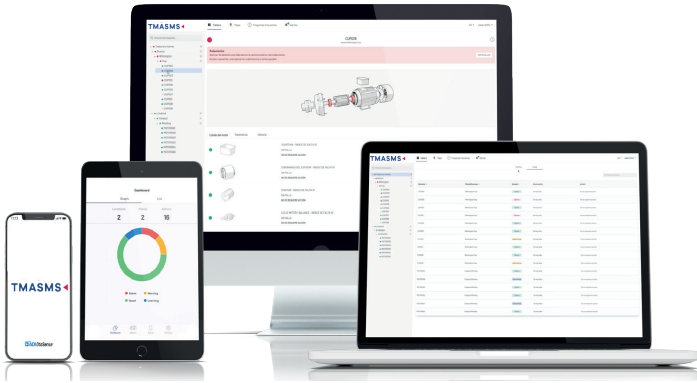# TMASMS ◀

SMART MOTOR SENSOR

Predictive maintenance device for electric motors.
Connected to the IOT, very easy to install and start up,
parameter monitoring and failure prediction.

▶ OVERVIEW

More than just a sensor
TMAS Smart Motor Sensor (TMASMS) monitors the condition of your electric motors
by combining best-in-class sensing technologies with leading-edge data analysis.
TMASMS detects anomalies and defects in equipment,
enabling you to forecast maintenance cycles and avoid unplanned downtime.

Agnostic of motor type, TMASMS covers the most critical diagnostics,
translating data into actionable insights. The Smart Motor Sensor allows for 24/7 condition-based
monitoring of all your low voltage electric motors.
It presents information in a clear way, telling you both what the problem is and how to fix it.

MOBILE APPLICATION

The TMASMS App allows easy setup
of your Smart Motor Sensors, visibility on deployment data,
and in-app notifications and alerts on critical events.
Available on iOS and Android

Download our app

Download on the App Store

GET IT ON Google Play

DASHBOARD

Get a complete overview of your machine health diagnosis
and fault detection with detailed information and visualization
of each motor's status.

POWERFULL MOTOR SMART SENSOR

MONITORING
The monitored data is sent via Wi-Fi
to the operating system of TMASMS,
AI in predicting breakdowns.

SOFTWARE
It analyzes the information, detects
faults, diagnoses and prescribes appropriate
maintenance actions.
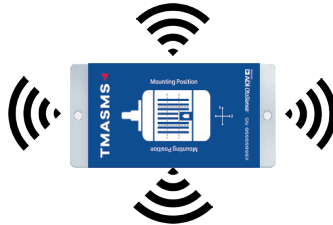
APPLICATION
Through the TMASMS Motor Sensor App
you can access the operation and
status of the motor in real time.

SENSOR
Detects parameters and indicators
such as temperature, vibrations
and flux, essential for
the operation of the motor.

TECHNICAL INFORMATION

Motor compatibility

The Smart Motor Sensor (SMS) works with:

▶ 3-phase squirrel cage induction motor.

▶ Standard low voltage IEC and NEMA motors.

▶ Frames up to 450 (IEC 60034) or 500 (NEMA MG1) whose power
range varies from 0.37 kW to 500 kW or from 0.5 hp to 700 hp.

▶ Motors driven by any type of device (directly on line (DOL)),
by variable frequency drive (VFD), soft starter, and star-delta.

Specification

Physical caracteristic

Weight	0.5kg
Case material	ABS
Mounting	Cooling fins
Battery type	4X Repleaceable AA Lithium Batteries

Vibration measurement

Amplitude range	± 40g
Frequency range	1 Hz ~ 3.1kHz
Data format	Wave form, FFT, RMS
2-axis vibration	Axial and radial

Wireless communication

Network standard	WIFI b/g/n
Radio standard	IEEE 802.11 b/g/n
Frequency	2.4 GHz
Range	> 50m

Certifications and standards

CE
IP Class IP55

70 mm

122 mm

146 mm

42 mm

3 mm
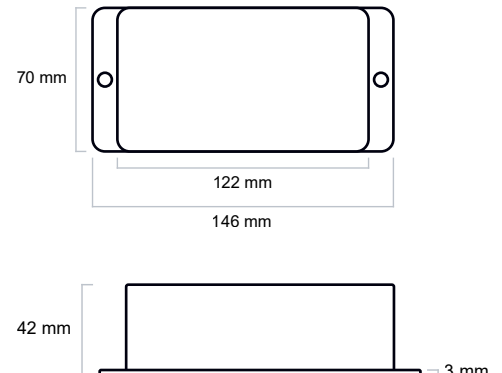
► HOW IT WORKS

01
Set up

Config TMASMS Sensor using the iOs/Android app. Deploy the smart motor sensor within minutes, even while your motor is still running.

02
Learn

Once the sensor is set up on the motor and is commissioned, the learnig process has started. leave sensor running during normal operation.

03
Receive alerts

View your alertin the web dashboard or the mobile app. This allow you to prevent any electrical motor failures.

► BENEFITS

TMASMS optimizes your production environment and reduces breakdowns using robust condition-based monitoring hardware and software. Realize benefits such as lowering asset maintenance costs, extending equipment life, and increasing uptime.

Realtime monitoring

Monitor your equipment more frequently to know when mechanical and electrical failures start to occur and how these issues impact your production process.

Diagnose and take action

A unique model us created for each motor to deliver optimed diagnostics that align with the process. The smart motor sensor provides information you can use to not only diagnose the problem but know the severity so maintenance teams can take action

Optimize your business

By continously monitoring your motor performance and health, you will have better visibillity into maintenance and spare parts needs to know what to order and when to order, reducing inventory costs.

► FAILURE DETECTION

TMAS Smart Motor Sensor (TMASMS) is the most accurate solution on the market to sense and interpret your machine data. This is why we define ourselves as a sensing interpretation world leader. The SMS can detect the following failures:
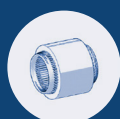
POWER SYSTEM

Asymetry in motor currents

MOTOR SHAFT/BALANCE

Gravity center displacement

ALIGNMENT

Motor/load misaligned

STATOR WINDING

Stator resistance variation

ECCENTRICITY

Stator/rotor concentricity issue

COOLING SYSTEM

Motor cooling system problem

ROTOR

Rotor resistance variation

BEARING

Failures/defects in bearing

SOFT/LOOSE FOOT

Fixing system problems

► TECHNICAL INFORMATION

Requirements

Network

Network	Dedicated 2.4GHz network (5GHz networks not supported)
Security	WEP, WPA, or WPA2
Signal strength	Greater than -60dB
Ports	Port 8883 and HTTPS port (port 443) must be open.

Environment

Operation	–40 C to +60 C
Storage	50 C maximum to avoid energy leakage from lithium batteries

App

iPhone	iOS 13 or later
iPad	iPadOS 13 or later
Android phone	Android 6.0 (Marshmallow) or later

CONTACT US:

TMEIC Asia Pte Ltd
152, Beach Road, #13-07/08 Gateway East, Singapore 189721
Tel: +65 692 2776
inquiry@tmeic-sg.com

TMEIC Asia Indonesia
Alamanda Tower 23rd Floor, Suite E
Jl. TB Simatupang Kav 23-24, Cilandak barat
Jakarta, Indonesia
Tel: +62 21 2966 1699
tmsupport@tmeic.co.id

TMEIC Asia (Thailand) Co., Ltd
Unit 12A03, 12A Fl, AIA Capital Center, 89 Ratchadapisek Road
Dindaeng, Bangkok 10400 Thailand
Tel : +66 2045 0512
sales-admin@tmeic.co.th