

# Treon Industrial Node X

Treon Industrial Node X captures tri-axial vibration, surface temperature from rotating equipment, and magnetic field data from electric motors. Designed for both critical and non-critical assets, it delivers high-quality, actionable data for analytics – from slow-rotating machinery to variable-speed and intermittently operating equipment.



Harsh Environments\*



Replacable Battery



Tri-axial Vibration



## KEY FEATURES

- ✓ **Broader asset coverage**  
Monitor a wider range of equipment – from slow-rotating and fixed-speed to variable-speed and intermittently operating machinery.
- ✓ **Rugged, industrial-grade design**  
Built for demanding environments with a replaceable battery module, extended radio range, and IP6K9K-rated design for maximum durability.
- ✓ **Smart data delivery for better analytics**  
Capture relevant data only when machines are active. Measure the full drivetrain simultaneously, integrate rotational speed insights, and enhance electric motor diagnostics with magnetic field measurement.

## TECHNICAL SPECIFICATIONS

### Wireless communication

- Wirepas Mesh (2.4GHz ISM Band)
- with 8dBm maximum transmit power
- NFC

### Treon Power module

- Replaceable battery module, including:
- 3.6V lithium thionyl chloride battery
- Lifetime up to 5 years
- (Battery life is dependent on operating temperature and sensor configuration)

### Primary accelerometer

- Triaxial acceleration measurement
- Dynamic range +/- 2, 4, 8 or 16
- Frequency range up to 6300Hz \*\*
- Sampling rate 26667Hz
- Resolution 16bit
- Sensitivity min. 0.061 mg/LSB
- Noise floor 75 µg/√Hz

\*\* Mounting dependent

### Sample amounts

- 10 second sampling time with 26667Hz
- ODR per axis in triaxial measurement

\*\*\*planned for future software update

### Vibration data delivery

- Velocity RMS, PEAK, P2P
- Acceleration RMS, PEAK, P2P
- Crest Factor and Kurtosis
- FFT (Acceleration, Velocity, Envelope)
- Acceleration and Envelope waveform

### Temperature

- Measurement range -40°C to +105°C
- Resolution 0.1°C
- Accuracy +/- 0.3°C
- Repeatability +/- 0.1°C
- Magnetometer
- Triaxial magnetic field measurement
- Frequency range up to 2500Hz
- Range: ±1200 µT (max.)
- Resolution 18bit
- Sensitivity 10 nT/LSB
- Noise floor min. 40 nT rms

### Magnetometer data delivery

- Rotations per minute (RPM)\*\*\*
- RPM variability index\*\*
- RMS, PEAK, P2P
- FFT
- Waveform

### Memory

- Dedicated serial flash for capturing long measurement samples

### Signal processing

- Butterworth high, low and band pass filter
- Configurable dynamic cut offs
- Configurable decimation
- Enveloping

### FFT Calculation

- Sample amount 16384
- Configurable lines of resolution up to 6400
- Hanning Windowing
- Averaging and overlapping

### Real time clock (RTC)

- For accurate sensor time
- 1s accuracy

### Treon Connect compatibility

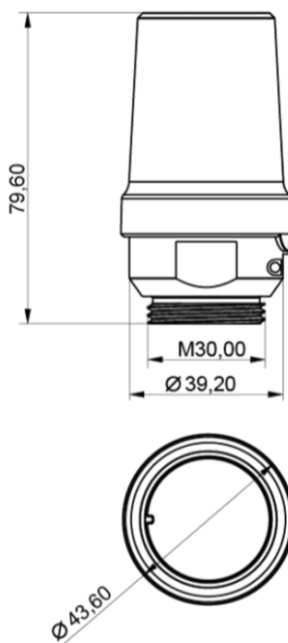
- Available only with a Treon Connect solution subscription

## COMMON SPECIFICATIONS

Dimensions	Weight	Mounting
79.5 × 43.6mm	210g	M30 × 2.0 adapter interface
		30mm direct mounting surface

Materials	
Top cap material	PA
Bottom cap material	304 stainless-steel

Environment	
Operating temperature	-40 to +85
Storage temperature	+10°C to +30°C
IP rating	IP6K9K



## ACCESSORIES

A range of adapters will be available for mounting the sensor with bolt with or without alignment as well as glue / epoxy mounting enhanced with magnet.

Replaceable Treon power module.

## CERTIFICATIONS

Initially Treon Industrial Node X will be available in Europe, United States, Canada and Indian markets. Other countries will follow during 1H/2026.

\*Hazardous area certifications are planned for 1H/2026

## CONTACT

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