



# 1-CHANNEL ULTRASOUND SENSOR SPECIFICATIONS

## Sensor & Gateway

### Features

- Industrial Grade 1-Channel Ultrasound Vibration Sensor
- Resonant frequency  $F_{res} = 37$  [kHz] +/- 1 [kHz]
- Measuring range 20 to 100 [dBμVRMS]
- Resolution 0.5 [dBμVRMS]
- Multiple sensor readings per day
- 2 Mile Line-of-Sight Range with On-Board Antenna
- Superior Line-of-Sight Range of up to 28 Miles with High-Gain Antennas
- Wireless Mesh Networking using DigiMesh®
- Validates and Retries Lost Communication Packets

### Sensor Environmental and Regulatory Qualifications

- Temperature Operation Range -20°C to +70°C (-4°F to 158°F)
- Frequency Range Bandwidth 1.56Hz-6.4kHz
- IP 65 Rating
- RoHS Compliant

### Sensor Data

- Recommended Cable Length: 30m/ 100ft.
- Recommended Tightening Torque: 2 [N.m]/ 17.7 [lbf.in]
- Band-pass Frequency: +/- 2 [kHz] centered on  $F_{res}$
- Detector Type: RMS
- Output Range: 4 to 20 [mA]
- Sensitivity: 0.2 [mA/dBμVRMS]
- Batteries - 6AA (L91)
- DC External Power from 6-32VDC
- Housing: Stainless Steel
- Connector Plate: Aluminum
- Holster: Nitrile Butadiene Rubber
- Connector: M8-4 pin- Male

### Gateway

Actual Size: 13.75"L (with antennae) x 5.5"W x 2.5"H



### Sensor

Actual Size: 1.42"W x 3.23"H



### Specifications

- Wireless Frequency 900MHz or 868MHz
- 128bit AES encryption
- Sensor Height: 3.23"
- Sensor Weight: 126g
- Gateway: 13.75"L (with antennae) x 5.5"W x 2.5"H
- Gateway Weighs 1.15 lbs

### APPLICATION

Monitors a wide-range of rotating machinery, including but not limited to:



Motors, Pumps, Fans



Gearboxes



Turbines



Rollers & Bearings



HVAC Systems

## Software

### Dashboard

- Easy to understand decibel charts
- Sensor automatic scaling to decibel range detected
- Easy to configure notification features designed to reduce alert fatigue

### Customization

- Easily map your equipment with your terminology
- Dynamic auto-scaling measuring range 20 to 100 [dBμVRMS]
- Resonant Frequency  $F_{res} = 37$  [kHz] +/- 1 [kHz]
- Resolution 0.5 [dBμVRMS]
- Configurable alerts for high or low decibel readings
- Trending of decibel readings over time