

# INDU-EYE VIBRO

## BATTERYLESS IOT VIBRATION MONITORING

INDU-EYE VIBRO is a *batteryless* solution for vibration monitoring. Our device uses long-range wireless protocols and is particularly designed to be used in hard-to-reach and cost prohibitive environments.

A robust, reliable and easy-to-install *Predictive Maintenance* system allows you to remotely monitor the health of your machinery and predict the most optimal time for maintenance.

### Keep your plant up

Detect proactively performance issues to reduce unplanned downtime.

### Waste Heat powered

Batteryless means forgetting expensive battery maintenance and become eco-friendly.

### Easy installation

*Plug&Play* installation without the need for cables. Long-range wireless protocols (>10 km) require very simple infrastructure compared to low-range protocols, commonly used by competitors, that need gateways or repeaters every few meters.

### Monitoring dashboard

Use our DAEVIS monitoring dashboard tool or any other cloud-based system: Always choose the best settings to make your decisions.

### Fully adaptable

Adaptable to any type of surface, whether flat or circular.

### Flexible and scalable

It does not matter how many Indu-Eye devices you want to install and where, changing and growing your network is very easy!

### Cost and environmental savings

Compared to competitors' wireless solutions (battery-powered), our products reduce the cost of devices, infrastructure, and other recurrent expenses up to 70% and more than 98% of reduction in GHG, energy, heat and water during its lifetime.

### Improve your maintenance tasks

Automate routine operations keep maintenance professionals performing high-value tasks.



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## Wireless and Batteryless IoT Vibration Monitoring

INDU-EYE VIBRO is a system consisting of three main components:

1. The industrial vibration sensor.
2. The wireless IoT device with edge computing and long-range network capabilities.
3. A thermoelectric generator, capable of powering the entire system using heat.



Economical, flexible, scalable and easy to maintain and install, which means that our product is the most competitive solution on the market.

### Use cases

Wireless monitoring system for early detection of faults. It permits to diagnose rotating equipment, check the operation of bearing - gears and test electric motors in the following machines:

- Pumps, motors, fans, compressors, and turbines.
- Centrifugal separators, blowers, agitators, exenders, and heat exchangers.
- Gearboxes, chillers, belt conveyors.
- Rolling bearings.
- Fluid hammer.

### Mean features

Axis	X, Y, Z
Frequency range	Up to 400Hz
Acceleration range	± 4g
Ambient temperature	-20 °C to 50 °C
Exposure temperature	50 °C to 150 °C
Communication	NB-IoT / LTE-M
Data update cycle (sample/hour)	From 1 to 10
Certifications	CE;FCC and ATEX/IECEX ongoing
Mount	Plain or pipe
Degrees of protection	IP67

### Network scenario



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