

## TECHNICAL SPECIFICATIONS

# Treon Industrial Node X

### Dimensions

79.5 x 43.6 mm  
Mounting to M30 x 2.0 adapter interface  
30 mm direct mounting surface  
Weight 210 g  
Top cap material PA  
Bottom cap material 304 stainless steel

### Environment

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

### Wireless communication

2.4GHz / Wirepas Mesh  
Maximum transmit power 8 dBm  
NFC

### Battery

Treon Power Module – replaceable battery module  
3.6V lithium thionyl chloride  
Battery lifetime up to 5 years  
(Battery life is dependent on operating temperature and configuration)

### Primary accelerometer

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

### Sample amounts

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

### 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 2500 Hz  
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 long sample capture

### Signal processing

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

### FFT Calculation

Sample amount 16384  
Lines of resolution up to 6400  
Averaging and overlapping  
Hanning windowing

### Real-time clock (RTC)

1-second accuracy

