

Signos

LET THINGS TALK

Line Industry

SiMotor



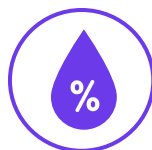
Vibration 3D



Acoustic Emission



Magnetic Flux



Humidity



Temperature



True RPM

OVERVIEW

SiMotor:

- offers flexibility to connect to the internet via its inbuilt ESim which has coverage of over 100+ countries across 350+ network service providers. It measures 6 parameters in one i.e Vibration 3D, Acoustic Emission, Surface Temp, Humidity, True RPM & Magnetic Flux. Comes with Magnetic Mount, Stud Mount, or Adhesives installation options. Simple plug & play hassle-free deployment without worrying about any extra IT infrastructure. Nb-IoT/CAT-M1/LTE/Wifi/Bluetooth available.

Machine Learning:

- Thanks to neural networks, it is possible to predict the remaining useful life with more than 90% accuracy.
- Autonomous learning. Real-time alerts.
- Special algorithms for sensor calibration, which provides a consistent result.

State of health:

- Able to detect shaft and bearing misalignments or cracking, machine imbalances, gear tooth problems and structural problems.
- Improves responsiveness in unattended preventive and corrective maintenance.

True RPM Measurement:

- Direct measurement of the RPM enables highly accurate fault analysis on variable speed machinery. Up to 99% accuracy means better analysis.

Maintenance & Calibration Free:

- Over the Air (OTA) firmware updates avoid time consuming updates or changes and allows for customized sampling strategies to be adjusted, where required.

DIY (Do it Yourself) Configuration:

- Easily Configure and deploy the sensors with ease without any dependency or support

User-friendly Dashboard:

- Empowering User with right data at right time. Dashboard available on web & Android / IOS

Specifications				
Parameters	SiMotor WiFi	SiMotor LTE	SiMotor Lora+LTE	SiMotor Infinity
Power Source	1500 mAh 3.0 V Battery	19,000 mAh 3.6 V Battery	19,000 mAh 3.6 V Battery	Vibration based energy harvesting; Operating Frequency - 30Hz, 60Hz, 85Hz, 110Hz, and 120 Hz
Connectivity Protocol	Wi-Fi: 2.4 Ghz	Cellular: CAT-M1, LTE-M: 12, 2G (GSM1800/900), W,i-Fi: 2.4 Ghz & 5 GHz, Bluetooth: 5.0	Cellular: CAT-M1, LTE-M: 12, 2G (GSM1800/900), W,i-Fi: 2.4 Ghz & 5 GHz, Bluetooth: 5.0	Cellular: CAT-M1, LTE-M: 12, 2G (GSM1800/900), Wi- Fi: 2.4 GHz & 5 GHz
Dimensions	7.8 cm (3 inch) Length and 5.2 cm (2 inch) Diameter	10 cm (3.93") Length and 7.2 cm (2.83") Diameter	10 cm (3.93") Length and 7.2 cm (2.83") Diameter	10 cm (3.93") Length and 7.2 cm (2.83") Diameter
Onboard storage capacity	4MB (avg 500kB/day, 4x VIB TWF/day) Up to 3 days			
Accelerometer	MEMS based sensor			
Operating Temperature Range	Non-Hazardous Area Ambient operating Temp: -40 to 125°C Hazardous Area Ambient operating Temp: -40 to 55°C			
Enterprise-grade Security	AES256 Encryption; Completely encrypted data pipeline			
Measurement Range	Vibration sensor: <ul style="list-style-type: none"> • Range: ±40g • Sensitivity: 0.031 mg/LSB Acoustic Emission sensor <ul style="list-style-type: none"> • Ultrasonic Range: 50Hz to 80kHz • Sensitivity: 26dB FS +/-1 dB RPM <ul style="list-style-type: none"> • Accuracy:99% (10-5000RPM) Temperature <ul style="list-style-type: none"> • IR Resolution: 0.1°C / 0.18°F • Range: -40°C to 120°C / -40°F to 250°F Magnetic Flux <ul style="list-style-type: none"> • Range: Adjustable +/-2 Gauss to +/-200 Gauss • Sensitivity: 0.0002 Gauss to 0.02 Gauss • Sampling Rate: 113 kHz Humidity <ul style="list-style-type: none"> • Range (Relative Humidity): ± 3.5% RH, 20 to +80% RH • Accuracy (LSB): 0.004% RH/LSB 			
Consumption	Ultra-low-power mode consumption down to 8µA (Wifi) or 16µA (Cellular)			
Testing	Vibration & natural Frequency testing passed (5000g)			
Noise Reduction	Unique skeleton holder ensures zero noise			
Certifications	FCC/ISED/CE/UKCA - LoRA+LTE Sensor FCC/IC - Wi-Fi, LTE & Infinity Sensors IECEX Class 1 Div 1 & ATEX Zone 0* - Wi-Fi Sensor IECEX Class 1 Div 2 & ATEX Zone 1* - Lora+LTE, Infinity, LTE Sensors IP68, ASME Class 1 Div 2, UL746C and UL94V0			

Certifications:



FCC 15B



Industry
Canada certified



UL95V0
Flammability Rating



Canada
Certified



NEMA250



ASME Class 1 Div. 2
or "Intrinsically Safe"

