

Communication

Does the i-ALERT2 sensor only need a Bluetooth connection to use the diagnostics function? *The diagnostics analysis can be completed from the Mobile App, providing the mobile app has a connection to the internet. The i-ALERT2 sensor will need to be within Bluetooth range of the mobile app to transfer data to the app.*

Does it require Wi-Fi or cellular service to collect and process the data? *The diagnostic functions are performed on the Ai Platform. The mobile device requires web connectivity in order to provide results.*

Installation/Start up

How do I enable diagnostics with my current i-ALERTs? *Diagnostics can be enabled from within the Ai Platform or via either version (IOS/Android) within the Mobile App.*

Does this change my alarm settings? *No changes to alarm settings will take place upon enabling diagnostics.*

Does this change the default baselines on new sensors? *It does not change the baseline taken by the sensor used for setting alarm levels, nor will it change the baseline (alarm/warning levels) if manually set by a user. Baseline, as referred to in the context of diagnostics, is the selection of an FFT reading that represents normal operation of the equipment under normal operation. This reading is used within the diagnostic algorithms to detect impending failures.*

Do I need to have a new baseline taken to setup diagnostics? *It is not mandatory, but will greatly enhance the accuracy of the analysis. As such, it is highly recommended.*

Does the mounting requirements of the sensors change with diagnostics use? *No changes needed to the mounting requirements for diagnostics accuracy.*

What do I need to do if I move a sensor to another machine? *The same procedure as before (rename sensor, reset alarms and warning levels to the new equipment), AND taking a new baseline FFT reading is recommended.*

Should I have multiple sensors on my equipment to get better diagnostics information? *More sensors will yield more accurate results. It is recommended to have (in general) a sensor on the drive and free end of the equipment, and at least one sensor above the bearing on the output shaft of the motor or driver.*

Does the diagnostics work on non-Goulds Pumps equipment? *Absolutely. The diagnostics will work on many different machine types, from any manufacturer.*

Does my environmental temperature changes around my equipment effect the diagnostics readings? *Temperature changes will not affect the diagnostic accuracy.*

Data

What are the baseline levels set to? *Baseline levels within the diagnostics are either user selected (i.e., selecting an FFT reading as baseline that represents normal equipment operation), or if not selected, the system will utilize a synthetic baseline. It is preferable to use a real (user acquired) baseline FFT for maximum accuracy.*

How far back does the diagnostics access my sensor readings (30, 90, 120 days)? *The diagnostics can be performed on data up to 6 months old.*

How does this work with my trend data? *Diagnostics utilize changes in the trend data as well as information contained in the FFT and Time waveforms to calculate potential issues.*

Does this effect the stored data? *Diagnostics has no effect on stored data.*

Is there any impact on the FFT, TWF and overall RMS measurements? *There are no changes to any stored measurements by the Diagnostics System.*

Hardware

Is there a firmware update to my current sensors? *No update is needed.*

How does diagnostics impact sensor battery life? *Diagnostics has no effect on battery life.*

Software

Do I need to download a new app to use diagnostics? *There will be an update to the App, however if "automatic updates" is enabled in the phone or tablet, the update will happen automatically.*

Routes

Does the route creation function change when using diagnostics? *Diagnostics has no effect on routes.*

Pressure Sensor

How does the diagnostics function work with the pressure sensor? *Diagnostics (currently) does not utilize the pressure data if it exists on a machine.*

Gateway

Do I need an i-ALERT Gateway to use diagnostics? *Although very beneficial, a Gateway is not required to use diagnostics.*

i-ALERT Ai

Do I need an i-ALERT Ai subscription to use diagnostics? *An Ai subscription with diagnostics is required to use diagnostics, however the diagnostics can be accessed through either the mobile app or the Ai Platform.*

What equipment works with automated diagnostics?

Driven Equipment	Power Transmission
Centrifugal Pump, Screw Pump, Progressive Cavity (Thread) Pump, Gear Pump, Fan, Centrifugal Blower, Cooling Tower Fan, Agitator, Mixer and Aerator	Rigid, Flexible and Closed Coupled, Belt and Gearbox

Will automated diagnostics work with other equipment not listed?

- For equipment not listed please contract the i-ALERT engineering team for evaluation. Automated diagnostics may be available. Depending on complexity of the machine train a one-time non-recurring setup fee may be required for this service.

How many sensors do I need per machine?

- The automated diagnostics will work with only one sensor per machine train. However, for the best accuracy it is recommended two i-ALERT sensors are installed on the driver inboard bearing and driven equipment inboard bearing for bearing spans less than 30". For larger equipment with bearing spans greater than 30" it is recommended an i-ALERT sensor to be installed on both the inboard and outboard bearing.

Required (coupled)



Recommended (bearing spans < 30")



Recommended (bearing spans > 30")



Required (closed coupled)

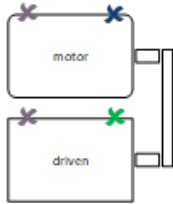


X Required
X Recommended

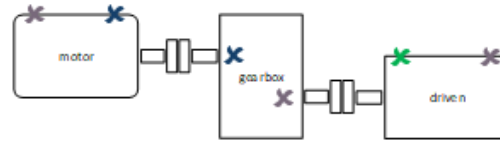
How many sensors do I need when the driver and driven equipment are not directly coupled?

- *The automated diagnostics will work with machine trains in which there is an intermediate power transmission device such as a belt/chain or gearbox. Below are examples of recommended sensor placement for these types of machine trains.*

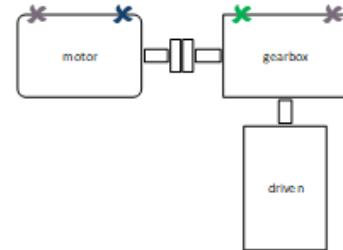
Belt / Chain



Gearbox (driven flexible coupled)



Gearbox (driven rigid coupled)



- ✗ Required
- ✗ Recommended (bearing spans < 30")
- ✗ Recommended (bearing spans > 30")

How do I get automated diagnostics on my current i-ALERTs?

- *To get automated diagnostics on your current i-ALERTs you will need to upgrade the i-ALERT to the diagnostics bundle which requires an annual subscription. The Diagnostics bundle includes the automated diagnostic software and access to the Ai Platform for each sensor with a subscription.*