OXYNODE®

Connecting~Infrastructures

YOUR INFRASTRUCTURE IS SENSITIVE

YOU WANT REAL-TIME MONITORING

FOR GREATER CONTROL OVER MAINTENANCE COSTS

First multi-physical mesaurement sensor
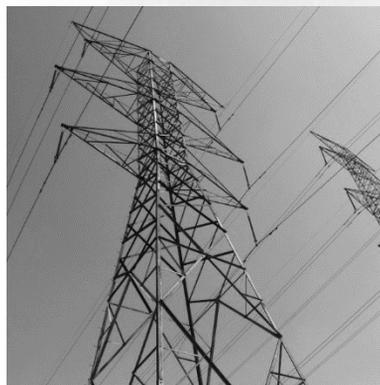with hybrid power supply for continuous Structural Monitoring

MADE IN FRANCE

INNOVATIVE STRUCTURAL MONITORING SOLUTIONS
A single sensor for all your measurements

VIBRATORY SPECTRUM

Continuous vibration analysis
with ultra-low power
consumption and ultra-high
sensitivity

INCLINATIONS XYZ

High-precision sensors for
structural tilt monitoring

IMPACT DETECTION

Shock detection,
characterization and
localization

HYBRID POWER SUPPLY

Innovative power supply with light
energy harvesting combined with a
lithium battery integrated into the
sensors

ADDITIONAL FEATURES

Non-stop monitoring
Integrated data logger
Self-calibration system
Remotely programmable

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Integrity control

OXYNODE®'s advanced IoT sensor technology enables efficient, real-time monitoring of the structural integrity of materials through the analysis of vibration signatures. The sensors can detect anomalies inside materials, characterize them in real time and deduce the overall integrity of the structure.

Stress analysis

OXYNODE® IoT sensors can be used to monitor the state of fatigue of mechanical infrastructures to ensure their proper operation and warn of any anomalies.
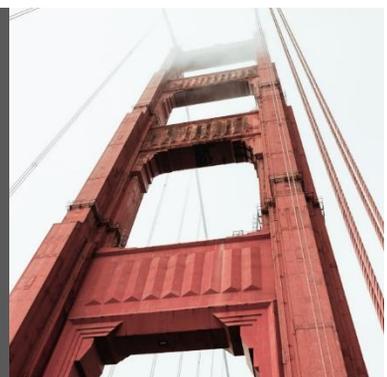
Stability monitoring

OXYNODE® IoT sensor technology ensures proactive maintenance and monitoring of your wind turbine. To guarantee maximum availability, our sensors constantly monitor the structure's vibratory activity and alert you to any structural anomaly.

Position control

In addition to tilt and vibration sensors, OXYNODE® IoT sensors feature RTK GPS technology in a very compact format. The sensors measure the positioning of the megastructure with centimetric precision, to prevent deformation and fatigue.

Measuring nuisance

OXYNODE® IoT sensors also meet the need for vibration monitoring on construction sites to guarantee the safety of people and nearby structures.

Soil analysis

OXYNODE® IoT sensors monitor vibrations, slippage and ground deformation to prevent any risk of landslides or accidents.

Critical asset surveillance

OXYNODE®'s integration of tilt, vibration and position sensors with LoRaWAN® wireless technology enables precise, long-term monitoring of sensitive structures.

Property security

OXYNODE® also offers IoT sensor solutions for property security.

OXYNODE is a French technology start-up that continues to innovate in the field of infrastructure monitoring. Its range of connected sensors incorporates a unique synergy of cutting-edge technologies: Multi-physics measurement, hybrid power supply, continuous monitoring, ultra-low power consumption.

All these innovative solutions, packed in an extremely compact and resistant casing, redefine the monitoring and securing of structural assets.

From design to monitoring and modernization of operational infrastructures, OXYNODE provides unique IoT solutions for predictive and corrective maintenance.

3 Sensor solutions:

OXYNODE® CELL
Hybrid technology

Features :

- High-precision tilting
- Shock analysis
- Vibration spectrum
- Precise 1/128s timestamp
- Hybrid power supply
- Service life 15 years
- IP68 industrial enclosure
- Self-calibration system
- Integrated data logger
- LoRaWAN® network

OXYNODE SYNC (2026)
Hybrid technology

Features :

- High-precision tilting
- Shock analysis
- Vibration spectrum
- Precise 1/128s timestamp
- Synchronized mesh
- Hybrid power supply
- Service life 15 years
- IP68 industrial enclosure
- Self-calibration system
- Integrated data logger
- LoRaWAN® network

OXYNODE RTK (2026)
Hybrid technology

Features :

- High-precision tilting
- Shock analysis
- Vibration spectrum
- Precise 1/128s timestamp
- Synchronized mesh
- RTK GPS
- Hybrid power supply
- Service life 15 years
- IP68 industrial enclosure
- Self-calibration system
- Integrated data logger
- LoRaWAN® network

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