

i-ALERT[®]2 Condition Monitor General FAQ for Users



i-ALERT2 General FAQ_2017 0125

1. How far can the i-ALERT2 Equipment Health Monitor communicate?

The i-ALERT2 monitor uses Bluetooth Low Energy, with a range of 30m (100ft).

2. What happens to the data collected by the i-ALERT2 monitor?

For all data and privacy related questions refer to the privacy policy.

3. How long will the battery in the i-ALERT2 monitor last?

Under normal operating conditions, the battery will last 3 years. Battery life is temperature and use dependent. In general, there will be an increase in battery life with lower temperatures and decrease with higher temperatures. Connecting and downloading data from the device will also use power. In the 3 (three) year battery life we have accounted for one dashboard connection per day and an FFT/TWF sample every other week. Using the product more than this will naturally reduce the battery life faster. The 3-year battery life is based on:

- Temperature: 18°C (65°F), average ambient
- Dashboard connections (including trend download) of once per day
- FFT and Time Waveform usage of one tri-axial request per 14 days
- Operation time in Alarm at most 25% of total time

4. Can I configure my own alarms?

Alarm and warning levels are set automatically or they are user defined through the App. User can set levels (not exceeding 1.5 ips, RMS) as desired by:

1. Go into App, select the i-ALERT2 monitor that will be assigned or re-assigned
2. Go to Main Menu
3. Go to Equipment Info
4. Tap (highlight) Alarms and Warnings
5. Change setting as desired using "+" and "-"
6. When finished entering all fields, click "Save"

If the thresholds are entered manually, the automatic baseline feature is disabled.

The following video link demonstrates this: <https://youtu.be/vbhqB12QQxl>

5. Will the i-ALERT2 monitor re-baseline when removed and re-installed on another piece of equipment?

When an i-ALERT2 monitor is moved to a different piece of equipment it is recommended to erase the internal memory which returns it to its factory state. This will trigger the unit to take a baseline measurement automatically. If a user prefers to retain the data stored in the i-ALERT2 monitor, but would like to have new baseline thresholds then perform the following while within range of the *i-ALERT2 device*:

1. Open Main Menu and select "Equipment Info"
2. Under "Commands" select "Start New Baseline"

The following video link demonstrates this: <https://youtu.be/o740Yho4HjA>

6. What is the measurement interval for the i-ALERT2 monitor?

During normal operating mode a 3 axis vibration and temperature measurement is taken every 5 minutes to check if it is in alarm, but the measurement is stored once an hour as a trending point. Additional measurements are taken and recorded as trending points when the i-ALERT2 monitor transitions its alarm state for two or more consecutive readings

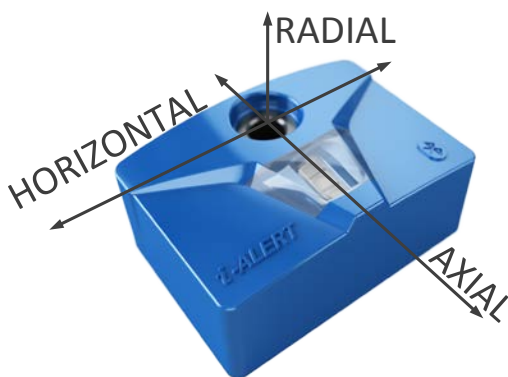
7. Does the i-ALERT2 device need to sense light?

The i-ALERT2 device is only required to sense light during the initial turn-on period where the yellow/red arrow sticker is removed. During normal operation (once started) ambient light is not necessary for continued operation of the i-ALERT2 monitor. If no ambient light is present during initial start, a flashlight or other source can be used to enable the device.

8. Does the i-ALERT2 device turn off when it is dark out?

No, once operational, the i-ALERT2 device will continue to monitor regardless of ambient light levels.

9. How are the axes on the i-ALERT2 device oriented?




10. Is there an option for a magnetic mount?

For customers who would like to mount the i-ALERT2 device with a magnetic mount, we now have the i-ALERT2 Magnetic Mounting Adapter (ITT Part number: K051563A). Please note that the adapter will limit the upper frequency range to 600Hz and because of the size the temperature accuracy is also reduced.

11. How do I transfer data from the App to a computer?

A report can be generated and emailed, or when viewing the trend the upload button can be selected and the raw data (in CSV format) can be viewed or sent by email.

1. Data points can be viewed by clicking the upload icon  from the trend screen, where individual points can be viewed in tabular format.
2. Raw data (CSV format) can be exported via email by tapping the upload icon a second time.

The following video link demonstrates this: <https://youtu.be/QQm8nzCPdI0>

12. Is it possible to transfer data via e-mail?

Yes, please see steps detailed in the previous question.

13. How can I get Data to my DCS or SCADA System?

Data can be extracted manually and sent to a DCS/ SCADA in CSV format. See steps in question 11 above.

14. Where are the i-ALERT2 units made?

The i-ALERT2 monitor is designed and manufactured in the USA.

15. Is the App/software free?

Yes, it is free to download and use.

16. Is there a monthly fee for the service?

There is no monthly cost.

17. Can it work on pumps other than Goulds Pumps?

It will work on most rotating equipment with shaft speeds greater than 600 RPM. If the rotating equipment does not have an i-Frame®, the i-ALERT2 monitor can be used with an optional mounting base, which can be epoxied to the equipment, or mounted by drilling and tapping a ¼-28 hole.

18. Can the BOM, Curve, etc. (machine data) be changed in the field if the impeller diameter or application is changed?

At this time only the technical equipment data can be edited, the pump curve and the BOM cannot be edited.

19. Does all the curve data, BOM, etc. reside in the i-ALERT2 monitor or at the server location?

All of the equipment data (details, curve, BOM) comes from the ITT Cloud. To get access to the equipment information the smart device will need internet access.

20. Does the vibration data resides on the i-ALERT2 device and not the server?

The i-ALERT2 device stores data on the device and that data is shared with the App. The App will back up the data and access the equipment records through an internet connection.

21. Does the i-ALERT2 device only need Bluetooth connection? Does it require Wi-Fi or cellular service to operate?

The i-ALERT2 app needs to have the device's Bluetooth turned ON to view and transfer the stored data. An internet connection is necessary to access equipment data and locator info. Without internet access the app will still work, but it won't be fully featured.

22. Can the i-ALERT2 device be used with a Bluetooth extender?

There are many off the shelf Bluetooth range extenders however not all use Bluetooth 4.0. The i-ALERT2 device has not been tested for use with a Bluetooth extender, at that this time we cannot make a recommendation.

23. How often does the i-ALERT2 monitor store data?

The i-ALERT2 monitor stores data (3-axis vibration, kurtosis, runtime, and temperature) every hour for 30 days. After 30 days the data is summarized into a weekly max, min and average values weekly, which is stored up to 5-years.

24. The i-ALERT2 monitor is not available in my Country – can it be made available?

Depending on the opportunity, certification for the i-ALERT2 monitor can be obtained for additional countries on a case by case basis. Please contact your sales office for additional information.

25. What is the limit of observable devices using the App?

The Scan screen in the current App has been tested to 150 units at a single time.

26. *Is it possible to modify equipment details?*

Yes, but the modifications are currently limited to equipment details. It is not possible to modify pump curve or bill of materials at this time.

27. *Is it possible to have multiple i-ALERT2 monitors on a single piece of equipment?*

Yes, just be sure to set an appropriate device TAG name and to change the i-ALERT2 device's position under "Equipment Info → Equipment Details" accordingly.

28. *When and what type of data does the i-ALERT2 monitor take on alarm?*

FFT, TWF and overall RMS measurements are acquired on two consecutive alarm readings (maximum once every 48 hours). The i-ALERT2 monitor continues to take overall RMS measurements every 5 minutes, storing them hourly.

29. *What is the meaning of the runtime bar and the red part that appears within?*

The runtime counter accumulates run time hours based on machine vibration and displays the number of hours while in operation. The red portion of the bar indicates what portion of total runtime was spent in alarm.

30. *Will the i-ALERT2 monitor re-baseline when removed and re-installed on another piece of equipment?*

When an i-ALERT2 monitor is moved to a different piece of equipment it is recommended to erase the internal memory which returns it to its factory state. This will trigger the unit to take a baseline measurement automatically. If the user prefers to retain the data stored in the i-ALERT2 monitor, but would like a new baseline, select "Start New Baseline" under "Equipment Info".

31. *What is the frequency range of the i-ALERT2 monitor?*

The frequency range is 10-1000 Hz in the Axial and Horizontal directions, and 10-600 Hz in the Radial direction.

Use of the ITT Magnetic Mount adapter will limit the upper frequency range to 600Hz for all three axis.

32. *What windowing function is applied to compute the FFT?*

It is the Hanning window.

33. *What is the temperature accuracy?*

The temperature accuracy is determined by factors such as mounting method, i-ALERT2 monitor placement, and other factors such as ambient temperature or convective airflow over the sensor. For those reasons, the temperature measurement should be considered relative and not absolute.

Use of the ITT Magnetic Mount Adapter reduces temperature accuracy as well due to the longer heat transfer path to the sensor.

34. How do I mount the i-ALERT2 monitor on vertical equipment?

The i-ALERT2 monitor can be mounted on vertical equipment using any of the same 3 mounting methods used for horizontal equipment. Care should be taken to mount the i-ALERT2 device over the bearings and making sure that the row of LED's are aligned with the shaft of the rotating machine. In the case of vertical pumps where one end is submerged, the i-ALERT2 monitor can be used on the dry end only.

35. How do I mount the i-ALERT2 monitor on non-Goulds equipment?



The i-ALERT2 monitor can be mounted on non-Goulds equipment using either the drill and tap method or the epoxy method or the ITT Magnetic Adapter. Please refer to the Applications Guide for more detailed information.

Routes

36. Is there an efficient way to gather data on multiple devices?

The Routes feature provides this functionality. Tap the Routes icon in the main menu to configure a route.

37. How do I create a new route?

Choose the  Route icon from the main menu then select  "Add New Route" icon to get started.

38. While executing a route, can I make changes?

Changes take effect after the current route is completed.

39. What is the difference between available route types?

Condition	Normal			Warning			Alarm		
	Overall	Trend	FFT/TWF	Overall	Trend	FFT/TWF	Overall	Trend	FFT/TWF
Quick	<input type="checkbox"/>			<input type="checkbox"/>			<input type="checkbox"/>		
Agile	<input type="checkbox"/>	Every 60 days		<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Traditional	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Route Type	Description	Data
Quick	Spot check	Overall VRMS from every device.
Agile	Smart data gathering	FFT and TWF only from devices in alarm. Trend every 60 days.
Traditional	All data, from all device every time	All data, from all devices every time.

40. Is there a maximum number of devices that can be added to a route?

The practical upper limit is 200 devices per route.

41. Why do some i-Alerts fall to the checked equipment list immediately during a route?

Depending on the route type, you may only need a status update which may seem instantaneous to the user.

42. What happens if I complete the route and have no cell service?

The data will be stored within the smart device and a report can be issued at a later time.

43. Is there any way to view the most recent Route Report?

Left swipe on the Route List page over the desired route. Select report.

44. Is there any way to organize the list?

Use the “Second Location” field under Equipment Details to add additional information.

45. How can I see what floor a device is on?

Use the “Second Location” field under Equipment Details to denote additional location details.

46. Can I send a route to someone?

At this time it is not possible to transfer a route.

47. Does the App take into account other user’s routes?

Each route is a separate event, and does not affect any other route.

48. How do I check the last routes summary?

Swipe left on route name in main route page, and choose “Previous”

49. Can I skip a device? Can I un-skip a device that was previously skipped?

Swipe left on the device name in the main page and choose “skip” or “un-skip”

50. If I start a route by accident, how do I reset it?

Use the back arrow in the upper left to return to the main route screen.

V1 vs V2

51. What are the differences between a Ver 1 and Ver 2 i-Alert2?

- a. Smart download; only missing data is downloaded resulting in faster data viewing
- b. Run-time counter improvements; sensitivity adjustment, using an adjustable slider bar.
- c. Hourly data storage increased from 60 days to 170 days.
- d. Latching alarm shown as “Last alarm < X days”

52. What does the “Last alarm notification” indicate?

The last alarm notification tells the user within what period of time the last alarm occurred for that device. The increments will show an alarm occurred within 2, 7 or 30 days. No notification indicates more than 30 days have passed without an alarm.

53. How do I tell which device version I have?

In the App go to “Equipment Info → i-ALERT Information” where the device version number will be shown., Alternatively, for the Version 2 the sticker on the back of the device will have a manufacturing date after **8/22/2016**.

54. What limitations are imposed by the use of the ITT Magnetic Mount?

The temperature measurement will be adversely affected due to the increased heat path distance to the i-ALERT2 monitor, but in most cases, it can still be used as a trend indicator. The vibration measurements in all Axis are limited to 600 Hz without distortion when using the magnetic mount.