

Data Sheet

Treon Industrial Node 6 Ex

Treon Industrial Node 6 Ex measures tri-axial vibration and surface temperature of rotating equipment, such as pumps, motors, and compressors, with a frequency range up to 6.3kHz in potentially hazardous areas. It is ATEX, IECEx, and HazLoc certified.

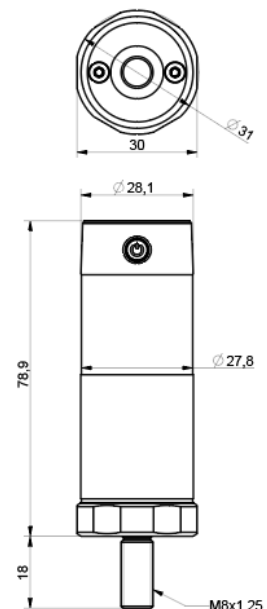


Features

- Frequency range up to 6.3kHz.
- 3-axis accelerometer and temperature sensor.
- Advanced signal processing on the edge calculating key vibration KPIs such as RMS, PEAK, kurtosis, and crest factor - from acceleration and velocity or root-cause analysis through FFTs.
- Battery operated sensor - no wiring needed.
- Operating temperature in hazardous environment -40°C to +60°C.

Common Specifications

Dimensions	Weight	Mounting
78.5 x 28mm	129g	M8 x 1.25 thread
Materials		
Cover material	316ss	
Top cap material	PA	
Environment		
Operating temperature	-40°C to +60°C (hazardous environment) -40°C to +85°C (non-hazardous environment)	
Mounting surface temperature	+60°C (hazardous environment) +85°C (non-hazardous environment)	
Storage temperature	+10°C to +30°C	
IP rating	IP67	



Accessories

Treon Adapters available in [Treon online store](#).

Installation

How to install [Treon Industrial Nodes](#).

Technical Specifications

Wireless communication

2.4GHz / Wirepas Mesh

Battery

3.6V lithium thionyl chloride
Battery lifetime up to 5 years
(Battery life is dependent on operating temperature and configuration)

Software

Fully configurable data delivery

Vibration

Triaxial acceleration measurement
Dynamic range +/- 2, 4, 8 or 16
Frequency range 2-6300Hz (+/-3dB) *
Sampling rate 26.7kHz
Resolution 16bit

* Mounting dependent

Temperature

Measurement range -40°C to +85°C **
Resolution 0.1°C
Accuracy +/- 0.3°C
Repeatability +/- 0.1°C

** limited by maximum operating temperature

Key performance indicators

Velocity: RMS, PEAK, P2P
Acceleration: RMS, PEAK, P2P, kurtosis, crest factor

Sample amounts

Single axis, max. 110592 samples
Triaxial, max. 36864 samples per axis

Signal processing

Butterworth high, low and band pass filter
Configurable low and high cut-off
Decimation configurable, max. ratio 1:9

FFT Calculation

Sample amount 4096
Lines of resolution 1600
Averages, max. 9
Overlap, 0 to 100%
Hanning windowing

Hazardous Location Certifications

ATEX/IECEX
EESF 21 ATEX 014X
IECEX EESF 21.0009X
II 2 G Ex ib IIC T4 Gb
II 2 D Ex ib IIIC T135°C Db
-40°C ≤ Ta ≤ +60°C

US

Class I Zone 1 AEx ib IIC T4 Gb
Zone 21 AEx ib IIIC T135°C Db
Class I, Division 2, Groups A,B,C,D T4
Class II, Division 2, Groups F,G T4
Class III, Division 2
-40°C ≤ Ta ≤ +60°C

North America

UL61010-1/CSA C22.2 No. 61010-1
UL/CSA 60950-22
UL 60079
CSA 60079
E115489

Canada

Ex ib IIC T4 Gb
Ex ib IIIC T135°C Db
-40°C ≤ Ta ≤ +60°C

Certifications

Extensive certifications leaflet available at: [Treon Store](#)

Country	Model 2111	Certified hazardous areas
Australia	Yes	
Brazil	Yes	
Canada	Yes	Yes*
Chile	Yes	
China	Yes	
Colombia		
Ecuador	Yes	
Egypt		
Europe	Yes	Yes*
India	Yes	
Indonesia		
Israel		
Japan	Yes	
Jordan	Yes	
Korea		
Malaysia		
Morocco	Yes	
New Zealand		
Pakistan	Yes	
Peru		
Philippines		
Qatar	Yes	
Saudi Arabia		
Serbia		
Singapore		
Taiwan	Yes	
Thailand	Yes	
Turkey		
United Arab Emirates	Yes	
United Kingdom	Yes	
United States	Yes	Yes*
Vietnam		

* Contact [Sales](#) for more information.

HS code: 8517699000

This patented technology is protected by US Patent 11656239.

Contact

Let's join forces!

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