

# Vegam

Making Factories Smarter

## vSens Pro

## DATASHEET



Compact Water  
and Dust Proof  
Sensor (IP68)



Long Battery  
Life



Wireless Long  
Range



Remote sensor  
update



Continuous  
Velocity Data



Low Spectral  
Noise



Wide Frequency  
Range



Low RPM  
Applications

**vSens Pro** is a smart Industrial IoT Wireless Vibration Sensor designed for rugged Industrial environment needs. It captures 3 Axis Vibration data and surface temperature of the equipment. The sensor is designed to capture the essential signals necessary to detect defects in wide variety of industrial machinery and equipment. With its wide frequency spectrum, it can monitor both low speed and high speed equipment. The sensor comes with rugged and flexible mounting options to accommodate different types of machines. The device has a long battery life with an off the shelf available battery that can be easily replaced.

| Technical Description          | Specifications                                       |
|--------------------------------|--|
| Number of Axis                 | 3 Axis   |
| Accelerometer Range            | Up to ±64g (configurable)                            |
| Sampling Frequency             | 3 Hz to 25.6 kHz                                     |
| Mechanical Signal Bandwidth    | 0.1 Hz to 8.2 kHz [x, y], 0.1 Hz to 5.1 kHz [z]      |
| Lines of Resolution            | 4096   |
| Accelerometer Sensitivity      | 0.001 mg to 1.95 mg                                  |
| Spectral Noise Density         | 25 $\mu\text{g} / \sqrt{\text{Hz}}$                  |
| Vibration Data Acquisition     | Continuous Velocity RMS (1 sample/ minute)           |
|                                | Periodic Acceleration Raw Data (30 minutes interval) |
|                                | Periodic FFT Spectrum Data (30 minutes interval)     |
| Temperature Accuracy           | ±1°C   |
| Temperature Data Acquisition   | Periodic (30 minutes interval)                       |
| Wireless Connectivity          | BLE 5 Long Range                                     |
| Wireless Range (Line of Sight) | 300 meters   |
| Size (L x W x H)               | 42mm x 42mm x 70mm                                   |
| Weight                         | 134 grams  |
| Sealing                        | IP68 (Water & Dust Proof)                            |
| Mounting                       | Magnet, Adhesive                                     |
| Battery Type                   | Type C, Lithium Thionyl Chloride                     |
| Battery Life                   | Up to 2 years  |
| Operating Ambient Temperature  | -40°C to 85°C  |
| Compliance                     | CE, FCC  |