135°C Dc
  - -20 ≤ Tamb ≤ +50°C

**BoB ASSISTANT®** monitors the vibration signature of a piece of equipment (pump, ventilation, etc...). After a learning period of 7 days, the sensor alerts in case of vibration drift, allowing maintenance teams to intervene before a breakage or failure. Data transmission over the LoRaWAN® network is done periodically or immediately in case of alert:

- Exceeding the vibration drift threshold (adjustable)
- Machine on/off (adjustable)

Installation and commissioning are quick and easy.

The sensor is equipped with:

- A button for activation and deactivation,
- An RGB LED to monitor configuration and pairing to the network,
- 2 magnets to facilitate the installation of the sensor on the equipment (also possible by gluing, riveting, screwing...).



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FRANCE



Each sensor is identified by a QR code on the label.

The data pre-processed by the on-board artificial intelligence is gathered in a report transmitted over the LoRaWAN® network every 180 minutes.

The sensor periodically reports the machine's operating time over the last 180 minutes, the rate of vibration drift recorded over this period, the battery level, the temperature, and a predictive failure probability.

Machine status alerts (Start/Stop) are also available (can be inhibited by Downlink control).

Powered by a 3.6V/2100mAh battery, the autonomy of the sensor is more than 3 years with a configuration of 8 transmissions per day.

Machine vibration knowledge is stored in flash, and applied back when the device is restarted, or battery is replaced.

Machine vibration knowledge and battery values can be reset either through the HMI interface or network Downlink command.

### THE LARGEST IOT PRODUCTS RANGE FOR YOUR PROJECT

WATTECO is a European leader in the design and manufacture of smart IoT devices to suit all remote reading and data collection solutions.

WATTECO is a LoRa Alliance® member.

