

In Manufacturing, millions of low voltage motors operate unmonitored, impacting the motor efficiency, process operation and load performance. Real time monitoring of motor health reduces maintenance, operating and warranty costs.

What is the Smart Motor Sensor (SMS)?

ADI OtoSense™ Smart Motor Sensor is an AI based, full turnkey hardware and software solution that helps avoid downtime and optimize maintenance cost. The device sends sensing data to a cloud where AI provides diagnostics and delivers prescriptive maintenance actions via a web platform and mobile app.

Diagnostic

- Optimize maintenance scheduling and resources allocation
- Includes severity level and recommended actions
- Performance indicator identifies potential issues with the load

Automated

- No need to set alarm thresholds manually
- No manual device training required
- No expertise required for initial analysis

Scalable

- Works with all low voltage asynchronous motors
- No wires, no additional gateways required
- Easy to use interface reduces training and device maintenance

” *The “aha!” moment for us occurred when we realized their technology had the ability to both detect and diagnose very specific events with our pumps — not just vague areas of potential problems leaving us to connect the dots.*

Georg Herborg Enevoldsen
R&D Director, Danfoss High Pressure Pumps

Why customers use OtoSense Smart Motor Sensor



Sensing Interpretation at its best



Reduce unforeseen costly downtimes



Better manage spare parts and stock



Optimize maintenance scheduling and resource allocation

Detectable Motor Faults



Power system

Asymmetry in motor currents



Stator winding

Stator resistance variation



Rotor

Rotor resistance variation



Motor shaft/ Balance

Gravity center displacement



Eccentricity

Stator/rotor concentricity issue



Alignment

Motor/load misaligned



Cooling system

Motor cooling system problem



Soft/loose foot

Fixing system problem



Bearing

Failures/defects in bearing

Smart Motor Sensor solution deployed on Microsoft Azure enables the automated monitoring of your operations 24/7



Ensure continuity of operations

- Better informed maintenance decisions: early detection of potential failures and severity level allows for planning the maintenance
- AI diagnostics and prescriptive maintenance actions
- Savings on unplanned downtime costs and unnecessary preventive maintenance.



Protected data to actionable insights

- Software framework built on a secure foundation.
- Security protocols ensure accurate, reliable and protected data and insights, throughout the entire SMS data lifecycle.



At the cutting edge

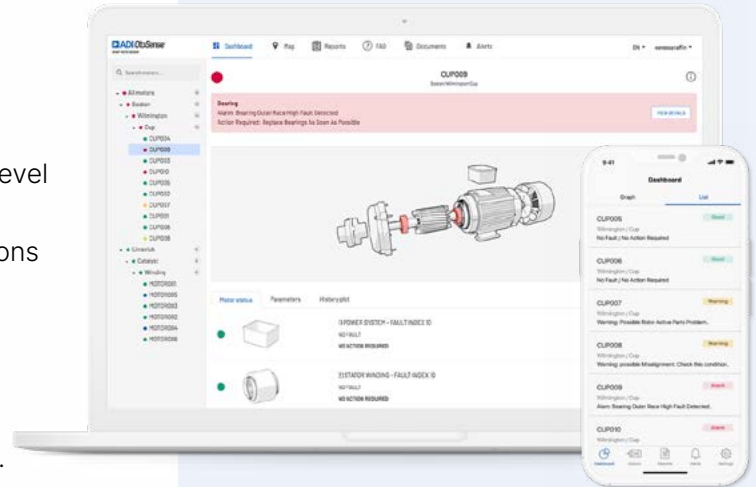
- 80% avoided unplanned downtime costs
- Microsoft manages the infrastructure, allowing Analog Devices to devote more resources to the development of new features.
- AI diagnostics and prescriptive maintenance actions

Why ADI OtoSense?

ADI OtoSense allows your domain experts to give the raw sensor data meaning. Asset behaviors, normal and abnormal, are automatically detected by OtoSense machine learning then identified and tagged by your machine experts. The software is taught to reliably predict and diagnose issues by those who know your assets best – the people who have built their careers understanding your machines. Competitive offerings require powerful computers and more data to be sent to the cloud. ADI OtoSense can be customized and packaged to create turnkey solutions or deployed independently to complete any existing platform.

Free Trial

Explore Smart Motor Sensor with a trial offer
www.otosense.analog.com/order-now



Our promise to you

ADI OtoSense Smart Motor Sensor 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 experts.

An offer to get you started

OtoSense Smart Motor Sensor 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.


SMART MOTOR SENSOR