

i-ALERT[®] Remote Monitoring Solution

Zero Unplanned Downtime

Sensor | App | Gateway | Diagnostics | Ai Platform



Protect your facility. Protect your business.

With unpredictability at an all-time high, the need to stay agile, proactive and productive is great. The need to do so cost-effectively is even greater. ITT i-ALERT is a total machine health monitoring ecosystem that improves plant reliability by enabling rotating equipment to run with less unplanned downtime.



A reliable, online solution to complement reliability/maintenance



Cost-effective entry to condition monitoring



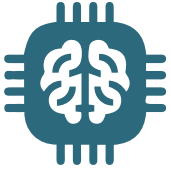
Remote monitoring capability, integration to existing systems and predictive diagnostics





Easy Setup

Begin monitoring your equipment in minutes. No power or wires to install. Sensor installation supports threaded connection, epoxy or magnetic mounting. Download the free i-ALERT mobile app and follow the on screen instructions to get started.



Smart

i-ALERT immediately begins monitoring your equipment on activation. Built in edge computing processes vibration spectrum data to enable in-depth analysis of the equipment health. Get automated vibration analysis and diagnostics through the i-ALERT Ai Platform.



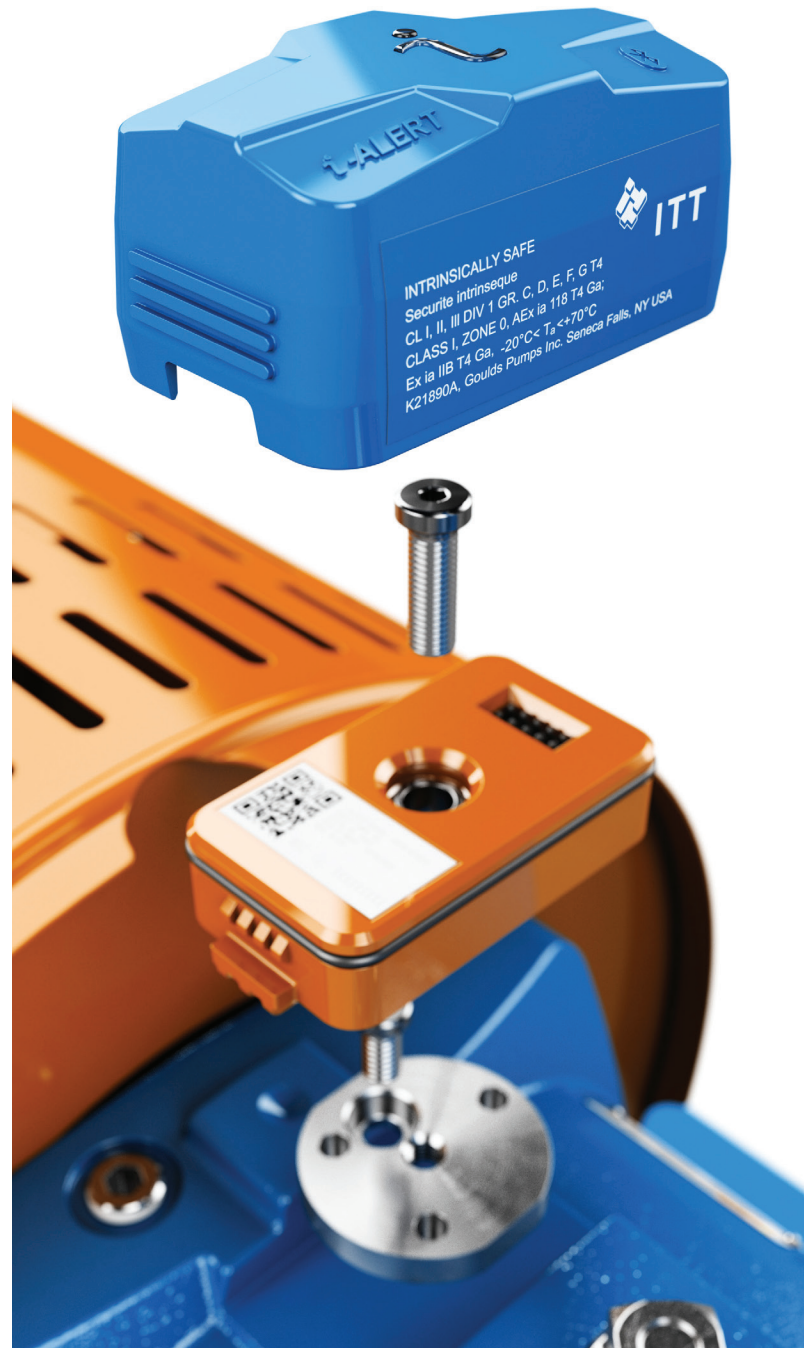
Plug & Play

For 24/7 remote monitoring the i-ALERT Gateway provides a secure connection between the i-ALERT sensors and i-ALERT Ai portal. Apply power and let the gateway automatically connect to the cellular network and configure all the i-ALERT sensors in range.



Accurate

The i-ALERT sensor was designed to accurately measure vibration in all three axes and is on par with dedicated vibration analysis tools in much higher price ranges. Vibration diagnostics are available to anyone with a smart mobile device.



Plays nicely with others

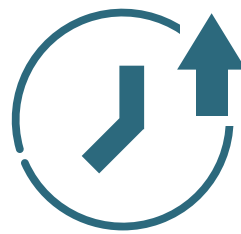
ITT i-ALERT3 is the advanced machine health sensor that quickly and accurately diagnoses status and warns of issues prior to occurrence for a variety of machines.

Easy, secure integration with existing processes and capabilities – be that automated diagnostics, remote monitoring, walk-around data collection, reliability monitoring experts or total rotating equipment management.

See fast results and gain peace of mind knowing the i-ALERT system is monitoring your equipment to discern which machines need attention, alert you of issues before occurrence, and focus preventive actions to avoid large repairs, failures and downtime.

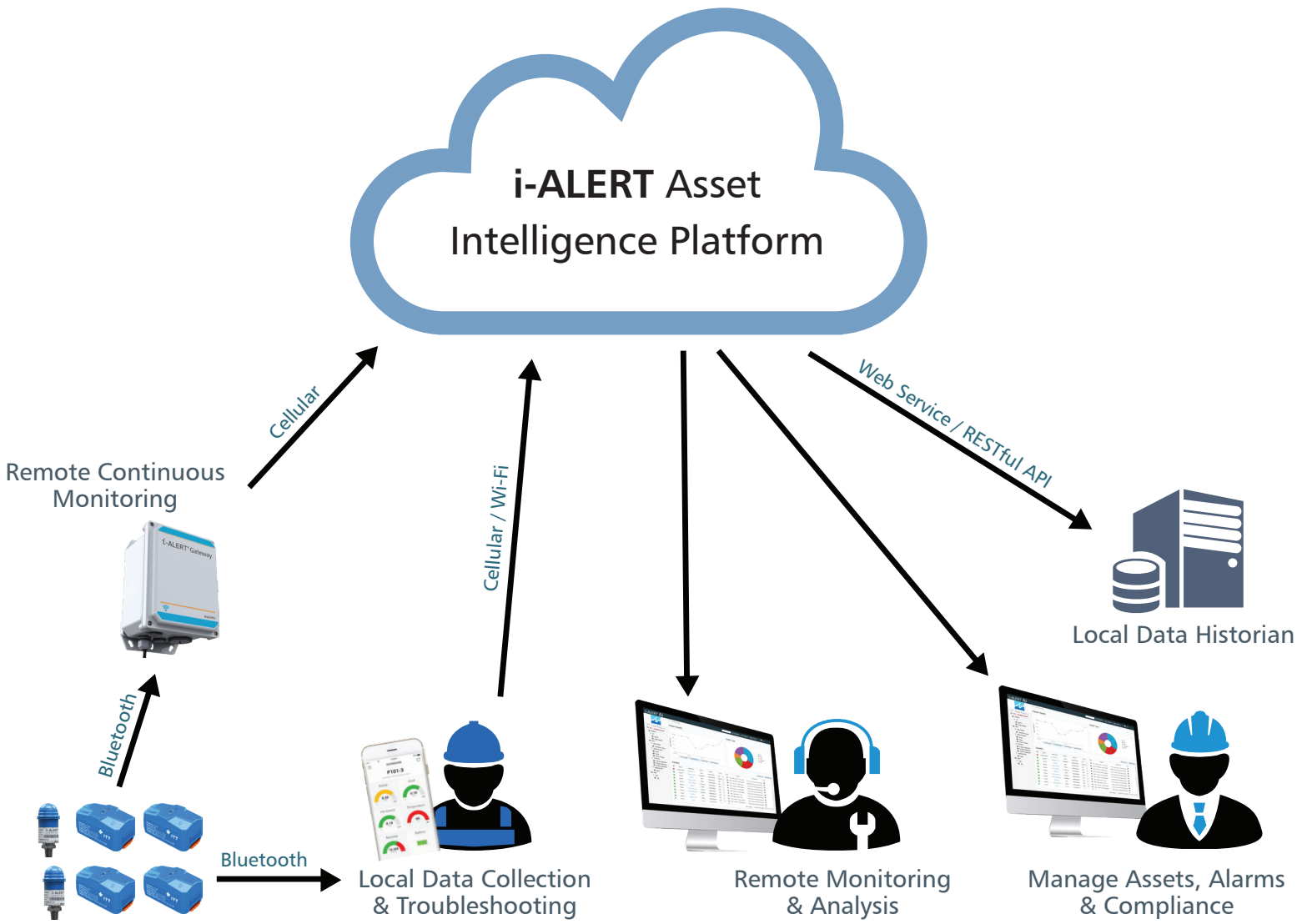


Reduce costs



Increase uptime





Machine Health Monitoring Ecosystem

i-ALERT3 Vibration & Temperature Sensor

Machine Health Monitoring

Monitor and log the vibration and temperature of any rotating machine. Capture transient events with configurable alarm checks (30 seconds to 5 minutes) and trend overall health with normal trend interval (30 seconds to 60 minutes). For advance analysis request or download vibration spectrum on demand. Frequency range extended to (4Hz - 5kHz).

i-ALERT3 sensor now includes a user replaceable lithium battery.

Technical Specifications

Vibration: 3-Axis, (4Hz-5kHz) (X,Y,Z)

Temperature: -40°C to +84°C (-40°F to +183°F) T3
-40°C to +60°C (-40°F to +140°F) T4

Data Storage: 170 Days (based on hourly data)

Analysis: Machine Run-Time, Vibration Spectrum,
User defined Vibration bands, Motor Electrical Health Trending

Wireless: Bluetooth 5™, Range 30-100m (100-300ft)

Power: Lithium Battery, 2-3 Year Average Life (use dependent)

Environment: IP68 / NEMA4x, Intrinsically Safe Class 1 Div 1 (Zone 0)



Part Numbers

i-ALERT3



K21911A

Stainless Steel Mounting Adapter



K25394A

Magnetic Mounting Adapter



K21913A

i-ALERT Pressure & Temperature Sensor



Process Monitoring

Directly measure and monitor the pressure and temperature of any process fluid. Build long term trends and capture transient events with the built in data logger.

Technical Specifications

Pressure: -14.7 to 10,000 psi

Temperature: -20°C to 85°C (-4°F to 185°F)

Wireless: Bluetooth V4, Range 30-100m (100-300ft)

Data Storage: 300 Days (based on hourly data)

Power: 2 Year Replaceable Lithium Battery (use dependent)

Enclosure: IP68 / NEMA4x

Wetted Material: 17-4 Stainless Steel

Part Numbers

Pressure &
Temperature Sensor
-14.7 to 100 psi



K10504A01²

Pressure &
Temperature Sensor
-14.7 to 250¹ psi



K10504A02²

1. For pressure ratings above 250psi call factory.
2. Available in selected regions only.

i-ALERT Gateway



Secure Connection

The i-ALERT Gateway provides a secure connection between the i-ALERT sensors and the i-ALERT Ai portal. Apply power and let the gateway automatically connect to the cellular network and configure all the i-ALERT sensors in range. The gateway enables connection to the Ai portal for autonomous sensor data upload and changing of i-ALERT sensor settings remotely by authorized users.

Technical Specifications

Cellular WAN: LTE, 3G

Bluetooth: Bluetooth 4.0 (Max 12.5 dBm)

Wireless Range: 30-100m (100-300ft)

Power: 120-240VAC or 6-90 VDC

Temperature: -30°C to 60°C (-22°F to 140°F)

Enclosure: IP68 / NEMA4x, Class 1 Division 2; ATEX/IECEx Zone 2

Part Numbers



Gateway
120-240VAC

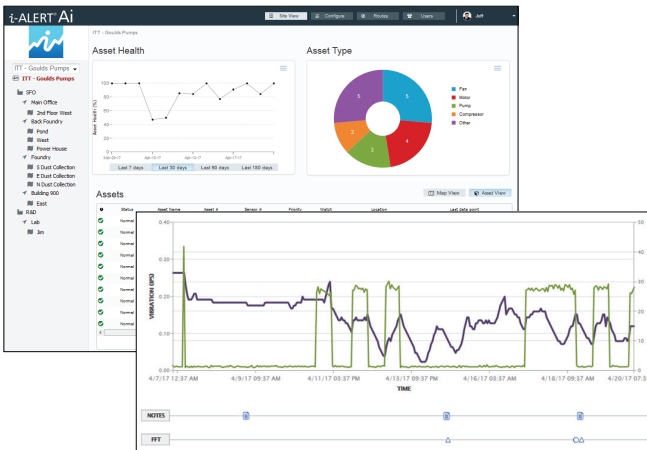
K13653A-US

K13653A-US / K13653A-GBLX



Local Monitoring & Troubleshooting

- Monitor your machines right from your phone or tablet with the i-ALERT mobile app.
- Simple, intuitive dashboard tracks vibration, temperature, run-time & battery life.
- Trend parameters such as vibration, temperature, vibration bands and run-time to monitor changes in machine health or operation.
- Advanced analysis tools allow vibration spectrums to be downloaded from alarm events or on-demand.
- Generate and send machine health reports directly from your mobile device.
- Real time diagnostics on all vibration spectrums.



Remote Monitoring & Collaboration

- Monitor and manage all of your i-ALERT enabled machines and sensors in one place with the i-ALERT Ai Platform.
- No software downloads or additional hardware required.
- Collaborate remotely with team members and subject matter experts.
- View a complete history of the machine in one view.
- Analyze and automatically diagnose machine faults.
- Manage and schedule data collection activities.
- Automatically receive notifications of critical machine events.
- Schedule automated reports for desired assets.



Actionable Information & Automated Diagnostics

- Based on vibration spectrum analysis and developed over 30 years the i-ALERT automated diagnostics software will detect a machine fault event, determine the fault severity, provide the fault type and recommendations to remedy the fault.
- Automated vibration diagnostics works with pumps, fans, centrifugal blowers, agitators, mixers, electric motors and gearboxes.
- Additional machine types in progress. Contact the i-ALERT team for additional information.

Synergistic

Now you can pinpoint any problem with precision accuracy to prevent disaster and glean the clearest path forward even when no one is around.

With i-ALERT remote monitoring, there's no need to set up expensive wireless networks just to get going, saving deployment cost and time. Get started fast with a plug & play interface and system flexibility to easily grow with your needs and equipment.

Which makes it easier to meet your production and budgetary needs and goals today, and wherever tomorrow takes you.



i-ALERT Solutions

i-ALERT Works: Automation Helps Mitigate Labor Shortages



Challenge:

Reliability teams are often stretched by emergency requests, long distances to walk and machines not operating when passed by as part of a route.

Solution:

Machine health monitoring can help employers increase productivity, without the need for hiring additional staff to perform tasks that can be managed by an IIOT system.

Outcomes:

The i-ALERT Machine Health Monitoring System dynamically monitors and maintains the condition of your mechanical assets through Bluetooth enabled sensors and real-time analytics.

i-ALERT to the Rescue: Hospital System Praises i-ALERT for Predicting Equipment Failure...Before it Happened



Challenge:

A very large hospital system in the Northeast USA with limited internal resources for vibration analysis needed to monitor machines vital to critical operations.

Solution:

The hospital team installed the i-ALERT System on all critical assets, coupled with the use of the i-ALERT Gateway which allows remote 24x7 asset monitoring of all facilities (including intensive care units).

Outcomes:

Once the i-ALERT system was installed, several impending failures were caught, using integrated diagnostics. The i-ALERT System sensors detected and resolved an increasing horizontal vibration and the diagnostic rules engine pointed to an issue with worn sheaves. Maintenance staff was able to remove the fan from service and repair it – prior to it affecting ICU operations during a time of critical need.

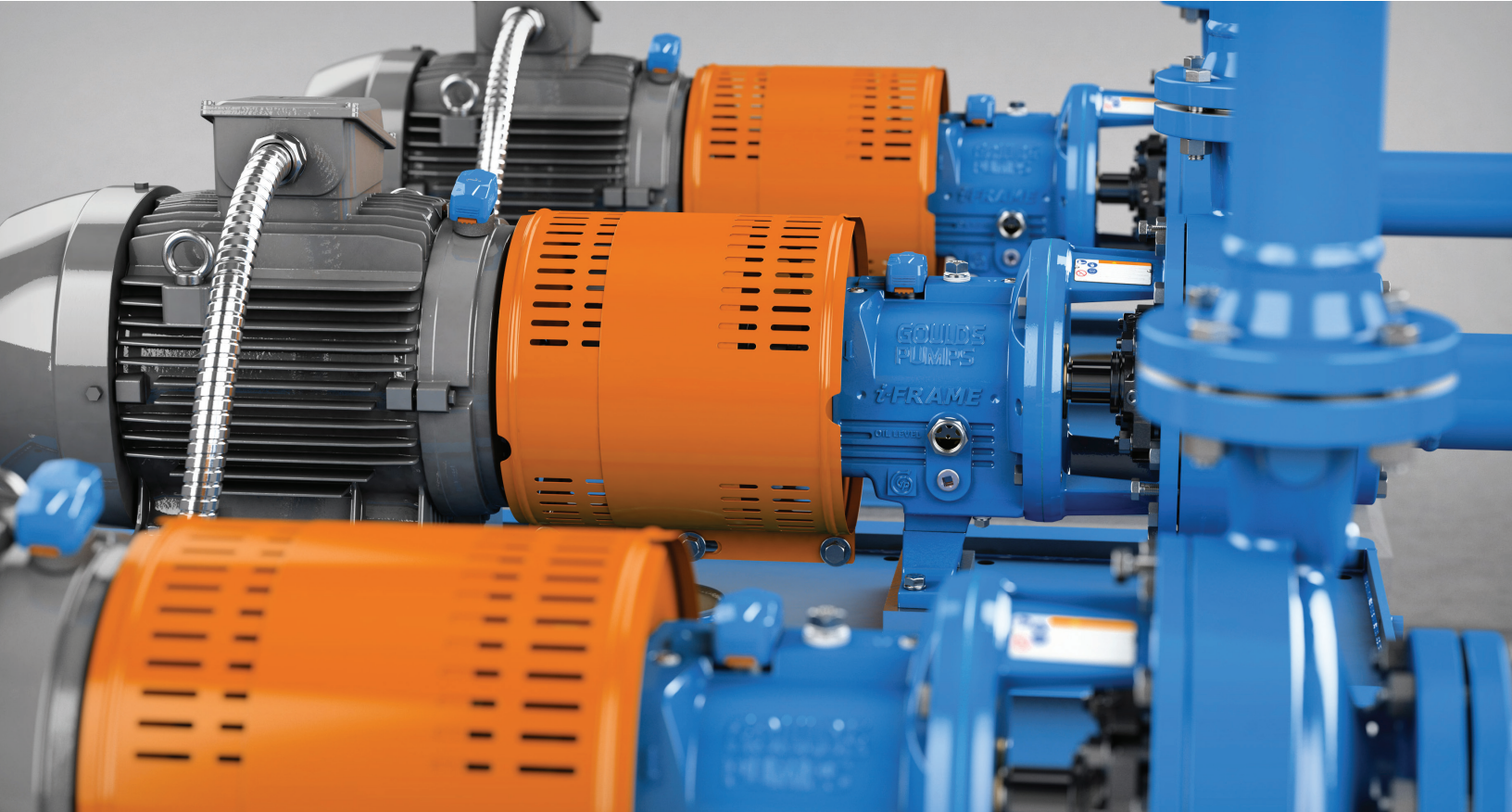


Remote Monitoring Features

- Replaceable battery whilst on-machine, even in a hazardous area minimizes outage time and cost.
- Detect potential issues sooner through wider vibration frequency measurement range at high accuracy levels. ((4Hz - 5kHz) X,Y,Z)
- Enhanced detection of early bearing and gear box faults with user defined vibration bands with separate alarm levels
- Tri-axial trends in velocity and acceleration
- Flux trend and spectrum analysis, enabling more insight into motor health
- Improved resolution in vibration spectrum to 0.5Hz/bin, viewable in velocity and acceleration
- Instantly know what the fault, severity and recommendation is, and the clearest path forward.
- Expanded range, speed and connectivity with Bluetooth 5.0
- i-ALERT automated diagnostics provides a new level of automated intelligence.
- Over-the-air updates keep your system current seamlessly.

Level up overall performance.

Power through your goals and objectives – and your company’s – with proactive diagnostics and remedies in place that ensure uptime, all the time. Take your production and your capabilities to the next level. i-ALERT makes it easy.



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Where to buy:

<https://www.i-alert.com/pricing/locator>



— ITT Brands