thermoscientific



Smart Siren

User Guide

331676H04 • Revision A • 05/27/2020



IMPORTANT Read this user guide. Failure to follow the instructions in this user guide can result in damage to the unit, injury to operating personnel and poor equipment performance.

CAUTION All internal adjustments and maintenance must be performed by qualified service personnel.

Material in this manual is for informational purposes only. The contents and the product it describes are subject to change without notice. Thermo Fisher Scientific makes no representations or warranties with respect to this manual. In no event shall Thermo be held liable for any damages, direct or incidental, arising from or related to the use of this manual.

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Safety Instructions



IMPORTANT NOTE: Do not use this product for protection or as part of an automated emergency system or as for any other application that involves protecting people and/or property. This product is designed for use in environments where children are not likely to be present. Customers and users of Thermo Scientific products are responsible for making sure that the product is fit for the intended usage. Do not open the product casing and do not disassemble or modify internal components in any manner. Thermo Scientific products do not contain any internal components that require user intervention or repair. If the device shows signs of improper operation, disconnect it immediately from its power source or remove the battery and contact Thermo Scientific technical services.



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT OPEN OR REMOVE THE PRODUCT CASING. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The lightning flash with arrowhead symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



BATTERY WARNING: This product contains one nonrechargeable 3.6V battery. THE BATTERY IS NOT REPLACEABLE. Any attempt to change the battery or opening the product casing will void the manufacturer warranty. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL Use only batteries recommended by Thermo Scientific. Do not use a different type of battery, such as rechargeable, alkaline and magnesium, or use batteries of different brands, or even different types of batteries of the same brand. Incorrect batteries may cause the device to heat up and may result in fire or battery liquid leakage. Never dispose of batteries in fire. Do not charge regular batteries that are not specifically rechargeable.

When the battery is low, or in case the battery-operated device in question remains unused for a lengthy period of time, remove the battery from the device in order to avoid any risk of battery liquid leakage. Never leave batteries within the reach of children. In case of a battery leak, avoid all contact with the liquid present on the batteries. Rinse with clear water immediately in case the battery liquid comes into contact with the eyes, mouth or skin. Contact a doctor or emergency service immediately. Battery liquid is corrosive and can damage vision or cause blindness or chemical burns.

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Device Maintenance

When maintaining your device:



CAUTION: : Do not attempt to disassemble the device. There are no user serviceable parts inside.



CAUTION: Do not misuse the device. Follow instructions on proper operation and only use as intended. Misuse could make the device inoperable, damage the device and/or other equipment, or harm users.



CAUTION: Do not apply excessive pressure or place unnecessary weight on the device. This could result in damage to the device or harm to users.



CAUTION: Do not use this device in explosive or hazardous environments.



CAUTION: Do not expose your device to any extreme environment where the temperature or humidity is high. Such exposure could result in damage to the device or fire.



CAUTION: Do not expose the device to water, rain, or spilled beverages. It is not waterproof. Exposure to liquids could result in damage to the device.



CAUTION: Do not place the device alongside computer discs, credit or travel cards or other magnetic media. The information contained on discs or cards may be affected by the device.



CAUTION: Using accessories, such as antennas, that Thermofisher has not authorized or that are not compliant with Thermofisher accessory specifications may invalidate the warranty.

Safety Instructions Smart Siren User Guide

Regulatory Information



- Contains Bluetooth component 2AA9B04
- Contains LoRaWAN™ component XTLCMABZ

This paragraph pertains to 915 MHz Smart-Vue Pro™ wireless devices. This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

- 1. This device may not cause harmful interference.
- 2. This device must accept any interference received, including interference that may cause undesired operation.

FCC RF Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna should not be less than 20 cm (8 inches) during normal operation. End users must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must not be co located or operating in conjunction with any other antenna or transmitter.

IC Statements

Industry Canada RSS-210 modular qualification

IC:

- Contains Bluetooth component 12208A-04
- Contains LoRaWAN™ component 9337A-CMABZ

This paragraph pertains to 915 MHz Smart-Vue Pro™ wireless devices. This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

CE - Conformity with European Regulations

This paragraph pertains to 868 MHz Smart-Vue ProTM wireless devices. The Thermo Scientific product (contains Bluetooth component BMD-300, LoRaWAN component CMWX1ZZABZ) is compliant with the essential requirements and other relevant requirements of the following standards and/or normative documents.

- Directives:
 - 2014/53/EU Radio Equipment Directive (RED)
 - 2014/30/EU EMC Directive
 - 2014/35/EU Low Voltage Directive
 - 2011/65/EU and the amendment of (EU) 2015/863 Restriction of Hazardous Substances Directive
- In application of the following standards
 - ETSI EN 300 220-2 V3.1.1
 - EN 301 489-1 V2.2.1
 - EN 301 489-3: V2.1.1
 - EN 301 489-17 V3.2.1
 - EN 300 328 V2.2.2
 - UL/CSA 61010-1: 2012 3rd edition and IEC/EN 61010-1: 2010 3rd edition



CAUTION: Any changes or modifications not expressly approved by Thermo Scientific could void the user's authority to operate the equipment.



RoHS Compliance

The wireless device is in compliance with the EU Directive 2011/65/EU (Restriction of the Use of Certain Hazardous Substances in Electronic and Electrical Equipment) and the amendment of (EU) 2015/863. Do not dispose of this product with household trash. Thermo Scientific recycles this product under certain conditions. Contact us for more information.

Smart Siren User Guide Regulatory Information

Introduction

This guide describes how to prepare your siren up for use with the Smart-Vue Pro wireless monitoring system.

The Thermo Fisher Scientific Smart Siren is the perfect addition to your lab or storage facility's monitoring solution.

As part of your Smart-Vue Pro monitoring system, this LoRaWAN enabled device alerts you in case of alarms, such as sensor readings that exceed programmed limits as well as other types of technical alarms.

Just place the Smart Siren in a convenient location and use the Smart-Vue Pro web application to create an alert strategy that includes the device. The siren can be used in addition to other alert mechanisms, such as e-mail, voice notification, and text message sent to your phone.

The Smart-Vue Pro system activates the siren wirelessly if one of your data loggers, network devices, or even the siren itself, encounters an alarm.

The siren even has a backup battery that maintains the LoRaWAN wireless connection in order to be able to notify the system in case of a power outage.

With its flashing red light and (adjustable) siren sound, you'll never miss an alarm.

Note: Detailed configuration instructions and software settings are provided in the Smart-Vue Pro Web Application User Guide available in the Help section of the web application.

Package Contents

- Smart Siren and antenna
- AC power adapter with 1.5 meter (about 5 ft.) cable and 4 international plug sizes;
 100-240 V (50/60 Hz) AC→12 V DC – 1.0 A
- Mounting kit with magnet and 2-sided Velcro® tape.

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Key Features

Applications	Audiovisual notification in case alarms are detected by your Smart-Vue Pro system		
Compatibility	For use with Smart-Vue Pro LoRaWAN-based monitoring solutions		
Connectivity	 LoRaWAN™ long-range wireless technology (range up to 16 km/10 miles line-of-sight(1)) Bluetooth® Low Energy for wireless firmware upgrade 		
Push-Button	• A long press (> 3 seconds) on the button tests the network connectivity with Smart Vue Pro web server. The LED flashes GREEN if the test is passed. If the test fails, it is indicated in RED.		
	• Snooze		
Power Supply	 110-240 V input auto-switching power adapter and international plugs (included) 1.5 m (about 5 feet) cable 12 V 1.0 A output Auto-switch to backup battery (with alert in case of power outage) 		
Battery	 3.6 V backup battery Non-rechargeable, non-replaceable Maintains LoRaWAN™ connectivity to notify system in case of power outage 		
Sound	Adjustable siren volume from 60 dBA to 100 dBA (± 10%)		
LED	Green/red status indicator		
Operating Conditions	 0°C to +50°C (32°F to 122°F) 0 to 90% RH (non-condensing) 		
Storage Conditions	 -10°C to +60°C (14°F to 140°F) 0 to 99.99% RH (non-condensing) 		
Mounting and Installation	 Mounting kit for use with provided Velcro® or magnet Maximum mounting height < 2 meters 		
Casing	For indoor use only ABS and polycarbonate plastic		
Dimensions	• 160 x 80 x 83 mm (6.3 x 3.2 x 3.3 in.)		
Weight	• 400 g (14.1 oz.) including battery		
Certifications	• CE, FCC, IC		

Requirements and Recommendations

For the purposes of this installation guide we assume that:

- Your access to the Smart-Vue Pro web platform and application is configured and you have appropriate access rights to configure devices in the system.
- LoRaWAN wireless coverage is available at the location where you will be using the siren.

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What is a Smart Siren?

Smart Sirens are used to raise visual and audio alerts if alarm conditions are detected in your

Smart -Vue Pro wireless monitoring system. Alarms can be configured in the Smart-Vue Pro web application for any or all of your end-point modules and/groups.

For example, you can configure a data logger to trigger an alarm if the temperature exceeds or drops below a specified limit. The alarm limits and values depend on the type of data logger you are using. The siren is triggered when an alarm is detected by the web platform.

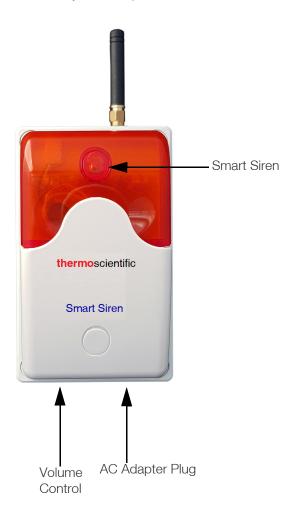


Figure 1. Smart Siren

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Architecture Overview

Thermo Fisher Scientific sirens connect wirelessly to your LoRaWAN receiver, just as the other wireless modules in your network:

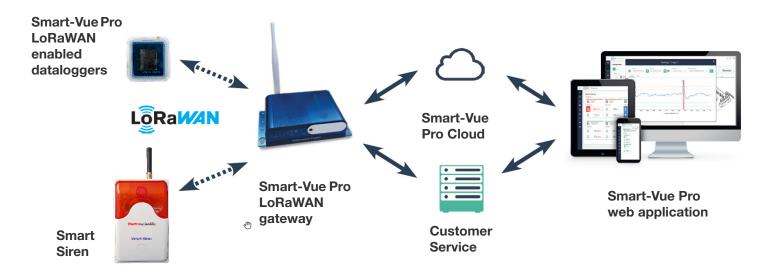


Figure 2. Smart Siren as part of your Smart-Vue Pro monitoring solution

The Smart-Vue Pro web monitoring platform triggers the siren wirelessly when it detects an alarm condition on an end-module or repeater.

General Requirements and Recommendations

- For safety reasons, the siren should be mounted less than 2 meters (about 6.5 feet) from the floor.
- The AC adapter used for your Smart Siren should be plugged into an uninterruptible power supply (UPS).
- Weekly manual system testing should be performed as defined in your Standard Operating Procedure (SOP).
- Thermo Fisher Scientific recommends Installation and Operational Qualifications (IQ/OQ) be performed before initial use.

Where to Find More Information

The use and operation of your Smart Siren is described in the Smart-Vue Pro web application user guide. You may click on **Help** — **Online Help** — **User guides** to open directly from the web application interface.

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Using the Smart Siren

This section assumes that your access to the Smart-Vue Pro web platform and application is configured and you have appropriate access rights to configure devices in the system. You will need application manager role to access certain configuration options.

Placement for Best Wireless Performance

For optimal operation, follow these recommendations when physically placing your device:

- Do not place the siren within 40 cm (16 in.) of another module or wireless device.
- Make sure the wireless module is not placed on an electrical conduit or cable tray (such as for computer network cables).
- For best results, place the module so that it faces the general direction of the receiver antenna if possible.
- Keep about 20 cm (8 in.) of clear space around the module. For example, a module that is "stuck" between two refrigerators may not communicate effectively.
- Place your siren where people will not bump into it or unplug it (no more than 2 meters (6.5 ft.) from the floor).
- To ensure that the AC adapter does not get unplugged accidentally, use a power socket that is also elevated from the floor and/or shield the cord in a protective conduit that is fixed to the wall (or within the wall).

The siren is a critical device in your wireless monitoring system. Therefore, we recommend that you keep it plugged it into an Uninterruptible Power Supply or safety plug.

Mounting Kit



CAUTION: For safety reasons, the siren should be mounted less than 2 meters (about 6.5 feet) from the floor.

1. For strong adhesion, wipe and dry the back of the siren and the mounting surface on which you intend to place the unit.

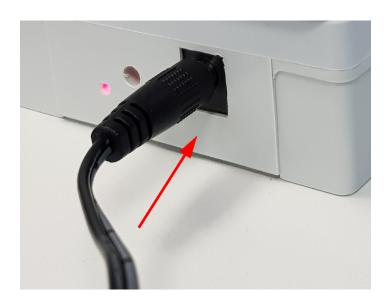
2. Velcro: Attach one side of the Velcro tape to the back of the siren and the other on the wall where you intend to place the unit.

Magnet: Remove the adhesive backing and attach the magnet to the siren.

3. Place the siren on mounting surface.

AC Adapter

1. Plug the AC adapter into the siren as shown below. The plug should slide firmly into the socket on the siren.





WARNING: Do not open the Smart Siren casing. There are no user-serviceable parts inside. Opening the casing voids the manufacturer warranty.

- 2. Plug the AC adapter into an uninterruptible power supply or wall outlet, a LED next to plug shall be turned **ON** in **GREEN**.
- 3. When operating on battery, the LED turns to **RED**.
- 4. After 1 minute operation on battery, device shall turn **OFF**, by emitting a notification to webapp.

Using the Smart Siren User Guide

Battery

The battery in the Smart Siren is used to send an "AC unplugged" event to the Smart-Vue Pro Web Application. Once the device sends the unplug event to the Smart-Vue Pro Web application, the device will go into sleep mode until it is connected to AC power.

A communication failure alarm will be triggered if data from the Smart Siren is not received by the Smart-Vue Pro Cloud server after a defined time interval as configured in the Smart-Vue Pro Application, with or without the AC adapter connected to the Smart Siren.

In case of a low battery, the "low battery" event is generated by the Smart Siren and is sent to the Smart-Vue Pro Web application. In normal use, when the device is plugged into AC power, the battery will not discharge. Battery life is extended as long as the device is plugged into AC power.

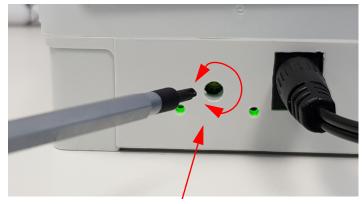
Cleaning Instructions

You may occasionally need to clean your siren modules, depending on conditions at your site. Here are some recommendations and guidelines for cleaning your siren:

- 1. Always unplug the device from its AC power source when cleaning with any type of liquid.
- 2. Clean the module using a soft cloth lightly moistened with water, a detergent or isopropanol alcohol.
- 3. Do not use any aggressive cleaning agents or scratching cleansers that might damage your Smart Siren.
- 4. Do not submerse the siren in any liquid, as the casing is not waterproof.

Adjusting Siren Volume

The siren volume is adjustable from 60 dBA to 100 dBA (± 10%). Adjust the volume to meet your needs by turning the screw-knob inside the cavity on the bottom of the unit as shown here:



Volume: Clockwise tuning shall increase the volume and anticlock wise tuning shall decrease the volume.

Note: Use a appropriate star screw driver for adjusting the volume.

Snooze: A short press on the push button snoozes the buzzer locally i.e. the sound is muted and LED is turned OFF until Smart-Vue Pro webapp sends a new alarm or rings for an on going alarm after 12 hours.

Buzzer shall be muted for 12 hours or till a new alarm is detected on the datalogger or Webapp.

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Appendix 1 - Troubleshooting

What is Strobe LED?

Strobe LED is the RED alarm LED used for alarm indication.

How do we perform snooze operation?

A short press on the push button snoozes the buzzer locally i.e. the sound is muted and LED is turned **OFF** until Smart-Vue Pro webapp sends a new alarm or after 12 hours it shall ring back for an ongoing alarm.

How much time will buzzer gets snoozed if we select snooze button?

Buzzer shall be muted for 12 hours or till a new alarm is detected on the datalogger.

Ho do we configure the Smart Siren?

Smart Siren shall be added in the Smart-Vue Pro webapp. Refer Smart-Vue Pro webapp user guide for configuration details.

From where do we get the input commands to smart siren, so that they generates siren or buzzer?

When Smart-Vue Pro webapp detects a new alarm, then webapp sends the information to Smart Siren via Lorawan gateway.

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Smart-Vue Pro Installation Procedure

1. Ensure Smart-Vue Pro Quatro is connected with Sensors and sensor value is shown in Show sensors screen. Example: Smart Sensor value displayed in Show sensors screen.



Figure 3. Sensor Screen

2. Ensure LoRaWAN is ON in Smart-Vue Pro Quatro. In Smart Vue Pro Quatro device, Click Menu -**Advanced** — give the code which is set in Web app which is added by User during configuring the user setting i.e., Pin code set in web app by the user or by default it is 000000. Then in Advanced, once a valid code is entered, select the **LoRaWAN** — select **ON** option from **ON/OFF** to enable LoRaWAN connectivity.

Note: The code is the Pin code set in webapp by the user. Default it is 000000.

- After giving a valid code in Advanced, select **LoRaWAN** and select **ON** option. Now, LoRaWAN Connectivity is enabled.
- 3. Select **Menu** and select **Advanced** and then click on LoRaWAN and select Network. Select the Thermo Scientific option (or) for Onpremise installation, select "custom" as shown below.

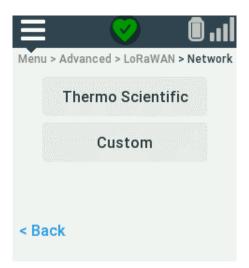


Figure 4. LoRaWAN Network Options

- 4. Select your country from the drop-down and Save.
- 5. To communicate with the cloud in Multitech LoRaWAN web browser page, configure the Network in Smart-Vue Pro LoRaWAN settings. Refer to the Settings in the Smart Vue Pro LoRaWAN user guide to know more about setting up of different networks like WiFi and Ethernet.
 - **Ethernet Configuration:**
 - Click on **Setup** → **Network** Interfaces → Options (Edit) for "eth0" (1). Click on the edit icon (1) for the network interface you want to edit as shown.

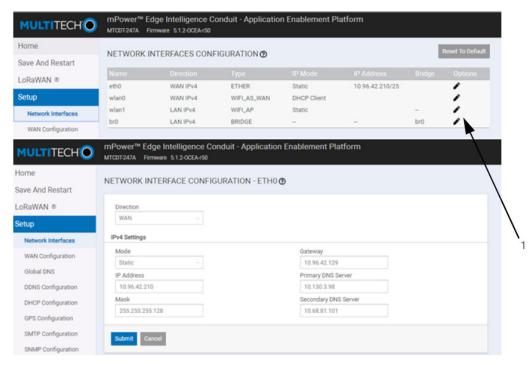


Figure 5. Ethernet Configuration page

b. WiFi Configuration:

Click Wireless in Setup section and select WiFi as WAN and add the desired Network. Select enabled option
and click Submit to save the settings, select Save and Restart.

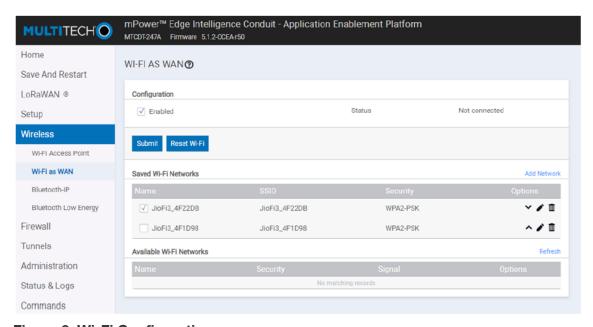


Figure 6. Wi-Fi Configuration page

c. In Smart-Vue Pro LoRaWAN page, after infrastructure is added in webapp, click on "Test LoRaWAN Server" (This works when you configure your network as described in the Setting section of Smart-Vue Pro LoRaWAN user Guide).

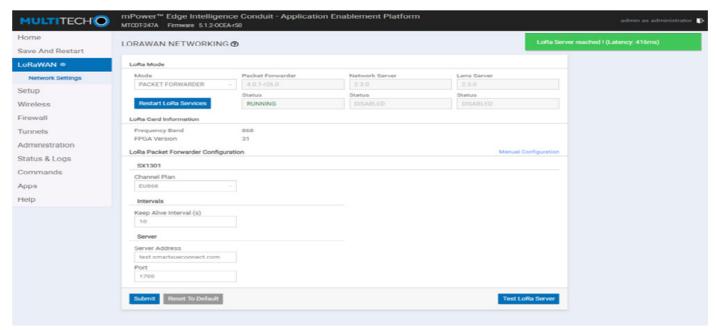


Figure 7. LoRaWAN connectivity page

- 6. Configuration in web app
 - a. In Data loggers page, add the Data logger name (Smart-Vue Pro Quatro) which is under test.

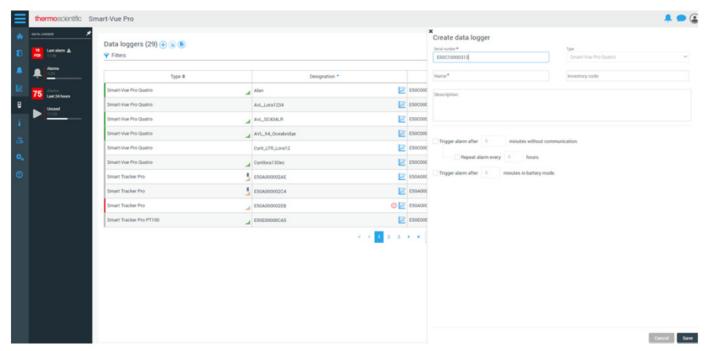


Figure 8. Create Data logger page

7. Ensure data logger is added.

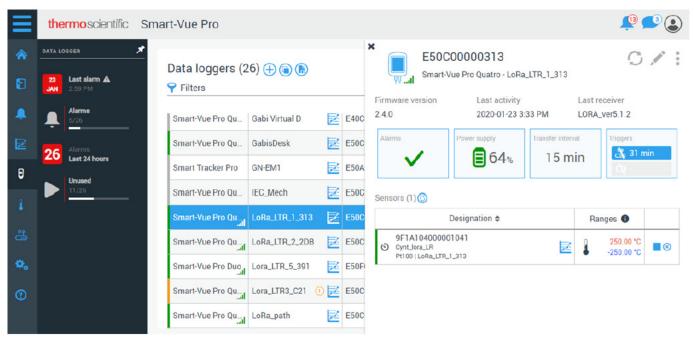


Figure 9. Sensor serial number display

- 8. In Sensor page, verify the associated sensor serial number shown.
- 9. In Infrastructure, add the details of LoRaWAN.

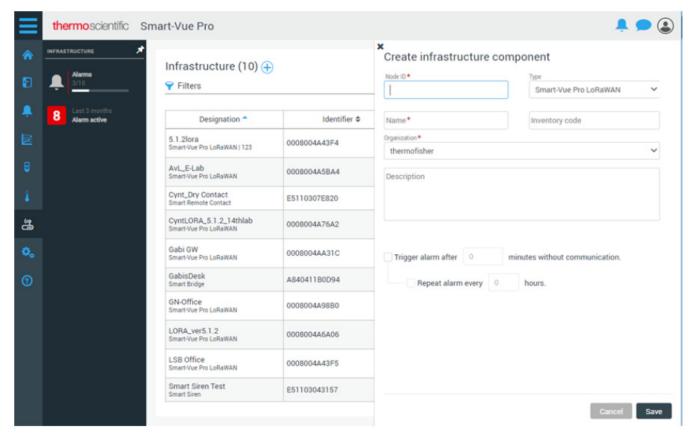


Figure 10. Create Infrastructure

10. To add a gateway, in serial number field, enter the node id mentioned on the Gateway label.

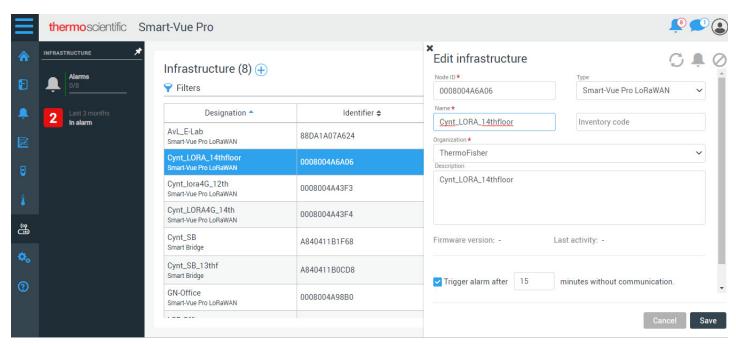


Figure 11. Enter Node ID

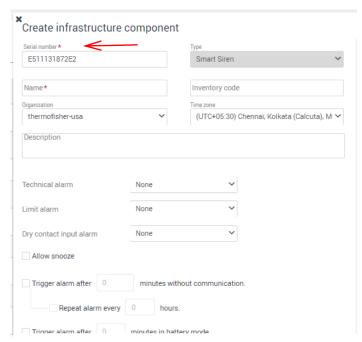


Figure 12. Filling the details

11. Link the device and its sensors to an equipment which are under test.

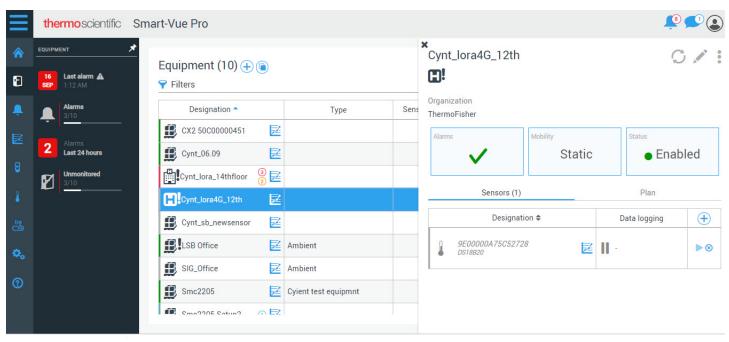


Figure 13. Create Equipment

12. To add sensor to an equipment, open the equipment created and click on '+' in equipment details page in sensor section.

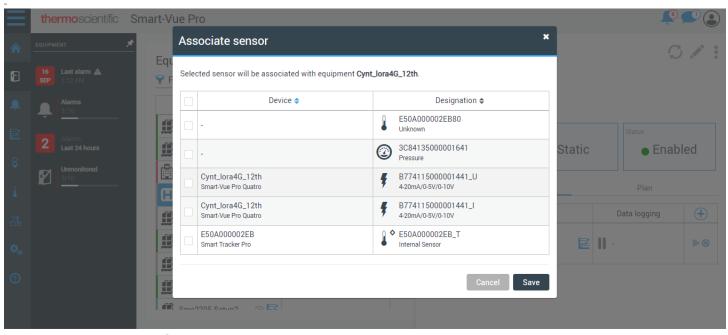


Figure 14. Associating Sensor

15. After successfully adding the equipment, device and testing the Lora coverage on SVP Quatro, start the data logging from either Equipment page or Data logger page by clicking on the play icon.

16. In Equipment page, click start data logging.

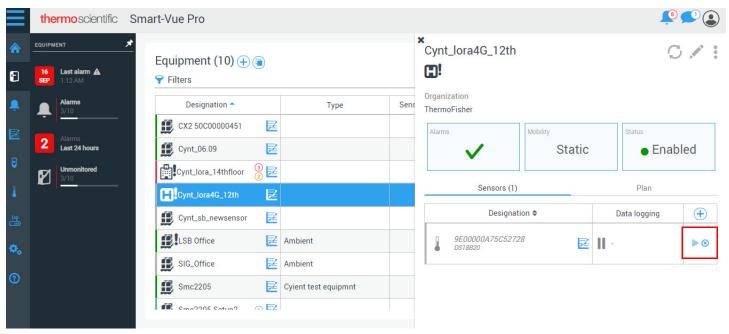
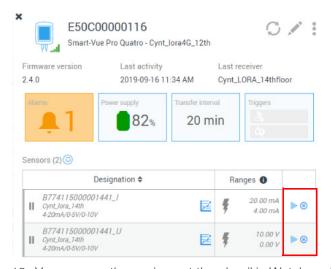


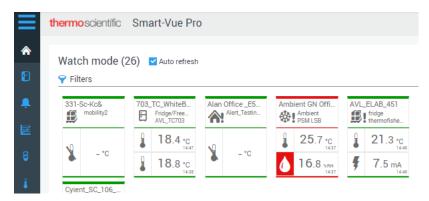
Figure 15. Starting Data logging from the Equipment page

17. You can also start from Data logger page



18. You can see the equipment thumbnail in Watchmode when data logging is in progress.

Note: For more details refer the user guide of the module.



- 19. Set up procedure for Smart Siren in Web app:
 - a. In Web app, click **Menu** \longrightarrow **Infrastructure** \longrightarrow **Create Infrastructure**.

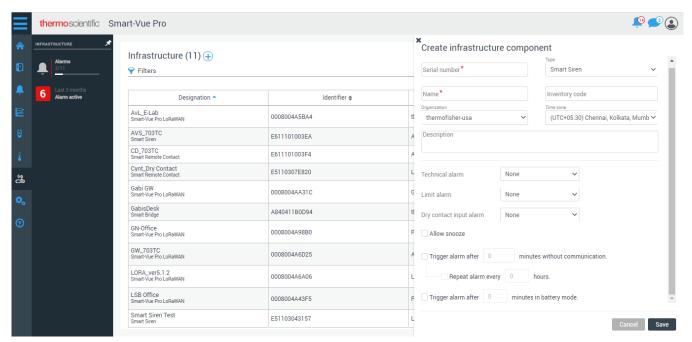


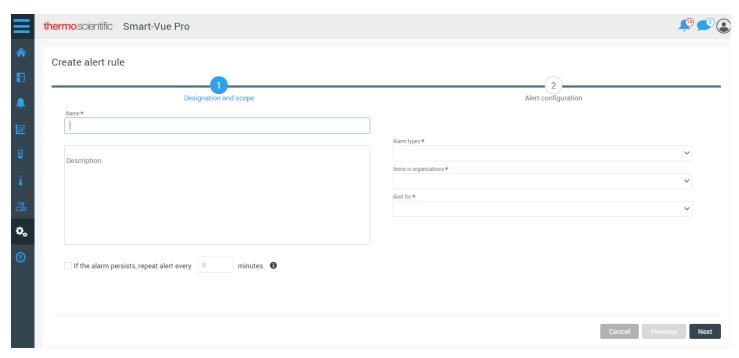
Figure 16. Create Infrastructure

- b. Enter your Smart Siren Serial number which is present on the Smart Siren device. Select the type as "Smart Siren".
- c. Enter a valid Name and Description and select your Organization and Time zone from the drop down.
- d. For Technical and Limit alarms, select your desired output type from Smart Siren.
- To Snooze off the buzzer of Smart Siren, select the check box of Allow snooze when Smart Siren is snoozed.
 A small press on the push button snoozes the buzzer locally i.e., the sound is muted and LED is turned OFF until Smart- Vue Pro web app sends a new alarm or after 12 hours it shall chime back for an ongoing alarm.
- f. Select the check box of Trigger/ Repeat alarm and enter number of minutes/hours based on your requirement (alarm after communication lost and battery mode) and click on Save.

Alert Configuration for Smart Siren in Web app

In the Web app, Alerts can be configured as required. Based on the type of alerts configured, the user will receive emails/ sms/voice calls when smart siren is in alarm configuration.

a. Navigate to Menu → Configuration → Alerts → Add Alert rule.



- Enter Alert rule name and Description.
- Select the Alarm Types, Item in Organization, Alert for and Criticality.

Note: The selected Item in Organization should be same as Organization of the Smart Siren, LoRaWAN and the Equipment to which the LoRaWAN is communicating to.

Note: When **Alert for** is selected as "Mobile equipment", "Shipments" or "Static equipment", dropdown field "Criticality" is displayed.

Note: Options selected in Alert for and Criticality fields should be in accordance with the Equipment type to which the LoRaWAN is communicating to, in order to successfully receive the Alerts.

- d. Select the check box of If the alarm persists.... Enter number of minutes in the text box to receive repeated voice call alerts, till the alarm condition is not acknowledged or ended.
- e. Click on Next and select Time slot and Day off from the drop down.
- To configure Time slot: Navigate to **Menu** Configuration → Time slots → Add Time slot.

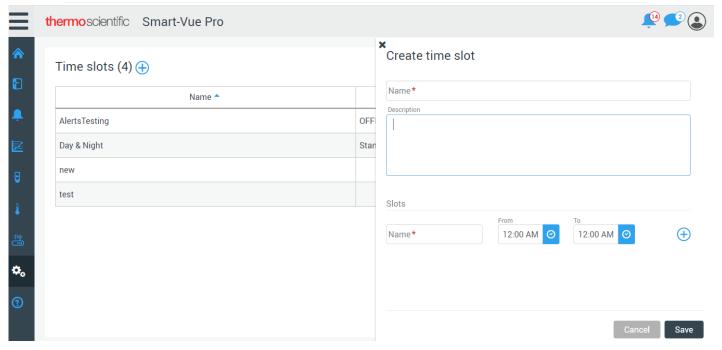
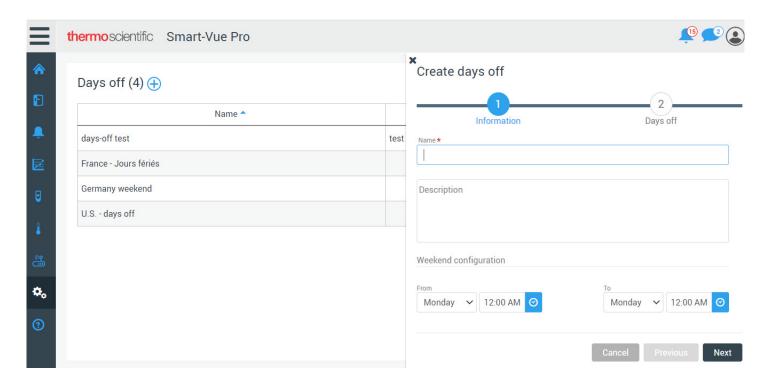


Figure 17. Time slots configuration

To configure Days off: Navigate to **Menu** → **Configuration** → **Days off** → **Add Day off**.



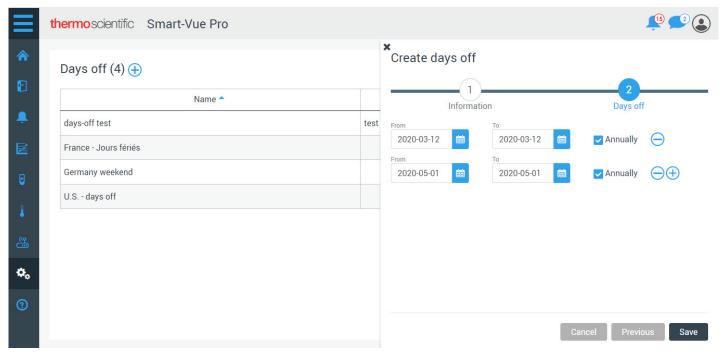


Figure 18. Days off Configuration

In Create Alert rule page, select the users from the Available list and move them to Alerted users list, under each Time slot tab. Selected Users will receive alerts based on the time slot.

Note: User can choose not to receive any alerts by configuring Days off. Users that are selected from the Available users list under particular Day off tab while creating Alert rule would only receive the alert during the Day off period.

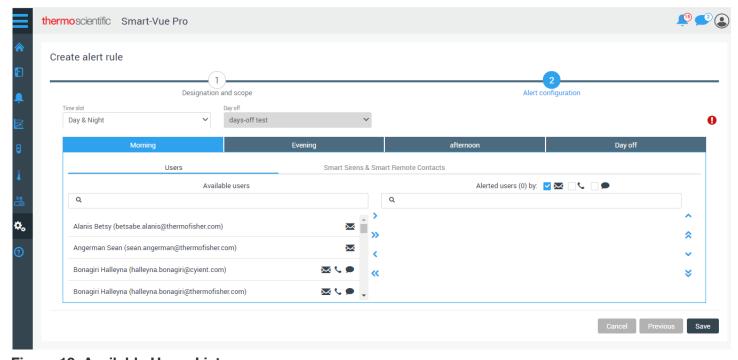


Figure 19. Available Users List

- 20. Click on the **Smart Sirens and Smart Remote Contacts** to select the Smart Siren for alert configuration.
- 21. User should provide a valid email id and contact number for SMS and Voice call alerts.
- 22. Click on the **Profile picture** of the user on the top right corner of the page and go to **Profile Options Edit** contact information.

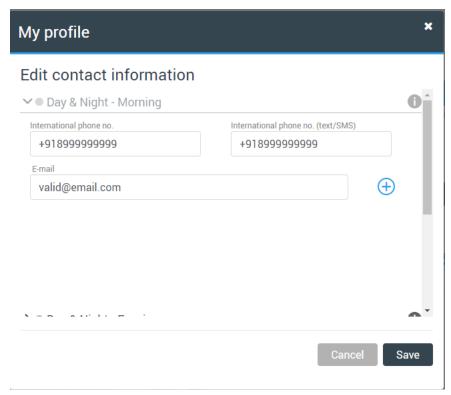


Figure 20. Contact information

WEEE Compliance

WEEE Compliance. This product is required to comply with the European Union's Waste Electrical & Electronic Equipment (WEEE) Directive 2012/19/EU. It is marked with the following symbol. Thermo Fisher Scientific has contracted with one or more recycling/disposal companies in each EU Member State, and this product should be disposed of or recycled through them. Further information on our compliance with these Directives, the recyclers in your country, and information on Thermo Scientific products which may assist the detection of substances subject to the RoHS Directive are available at www.thermofisher.com under Services & Support.

Great Britain



WEEE Konformittät. Dieses Produkt muss die EU Waste Electrical & Electronic Equipment (WEEE) Richtlinie 2012/19/EU erfüllen. Das Produkt ist durch folgendes Symbol gekennzeichnet. Thermo Fisher Scientific hat Vereinbarungen getroffen mit Verwertungs-/Entsorgungsanlagen in allen EU-Mitgliederstaaten und dieses Produkt muss durch diese Firmen widerverwetet oder entsorgt werden. Mehr Informationen über die Einhaltung dieser Anweisungen durch Thermo Scientific, dieVerwerter und Hinweise die Ihnen nützlich sein können, die Thermo Fisher Scientific Produkte zu identizfizieren,

Deutschland



die unter diese RoHS. Anweisungfallen, finden Sie unter www.thermofisher.com unter Services & Support.

Conformità WEEE. Questo prodotto deve rispondere alla direttiva dell' Unione Europea 2012/19/EU in merito ai Rifiuti degli Apparecchi Elettrici ed Elettronici (WEEE). È marcato col seguente simbolo. Thermo Fischer Scientific ha stipulato contratti con una o diverse società di riciclaggio/smaltimento in ognuno degli Stati Membri Europei. Questo prodotto verrà smaltito o riciclato tramite queste medesime. Ulteriori informazioni sulla conformità di Thermo Fisher Scientific con queste Direttive, l'elenco delle ditte di riciclaggio nel Vostro paese e informazioni sui prodotti Thermo Scientific che possono essere utili alla rilevazione di sostanze soggette alla Direttiva RoHS sono disponibili sul sito www.thermofisher.com in Servizi e Supporto.

Italia



www.triermonsher.com in Servizi e Supporto.

Conformité WEEE. Ce produit doit être conforme à la directive euro-péenne (2012/19/EU) des Déchets d'Equipements Electriques et Electroniques (DEEE). Il est marqué par le symbole suivant. Thermo Fisher Scientific s'est associé avec une ou plusieurs compagnies de recyclage dans chaque état membre de l'union européenne et ce produit devraitêtre collecté ou recyclé par celles-ci. Davantage d'informations sur laconformité de Thermo Fisher Scientific à ces directives, les recycleurs dans votre pays et les informations sur les produits Thermo Fisher Scientific qui peuvent aider le détection des substances sujettes à la directive RoHS sont disponibles sur www.thermofisher.com sous Services et Assistance.

France



thermoscientific

Contact Information

Thermo Fisher Scientific products are backed by a global technical support team ready to support your applications. We offer cold storage accessories, including remote alarms, temperature recorders, and validation services. Visit www.thermofisher.com or call:

Countries	Sales	Services
North America	+1 866 984 3766	(800) 438-4851
India	1800 22 8374, +91 22 6716 2200	+91 22 6716 2200
China	+800 810 5118, +400 650 5118	+8621 68654588
Japan	+81 3 5826 1616	+81 3 3816 3355
Australia	+61 39757 4300	1 300 735 292
Austria	+43 1 801 40 0	+43 1 801 40 0
Belgium	+32 53 73 42 41	+32 2 482 30 30
France	+33 2 2803 2180	+33 2 2803 2180
Germany	0800 1 536 376, +49 6184 90 6000	0800 1 536 376
Italy	+32 02 95059 552	+39 02 95059 552, 432 254 375
Netherlands	+31 76 579 55 55	+31 76 571 4440
Nordic/Baltic/CIS	+358 9 329 10200	+358 9 329 100
Russia	+7 812 703 4215	+7 812 703 4215
Spain/Portugal	+34 93 223 09 18	+34 93 223 09 18
Switzerland	+41 44 454 12 22	+41 44 454 12 12
UK/Ireland	+44 870 609 9203	+44 870 609 9203
New Zealand	+64 9 980 6700	+64 9 980 6700
Other Asian Countries	+852 2885 4613	+852 2885 4613
Countries not listed	+49 6184 90 6000	+49 6184 90 6000

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