GO Real-Time 4G/5G Global Tracker User Manual

Cargo Monitoring Solutions

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Table of Contents

Introduction	Page	3
Understanding the Device	Page	4
Device Status and LED Indications	Page	5-6
Other Tracker Features	Page	7
Activating Device	Page	8
Oversight Online Dashboard	Page	9
Creating A Shipment	Page	10
Oversight Mobile Application	Page	11
Device Placement	Page	12
GO GreenSense™ Recycling Program	Page	13
Technical Specifications	Page	14 -15
Regulatory	Page	15
Troubleshooting and FAQ's	Page	16 -18
Technical Support	Page	19

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Introduction

Keeping track of shipments has never been easier with the GO Real-Time 4G/5G Global Tracker. Using cellular technology, trackers provide temperature and location alerts as your shipment moves through the supply chain. And now, with our three-mode 5G cellular technology (Cat-M, NBIoT, GSM), connectivity and access to your data is further enhanced. Rest assured that visibility to temperature, humidity, and location data will be available despite the ongoing transition in the cellular technology industry.

The GO Real-Time 4G/5G Global Tracker will measure and transmit time, temperature, humidity, light, and location via tri-mode functionality (CAT-M, NBIoT, GSM) to the Oversight online database. It is well equipment to monitor perishable shipments up to 20 days in duration at -20 to 60C temperatures. An optional temperature probe can monitor temperatures down to -200C. For shipments lasting longer than 20 days in duration, the GO Real-Time 4G/5G Global Plus Tracker offers additional battery life up to 90 days.

Comprehensive and automated reporting is provided through the Oversight Dashboard and the Oversight Mobile app. Data is encrypted, providing security as it moves to the cloud. Information is at your fingertips while you are on the go with Oversight Mobile. Check status and create shipments direct from a phone or tablet. View current maps, graphs, and charts of key shipments including temperature, humidity, security, and location details. Shipment summary reports include additional details such as device serial number, trip name and duration, mean kinetic temperature, and time above or below range. The Oversight Mobile app is available in English, Chinese, Spanish, Italian, German, Portuguese, Turkish and French.

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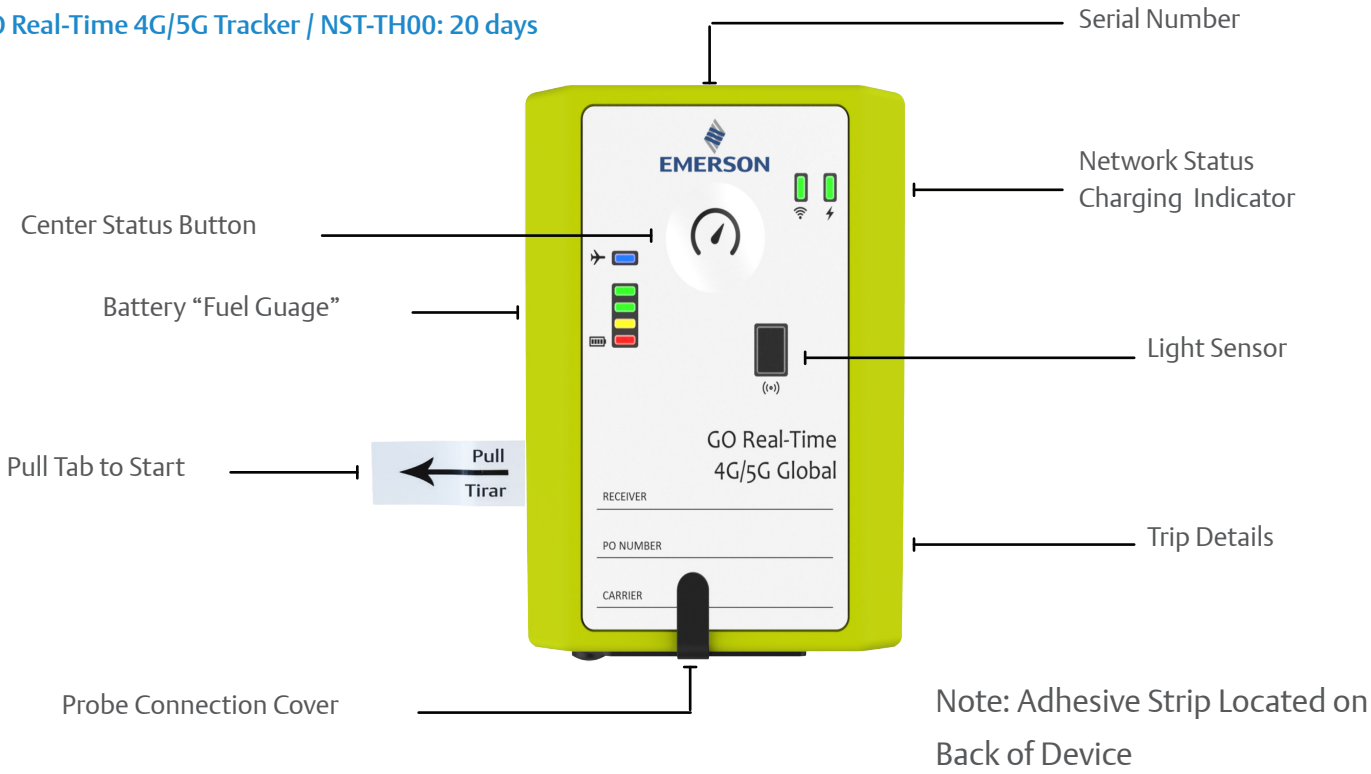
Understanding the Device

GO Real-Time 4G/5G Tracker / NST-TH00: 20 days



GO Real-Time 4G/5G Global Plus Tracker / NXT-TH00: 90 days

Device Status and LED Indications

Battery Fuel Gauge

View remaining battery capacity (denoted with a battery icon) after activation with a quick press of the center status button.

Four LEDs indicate remaining battery capacity based upon estimated voltage upon activation:

- Red Only: Less than or equal to 20% capacity or 3.2V
- Red + Orange: Less than or equal to 40% or 3.6V
- Red + Orange + Yellow: Less than or equal to 60% or 3.8V
- Red + Orange + Yellow + Green: Greater than 60% capacity or 3.8 V

	Red	Orange	Yellow	Green
Battery Fuel Guage: Indicates remaining battery capacity	< 20%	< 40%	< 60%	>60%

Network Status Indicator

	Solid Blue LED	Flashing Blue LED
Network Status Indicator	Searching for network	Registered to network

Airplane Mode

Two independent methods are deployed to disable transmissions when the GO Real-Time 4G/5G Global Tracker is included in air freight shipments.

1. A cellular over-the-air (OTA) command is given through the Oversight Dashboard to disable transmission through a defined geo-fence database. A user can also specify through a database configuration a duration for the unit to re-enable transmissions or come out of airplane mode.
2. An accelerometer-based algorithms disables transmissions based upon aircraft takeoff and landing.

When Airplane Mode (denoted by an airplane icon) is activated, a BLUE LED flashes every 1 second for a 30 second duration. The same sequence occurs for de-activation.

Device Status and LED Indications

Charging Indicator

The GO Real-Time 4G/5G Global Tracker battery (part number NST-TH00) is intended to last up to 20 days in duration under normal conditions. The Global Plus Tracker (part number NXT-TH00) is intended to last up to 90 days in duration under normal conditions. A RED LED ((denoted by a flash icon) will illuminate when the GO Real-Time 4G/5G Global Tracker is being charged.

- Solid RED indicates when charging cable is plugged in and battery is being charged
- RED LED is off when charging is complete or cable is not attached

IMPORTANT: For maximum battery life, do not remove the base tracker from the the NXT-TH00 cradle assembly.

Fault Indicator

In the unlikely event of a device fault or non-conformance, selected LEDs will illuminate immediately after the device status button is pressed and battery capacity is indicated. The following fault codes can be provided to Emerson Technical Support for further troubleshooting:

- Green: SIM failure
- Yellow: No registration on network
- Orange: Network rejection
- Red: No server connection

For assistance, contact Technical Support +1-877-998-7299 or CargoSupport@Emerson.com.

Status Button

The GO Real-Time 4G/5G Global Tracker status button (denoted with a lever icon) allows a user to check battery life, airplane mode and network connectivity.

- A quick press of the status button, will illuminate LEDs in stepped sequence to reflect their immediate status
- The BLUE LED for airplane mode will illuminate, only if active
- The BLUE LED for network connectivity will illuminate, if properly connected
- The fuel guage LEDs will illuminate to reflect the device's remaining battery life
- All LEDs will turn dark after 10 seconds

Other Tracker Features

On/Off Switch

The GO Real-Time 4G/5G Global Plus Tracker (NXT-TH00) comes equipped with an on/off switch intended to power additional future sensors such as CO_2, shock and vibration. This switch is not active for part NXT-TH00. The default setting is "off." Batteries in both NST* and NXT* devices will charge regardless of how this switch is toggled.

Temperature Probe

The GO Real-Time 4G/5G Global Tracker can be used with an optional temperature probe that connects directly to the device. These probes are typically used when pulping perishable food or embedded deeper into product packaging for more precise temperature measurements. Emerson offers several probe options, both digital and analog, that can span an operating range of -200C to 100C. For more information regarding these optional temperature probes please contact your Emerson sales representative.

Activating Device

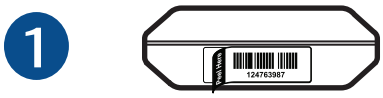
Step 1: Peel off the serial number label from the top of the device and place on the manifest.

Step 2: Write shipping info on the tracker.

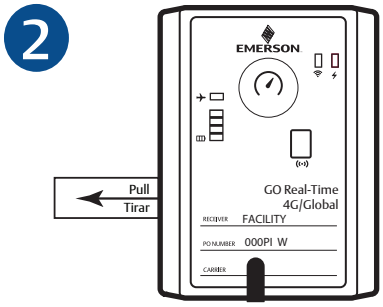
Step 3: Pull the start tab.

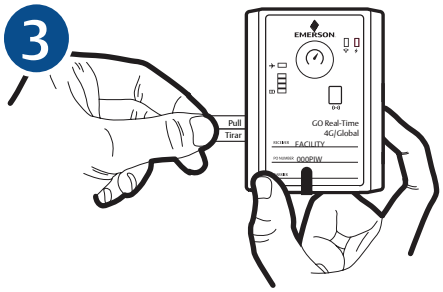
Step 4: Upon activation, LEDs will illuminate temporarily and turn off during normal operation.

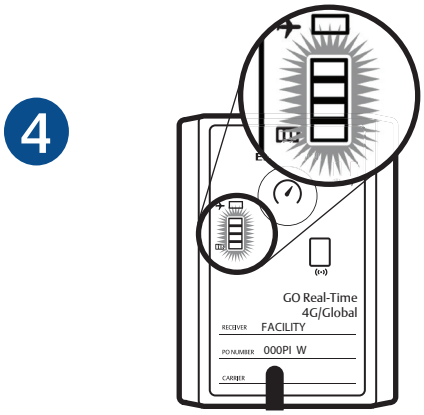
Step 5: Remove adhesive strip on back of device and directly attach to packaging. Do not place in protective sleeve if humidity sensor is enabled.

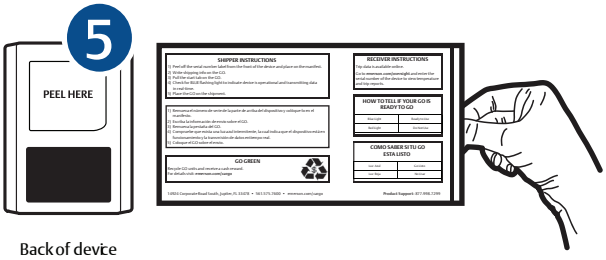


Top of device









Back of device

Receiving GO Real-Time 4G/5G Global Trackers

After activation, shipment data is available online. Go to Emerson.com/Oversight and enter the serial number of the device to view temperature and trip reports.

Oversight Mobile App

Data at your fingertips. Scan the QR Code or visit the app store on your smart device.

Note: Part number NXT-TH00 includes an additional battery pack. Device will draw additional power even without toggle switch in "On" position. Keep the rubber probe/charging port cover in place at all times.

Oversight Mobile App

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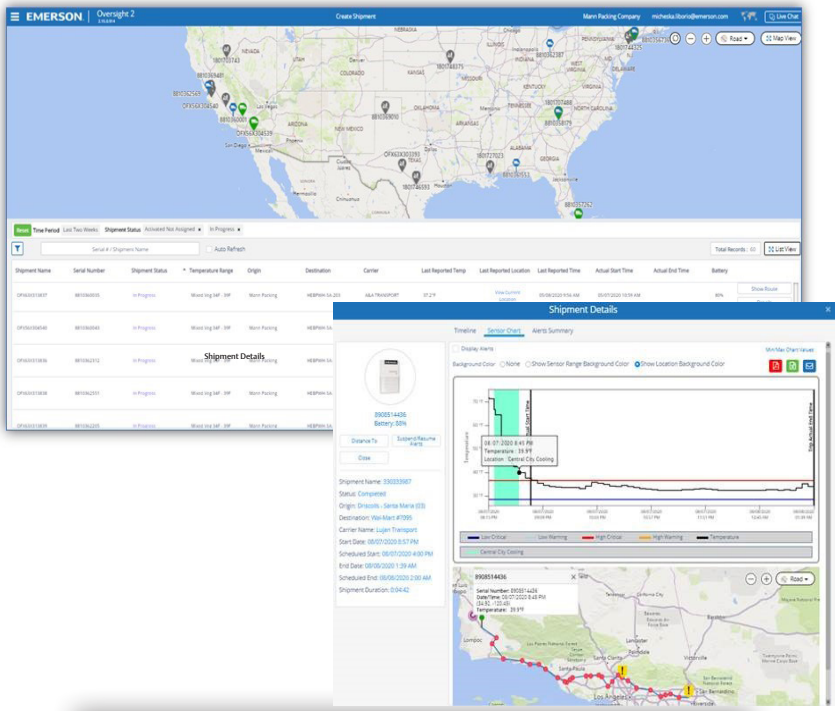
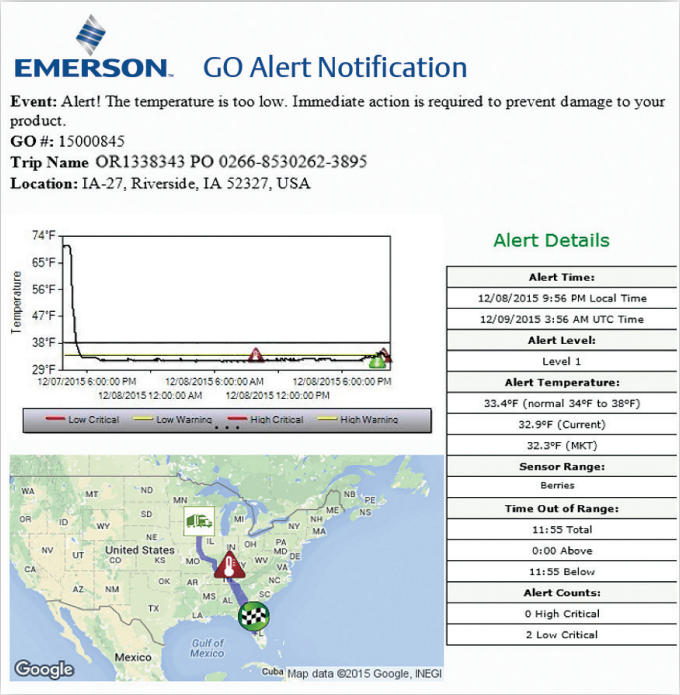
Oversight Online Dashboard

Comprehensive and automated reporting is provided through the Oversight Dashboard and the Oversight Mobile app. Data is encrypted, providing security as it moves to the cloud. Information is at your fingertips while you are on the go with Oversight Mobile. Check status and create shipments direct from a phone or tablet. View current maps, graphs, and charts of key shipments including temperature, humidity, security, and location details. Shipment summary reports include additional details such as device serial number, trip name and duration, mean kinetic temperature, and time above or below range. The Oversight Mobile app is available in English, Chinese, Spanish, Italian, German, Portuguese, Turkish and French.

Contact CargoAccountManagement@Emerson.com to set-up training and obtain credentials. Access is controlled by a username and password. It's also easy to share shipment data with a partner by simply assigning a username and password to that partner. Intelligent Alerts are text and email messages that get the right information to the right people at the right time. The system filters the information based on business rules established by each customer. If a rule is violated, such as upper and lower temperature limits, a text and email Intelligent Alert messages are sent automatically.





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Creating A Shipment

Step 1: Login or enter a 10 digit serial number in the Track Your Shipment box. For Login users, select a shipment template, if applicable. Finally, enter a desired shipment name.

Step 2: From the drop down menus you may select a template, if applicable:

- Trip and Origin name
- Departure date and time
- Add stops (if applicable)
- Destination name
- Arrival date and time
- Temperature Range

For additional help on setup and training please contact : CargoAccountManagement@Emerson.com

If the location does not appear in the drop down select Create New Location. Shipment templates will populate the origin and destination.

Step 3: Select a temperature range or select “no tempearture information required”. If applicable, the temperature ranges will show in the drop down menu.

Select a cool down type:

- 1 hour: Alerts via email will be sent 1 hour after creating a shipment
- 4 hours: Alerts via email will be sent 4 hours after creating a shipment
- No Alert Suppression: Alerts via email will be received right away

Step 4: Select the Create Shipment button. You have the option to save the trip as a template. Select “yes” to save as a trip template. If you want to enter a contact that normally does not receive alerts on all shipments, enter any additional alert contact information.

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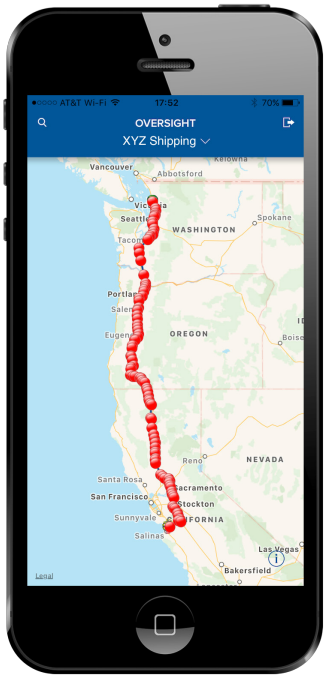
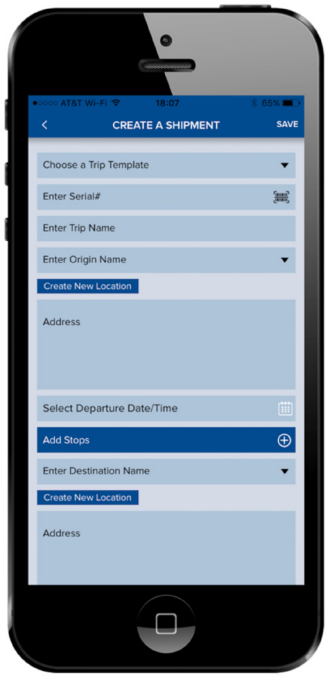
Oversight Mobile Application

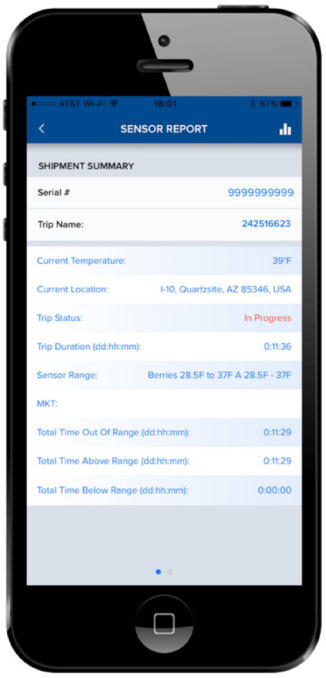
Visit Emerson.com/Cargo for the app download and product information (compatible with Android 4.1 and above, iOS 8 and above), or search for the Emerson Oversight app in your app store. Additionally, you can scan the QR Code on the bottom of the page. The Oversight Mobile app offers the same features and benefits as the Oversight Dashboard, our cloud-based online portal.



Map View



Create a Shipment



Sensor Report

1. View shipment route on a detailed map.
2. Assign a trip name to a specific GO tracker serial number and receive temperature alerts by clicking save in the top right corner.
3. The sensor report gives in depth details of shipment information such as trip duration, mean kinetic temperature, and total time out of range.

Oversight Mobile App

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Device Placement

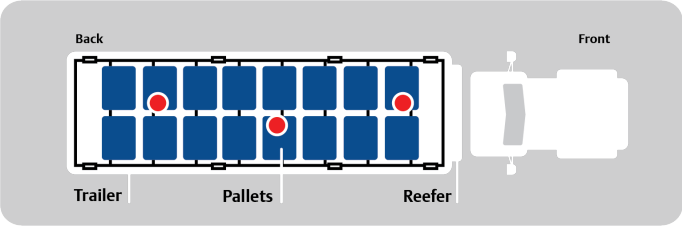
The GO Real-Time 4G/5G Global Tracker can be used and applied in a variety of ways.

Pallet Level

Many customers apply trackers the side of a pallet. Emerson provides signage and clear plastic pouching to facilitate locating trackers on pallets at the receiving location as depicted in the photo to the right. Many customers place several trackers on different pallets within a load to perform temperature monitoring. This promotes broader sampling and provides more detailed information on the temperature fluctuations experienced within a container.

Placement

Trackers should not be placed inside of a pallet or carton because the cellular signal will likely be blocked. Emerson recommends placing the GO Real-Time 4G/5G Global Tracker products on the outside of the pallet closest to the back doors. If the shipment has multiple drops, place the tracker on the top of the pallet of the last drop or inside wall of the trailer closest to the back doors.



Mounting

The GO Real-Time 4G/5G Global Tracker can be mounted to two ways. The most common method is to utilize the double-side tape or adhesive pouch to adhere the tracker to a pallet. An alternate method is to utilize the key-hole slots on the back of the unit to securely hang the GO Real-Time 4G/5G Global Plus Tracker (NXT-TH00 only).

GO GreenSense™ Recycling Program

GO Real-Time 4G/5G Global Trackers can be easily recycled through the Emerson Cargo Solutions GO GreenSense program. GO GreenSense is a recycling program that facilitates the return of Emerson temperature monitoring products for proper battery and component recycling. The GO GreenSense program provides customers with eco-friendly return boxes and pre-paid postage return labels free of charge. For more information, email GOGreen@Emerson.com or call +1-877-998-7299.

Technical Specifications

GO Real-Time 4G/5G Global Tracker

Battery:	UN38.3 Compliant
Cellular:	CAT M1/NB1: B1/B2/B3/B4/B5/B8/ B12/B13/B18/B19/B20/B26/B28/B39 EGPRS: 850/900/1800/1900MHz
Certifications:	FCC, PTCRB, CE, IC
Device Storage:	Optimal: Below 20°C and 60% RH
Humidity Accuracy:	At 25°C, between 20% RH and 80% RH: ±5% RH
Humidity Range:	20% to 95% operation typical
In-Use Life:	Tri-mode with up to 20 days of operation, 6-minute measurements reported at 18-minute intervals
IP Rating:	IP62
Light Sensor Sensitivity:	±0.5 Lux, minimum detectable 1.0 Lux
Oversight Dashboard:	Emerson.com/Oversight
Probe	Optional (-200°C to 100°C operating)
Recycle Options:	GO GreenSense™ program
Shelf Life:	Shipped with a minimum in-use and shelf life of approximately 6 months. Please check the "Activate By Date" on the product box and follow a first-in-first out process.
Size:	2.9 in x 3.8 in x 1.0 in (73 mm x 95 mm x 25 mm)
Temperature Range:	-20° C to 70° C (-4° F to 158° F) operating environment
Temperature Accuracy:	±0.5°C (0.9°F) typical between -20°C to 60°C (-4°F to 140°F)
Weight:	91 g (0.2 lbs)

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Technical Specifications

GO Real-Time 4G/5G Global Plus Tracker

Battery:	UN38.3 Compliant
Cellular:	CAT M1/NB1: B1/B2/B3/B4/B5/B8/ B12/B13/B18/B19/B20/B26/B28/B39 EGPRS: 850/900/1800/1900MHz
Certifications:	FCC, PTCRB, CE, IC
Device Storage:	Optimal: Below 20°C and 60% RH
Humidity Accuracy:	At 25°C, between 20% RH and 80% RH: ±5% RH
Humidity Range:	20% to 95% operation typical
In-Use Life:	Tri-mode with up to 90 days of operation, 60-minute measurements reported at 60-minute intervals
IP Rating:	IP32
Light Sensor Sensitivity:	±0.5 Lux, minimum detectable 1.0 Lux
Oversight Dashboard:	Emerson.com/Oversight
Probe	Optional (-200°C to 100°C operating)
Recycle Options:	GO GreenSense™ program
Shelf Life:	Shipped with a minimum in-use and shelf life of approximately 6 months. Please check the "Activate By Date" on the product box and follow a first-in-first out process.
Size:	3.2 in x 4.9 in x 2.1 in (83 mm x 124 mm x 53 mm)
Temperature Range:	-20° C to 70° C (-4° F to 158° F) operating environment
Temperature Accuracy:	±0.5°C (0.9°F) typical between -20°C to 60°C (-4°F to 140°F)
Weight:	363 g (0.8 lbs)

Regulatory

Regulatory certification information and Lithium-ion battery information are available at Emerson.com/Cargo.

Troubleshooting and FAQ's

Q: Does a lack of LED light on the unit mean it is not working?

A: No, this is normal functionality. Simply check if your unit is reporting in Oversight. Located on the homepage, enter the 10-digit serial number into the "Track your shipment" field. Alternatively, press the unit's status button to see battery life remaining, airplane mode and network status.

Q: How do I activate GO Real-Time 4G/5G Global Trackers?

A: Please make sure that you are using a unit that is current and not expired. The expiration date can be found on the box. Pull the tab to activate the battery and the unit's LEDs will illuminate. The tracker will automatically search for an available cellular network. It can take several minutes before the unit is reporting in the Oversight online dashboard.

Q: How does the GO Real-Time 4G/5G Global Tracker report its data?

A: Trackers measure ambient temperature and communicate through cellular networks not GPS. The unit will need to have good cellular connection to send the information in real-time.

Q: What if I need to return my unit?

A: If you have been informed that it is necessary to return your device(s) to our facility for analysis, we will provide you with all the required documents for the return along with instructions. We will notify you once your devices have arrived at our facility. Once the analysis is completed by our Engineering team, your Customer Success Specialist will provide the results. These results will take approximately 10-15 days from the time the unit arrives. You can contact your Customer Success Specialist by phone at +1-877-998-7299 or by email at CargoAccountManagement@Emerson.com.

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Troubleshooting and FAQ's

Q: Does the unit report during an ocean shipment?

A: If the load where your unit is placed is on an air or ocean shipment, it is normal to lose communication with cell towers. Your device will continue reading and recording all the information, once communication with cell towers is reestablished.

Q: How can we add additional users in Oversight?

A: Our Technical Support and Customer Success teams can add any additional users for Oversight. Simply provide the first and last name of the new user along with the email address.

Q: Can I setup only temperature associated alerts?

A: Yes, we can modify alert information by person and by specific need.

Q: What does it mean when I have a cluster of red data points on the tracking map in Oversight?

A: This indicates tracker(s) are not moving and is currently stationary at its location.

Q: How do I download the tracker's temperature and humidity information?

A: On the sensor report, you can access the Excel or PDF icon to obtain sensor data.

Q: Can I change trip details after it has been created?

A: Shipment information can be changed by clicking Details and then editing the shipment parameters on the left hand side of the screen.

Q: How can I reduce the number of alerts I am receiving?

A: In Oversight, you can customize this information based on your need, by simply reducing the alert levels and expanding the upper and lower limit of temperature ranges.
You may also contact your Customer Success Specialist to discuss your Oversight setup options.

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Troubleshooting and FAQ's

Q: How do I monitor active reporting shipment information in the Oversight dashboard?

A: Go to Emerson.com/Oversight and login with your user credentials. Alternatively, enter the unit's 10-digit serial number in the Track Your Shipment box for a quick search. If the serial number does not appear it has not yet reported to Oversight.

Q: What kind of data is reported in Oversight?

A: Oversight reports temperature, location, time, humidity and light data.

Q: Why am I not able to observe any shipment information in Oversight?

A: Follow these steps:

- Wait about 20-30 minutes after your device has been activated, since this is the average amount of time it takes for the unit to connect to the cell towers for the first time. Also, verify the "activate by" date is within range.
- Verify that the department in charge of activating the devices has done so correctly and if possible, request photos as proof.
- Make sure that the device has been placed correctly on the load. Remember that proper placement is on top of the last pallet closest to the doors. Avoid placing the unit in between pallets or inside product. Also, if you need to place a thermal blanket or something similar, remember that the device would go outside of it.

Q: Who do I contact if I am unable to see my tracker in Oversight?

A: If all of the above has been verified, contact your Technical Support team to investigate. Please have the following information available:

- 10-digit Serial Number(s) of your unit(s)
- Placement on the shipment, origin and destination locations of your load
- Location of activation
- Approximate arrival and departure date

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Technical Support

Technical Support is available 24 hours a day, 7 days a week.
We're with you every step of the way.

Toll Free: +1-877-998-7299

Emerson.com/Cargo

CargoSupport@Emerson.com

Live Chat

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