I-care™

CHANGING THE WAY THE **WORLD PERFORMS.**

SDT Ultrasound

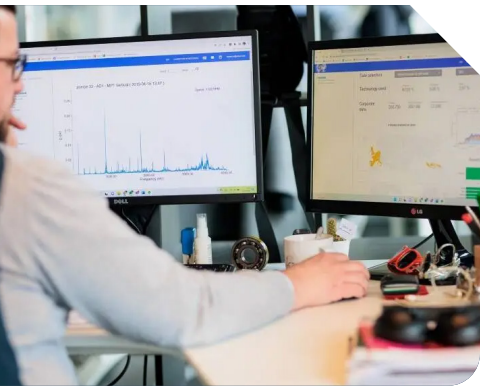
Wireless Vibration Analysis

AS A SERVICE

Permanent Monitoring

Our wireless vibration sensors are built for harsh industrial environments, with long battery life, ATEX and Class 1, Div I certification, and secure wireless connectivity.

Each unit operates independently, making it easy to deploy across all your assets without complex infrastructure, allowing you to oversee thousands of data collection points while reducing manual routes and freeing up your team to focus on what matters.



Analysis at Scale

Our Wireless as a Service solution is backed by qualified, certified vibration analysts. Data is collected daily, then screened and analyzed using AI-driven tools and verified by a human, ensuring only real issues are reported.

We handle full installation and setup, delivering a system that's tested, configured, and ready to go from day one.

Software

At the center of the WaaS model is I-see™, software that bridges the gap between data and decision. Built on AI and a global data model, it turns data from across your operation into clear insight into machine condition. Dashboards are simple and built for every level of your team, so everyone knows what needs attention.

Operating on its own independent network, the system requires no IT support and connects to your existing systems through API, allowing data, alerts, and reports to flow seamlessly into your workflow. Alerts can be configured by asset, condition, or user, with notifications sent by email or SMS.

HearMore@sdtultrasound.com | sdtus.com

AI Driven Tools built to Enhance

Built on a machine health database that spans the globe and decades of data, I-see™ continuously learns from assets across industries. Each new reading improves the system's ability to recognize patterns, detect early-stage faults, and understand how machines behave over time.

Defect Detection
Identifies abnormal behavior in your assets and sensors

Severity Prioritization
Quantifies alarm levels to focus attention where it's needed most

Change Detection
Highlights rapid shifts in condition that indicate fast degradation

Automatic Thresholds
Sets alarm limits based on each machine's historical data

Failure Classification
Automatically sorts assets by fault type and severity

I-see™ uses AI to process large datasets, supporting faster, focused analysis.

IDNA & other Advanced Analysis Tools

I-see™ combines high-frequency data, intelligent data reduction, and advanced methods like IDNA (Intelligent Decimation Numerical Analysis) to detect early-stage failures that traditional methods often miss.

By focusing on the most relevant signal content, IDNA reveals the true condition of a bearing or gear, working alongside classic vibration analysis to provide deeper, more accurate insight without adding complexity.

Safely Integrate with your Existing Systems

Cloud-based, secure, and ISO 27001 compliant, I-see™ connects with your existing systems through API to streamline data flow, alerts, reporting, and automated work orders. Built to scale across sites, assets, and technologies, it delivers secure access, system-wide visibility, and full client ownership of data.

Clear Insight for Every Level of Management

Visual dashboards simplify complex data for every level of your organization. Corporate dashboards provide a high-level view across all sites, plant-level dashboards trend asset health within each facility, and analyst views deliver detailed data and diagnostic tools for deeper investigation.

Each level gets the right information in the right format, so decisions can be made quickly and with confidence.

I-see Mobile App: Asset Reliability Anywhere, Anytime

The I-see™ mobile app keeps your most critical assets in view wherever you are. Receive instant alerts, access performance insights, and monitor asset, plant, or global conditions directly from your device so you can respond faster and make informed decisions from anywhere.

HARDWARE
THAT CONNECTS IT ALL

Wi-care™ G23

A piezoelectric-based, rugged wireless vibration, temperature, and high frequency (IDNA) sensor for permanently monitoring critical assets.
G23 – Non-ATEX, G23 – ATEX – Class 1, Div I

Rugged Design (IP67 Rated)

Sealed housing built to withstand dust, moisture, and vibration.

Long-Life Battery

Up to 5 years of operation with no routine maintenance needed.

Precision Measurement:

Monitor temperature, imbalance, misalignment, looseness, and developing bearing faults.

Independent Measurements

Each sensor captures and processes its own data for consistent, repeatable results.

High-Frequency Detection with IDNA

160 kHz Proprietary signal processing enables early detection for most bearing and gear failures.

Wide Frequency Range

1 Hz to 20 kHz coverage captures both low-speed and high-frequency defects.

Wi-care™ Pure

Portable, wireless vibration data collector for route-based inspections and in-field analysis. Syncs directly with I-see™ on a rugged tablet.

Tri-axial measurement for key fault detection.

Built for the field, completely wireless.

Instantly sync with I-see™ software.

Complements Wi-care™ sensors.

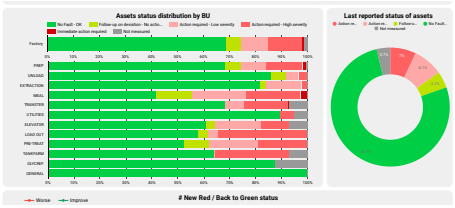
What Separates our Wireless Vibration Sensors

Precision-Engineered & Machined Sensors

Reliable measurements from cutting-edge sensors that you can trust.

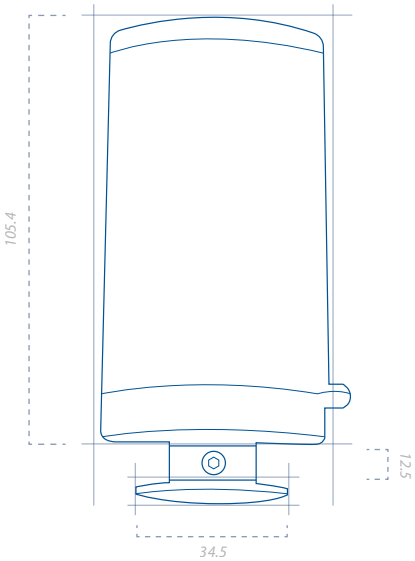
IDNA High Frequency Sampling - 160 kHz

The earliest detection of the most common failure modes.



AI Model Built on World's Largest Vibration Data Set

Turn complex signals into clear fault identification.



Predictive Maintenance Software, Permanent Monitoring Hardware

Reduce the need for manual inspections by continuously monitor your assets with a fully connected wireless vibration system. We leverage the world's largest machine health database to turn vibration, temperature, and process data into actionable insights.

Every data point is reviewed daily, screened by an AI model and verified by a vibration analyst. Only real issues are passed on to your team.

Delivered as a fully managed wireless monitoring service, working with us includes ongoing support and regular performance reviews so your team can focus on fixing problems instead of searching for them.

WI-CARE 130 G23

HearMore@sdtultrasound.com | sdtus.com

PRODUCT FEATURES

Vibration measuring range [g]	+/- 40g
Vibration measurement range [mm/s]	31200mm/s @2Hz - 6.2mm/s @10kHz
Frequency range [Hz]	2 Hz- 20 kHz
IDNA Sampling rate	160 kHz
Measurement axes	Triaxial
Temperature measurement (Yes/No)	Yes
T° measurement range	-40°C- + 125°C
Standard measurement cycle	1 measurement per day
Sensor type or technology	Piezo : X, Y, Z
Minimal period between measurements	15 minutes
Protection class	IP67
Spectrum resolution	Up to 16.000 lines

ELECTRICAL DATA

Power supply	Battery Lithium Thionyl Chloride 3,6V 8,5 Ah
Battery life	5 years based on default operation

ACCURACY/DRIFT

Sensitivity (mV/g)	25mV/g
Sensitivity Tolerance	+/- 15%
Frequency Range (+/-3dB)	2 Hz to 10 kHz
Amplitude Linearity (%FSO)	+/- 1%

SOFTWARE/PROGRAMMING

Interface for displaying data	I-see
Alert transmission via SMS , EMAIL	Yes
External software compatible	Yes
Parameterisation options	Yes

COMMUNICATION

External software compatible	Yes
Parameterisation options	Yes

OPERATING CONDITIONS

Ambient temperature [°C]	-20 °C- +85°C

MECHANICAL DATA

Weight [g]	190
Mounting type	Glue stud, M6 stud, M8 stud, magnet

ACCESSORIES

Mounting adapter	Insert

HAZARDOUS AREA RATING

Ex rating	Class I, Div I

GATEWAY G23

PRODUCT FEATURES

Weight	13.68oz (388gr)
Weight for Ex version	59.96oz (1700gr)
Dimensions (length x width x height) [mm]	6.3” x 6.3” x 2.76”
Mounting	Mounting brackets (4)
Casing	Polycarbonate; Flameproof min. V-0
Protection class	IP66
Operating temperature / Humidity	-20°C to +85°C / 0-95% RH (non-condensing)
Ex Operating temperature / Humidity	-15°C to +60°C / 0-95% RH (non-condensing)

POWER SUPPLY

High voltage PSU (100-240 VAC)

Input voltage range	85-305 VDC / 100-430 VAC
Output power	15W

Low voltage PSU (24 VDC)

Input voltage range	16-36 VDC
Output current	Max. 3000 mA (36W)
Output voltage	12V

PRODUCT FEATURES

Wireless Protocol	Secure Open Thread (IEEE 802.15.4) / LTE category 1
Broadcast Range	100m (line of sight)
Physical interfaces (ethernet, USB)	No
Distance between radio modules	30mm in diagonal

HAZARDOUS AREA RATING

Ex rating	Class I, Div 2, Group ABCD, Ex eb mb IIC T4 Gb, Class I Zone I AEx eb mb IIC T4 Gb