



Abnormal vibrations or high temperatures give early signs of machine failure due to component imbalance, misalignment, wear or improper use of equipment. These can now be effortlessly identified without manual measurements or expensive wired equipment to increase machine uptime and extend mean time between failures.

Treon Industrial Node is a wireless battery-operated condition monitoring device that measures tri-axial vibration and surface temperature of rotating equipment, such as pumps, motors and compressors.

### **From mesh to any cloud platform**

Treon Industrial Nodes operate in a wireless mesh network for easy, cost-efficient deployment and continuous monitoring of tens or hundreds of machines. Nodes send data directly or via other nodes to Gateways that connect the mesh to any cloud platform over wired or wireless network.

### **Configurable to any need**

Treon Industrial Node can measure acceleration and temperature on configurable intervals or on request. Node can send raw acceleration data for post-processing in the cloud or it can perform mathematical calculations already on the edge and provide per axis RMS, Kurtosis and FFT (1Hz/bin).

### Vibration

- Acceleration measurement on 3-axis Axial, Horizontal and Radial
- Dynamic range +/- 4G (configurable to 2, 4, 8 or 16)
- Frequency range 10-1000Hz
- Sampling rate 6600Hz
- Resolution 16-bit
- FFT resolution 1Hz/bin

### Temperature

- Measurement range -40°C to +85 °C
- Resolution 0.1°C
- Accuracy +/- 2°C (mounting dependent)
- Repeatability +/- 0.1°C

### Wireless communication

- 2.4GHz / Wirepas Mesh

### Battery

- 3.6V lithium thionyl chloride
- Battery lifetime est. 3 years (Battery life is dependent on operating temperature and configuration)

### Dimensions

- 78.5 x 28 mm
- Mounting to M8 thread
- Weight 129g
- Cover material 316 ss
- Top cap material PE HD

### Environment

- Operating -40°C to +85 °C
- Storage 30 °C maximum
- IP68 (dust-tight and resistant to water up to 1m)

### Designed for ATEX \*

- ATEX II 2 G Ex ib IIC T4 Zone 1 & 2
- $-40^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$

### Software

- Fully configurable data delivery and integration to major clouds
- Customer cloud application
- Device management

\* Currently not yet certified