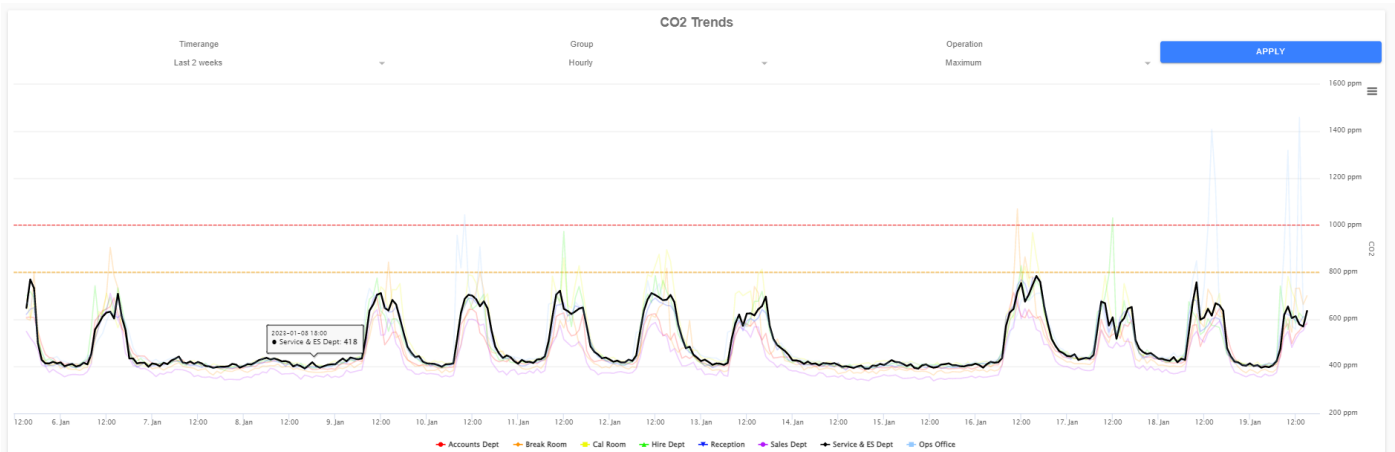


AIR-MET SCIENTIFIC LIVESENSE CLOUD PORTAL

User Guide



Please read this user guide thoroughly and retain for future reference

Edition B | JANUARY 2023

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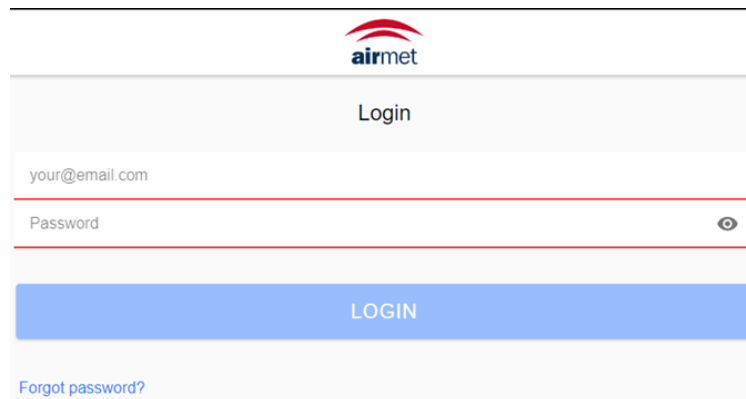
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1. ACCESS LIVESENSE PLATFORM

LOGGING IN

To access the LiveSense Platform, insert into your browser; www.airmetapp.livesense.com.au and sign in using the credentials provide to you by your administrator.

The username must be your e-mail account. If you cannot remember your password, you may utilise the “Forgot Password” function to reset this.



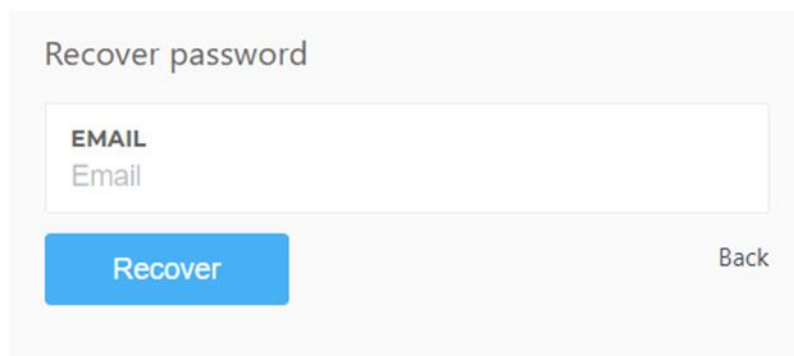
The screenshot shows the Airmet login interface. At the top center is the Airmet logo, which consists of a red curved line above the word "airmet" in blue. Below the logo is the word "Login" in a grey box. Underneath is a form with two input fields: the first is labeled "your@email.com" and the second is labeled "Password" with a red eye icon to its right. Below the form is a large blue button labeled "LOGIN". At the bottom left of the form area is a blue link labeled "Forgot password?".

Figure 1.1 – Login landing page

PASSWORD RECOVERY

To recover your password, press the “Forgot Password” link, insert your e-mail address and press recover. In a few minutes you will receive an e-mail in your inbox with the instructions to reset your password.

If you don't receive this e-mail within 30 minutes, check your junk inbox folder. If the password still isn't available, contact your administrator (EngineeredSolutions@airmet.com.au).



The screenshot shows the "Recover password" screen. At the top is the title "Recover password". Below it is a large white input field with the label "EMAIL" and the placeholder text "Email". Below the input field is a blue button labeled "Recover" and a grey link labeled "Back".

Figure 1.2 – Password Recovery Screen

2. NAVIGATION OVERVIEW

ORGANISATIONAL STRUCTURE

The organisational structure on LiveSense follows a tree structure. At the top level, we find the supervisor company, on the level below you can find the different sub-divisions (clients), and finally at the bottom you will find the individual stations.

With reference to the below **Station List** you may see an example of this structure.

- Air-Met Scientific (Organisation)
 - Air-Met Customers (sub-division e.g. Client or Rental)
 - Air-Met Sales Demo (Client)
 - ER1120007 (Device)

Navigation Tree

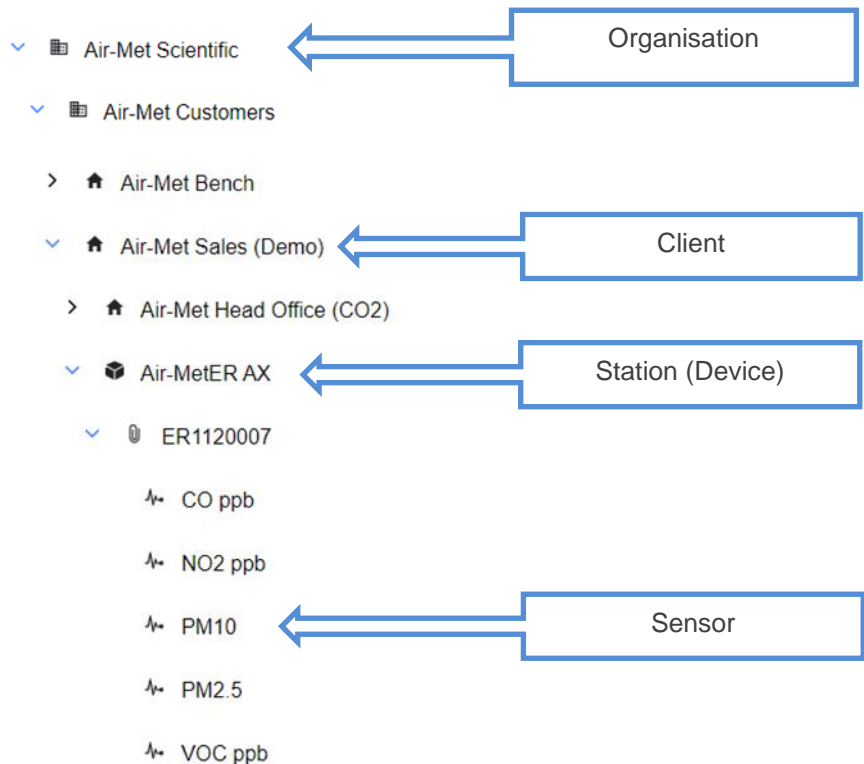


Figure 2.1 – Organisational Structure Example

HOW TO NAVIGATE BETWEEN CONTEXTS

Depending on the level you are, your context changes. To navigate between contexts, you can use the Navigation Bar on the top left corner of the screen.



Statistics - Air-Met Scientific

Figure 2.2 – Navigation Bar Access

Once selected you will be able to navigate up and down the organisation's structure.

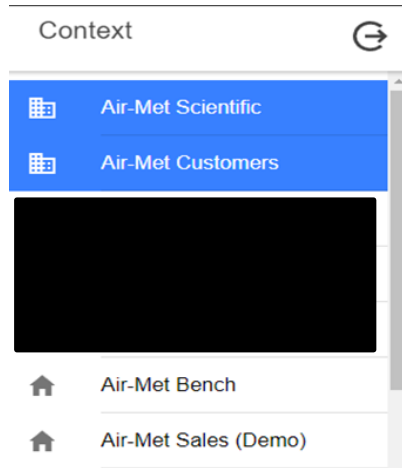


Figure 2.3 – Context Menu – Customer Level

HOW TO CHECK CONTEXT

If you're unsure of your current context, you may simply use Navigation bar to validate the location as current context will be presented in **Blue**.

Furthermore, you can look to the taskbar on the bottom of the page in which again the selected 'view' will be displayed in **Blue**.

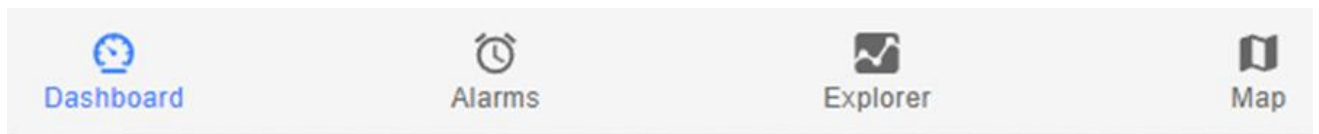


Figure 2.4 – Task Bar

3. DASHBOARD VIEW

TOP LEVEL VIEW

The dashboard view was designed to allow the user to have a quick view of the status of the stations (entities) and alarms.

NOTE: Depending on your permissions you might not have access to this view.

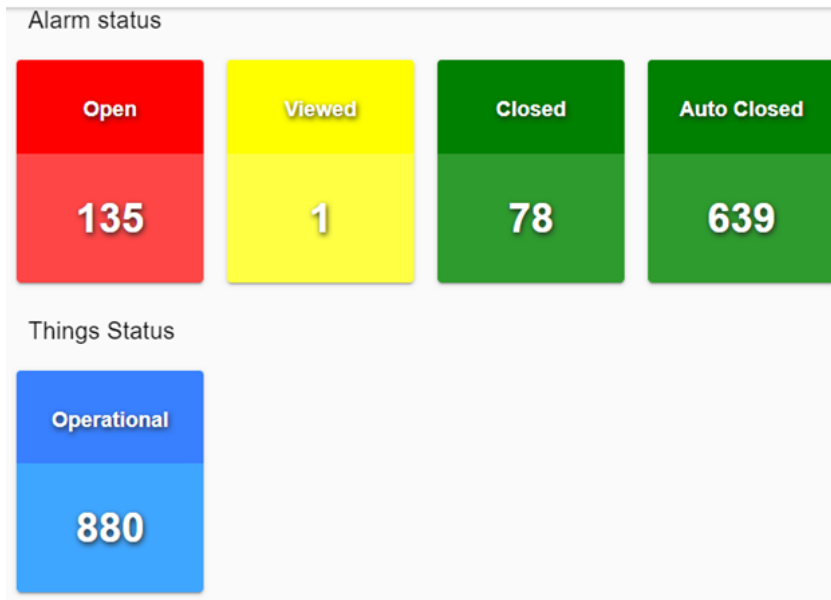


Figure 3.1 – Dashboard Display

Open: Alarms currently requiring action.

Viewed: Alarms that have been 'opened' and yet to be closed.

Close: Latching alarms not in alarm.

Auto-Closed: Non-Latching alarms not in alarm.

Operations: Quantity of stations.

NOTE: It is possible to display graphs on the main landing page, if you do these default indicators will not be present.

CLIENT LEVEL VIEW

If you navigate to the client level, you will have an overview of the key widgets of each station.

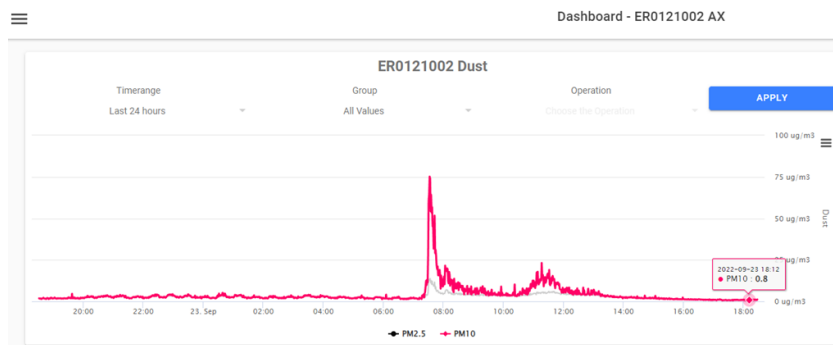


Figure 3.2 – Sensor Display (Client Level)

The 'widgets' displayed at this level are dependent on your requirements. Specific to the 'graph' widget you may also adjust settings retrospectively which may assist in displaying information with more application understanding e.g., Indoor CO₂ monitoring, you may wish to only show the maximum value each hour every day.

In the charts you can navigate between different views:

Time-range: From 'Last 50 Values' to 'Last 12 Months'

Group: From 'All Values' to 'Yearly' Values.

Operation: Average, Rounded Average, Sum, Maximum or Minimum

NOTE: Operations are only available when a 'Time-range' is selected.

4. STATION LIST VIEW

OVERVIEW

The station list allows you to quickly manage clients, stations, devices, and sensors. This may be accessed by the menu bar at the bottom of your dashboard 'Station List'.

Navigation Tree



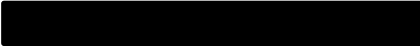





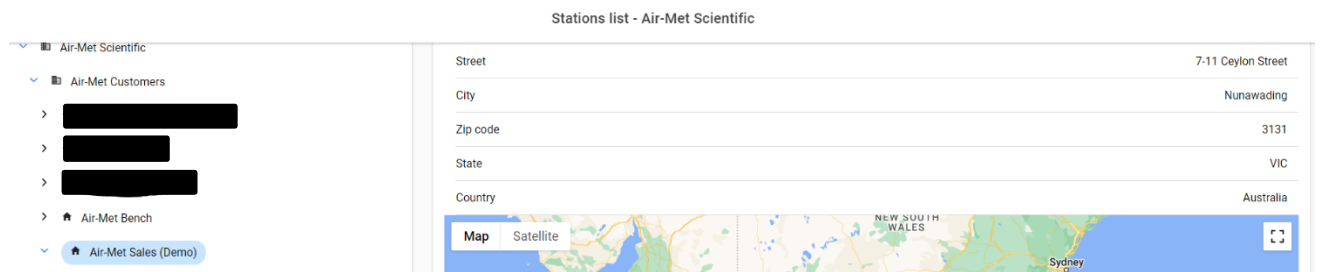
- ▼  Air-Met Scientific
- ▼  Air-Met Customers
 - > 
 - > 
 - > 
 - >  Air-Met Bench
- ▼  Air-Met Sales (Demo)
- >  Air-Met Head Office (CO2)

Figure 4.1 – Station List Representation

CLIENT LEVEL

While in client level, clicking on the point of interest will allow you to see further details.

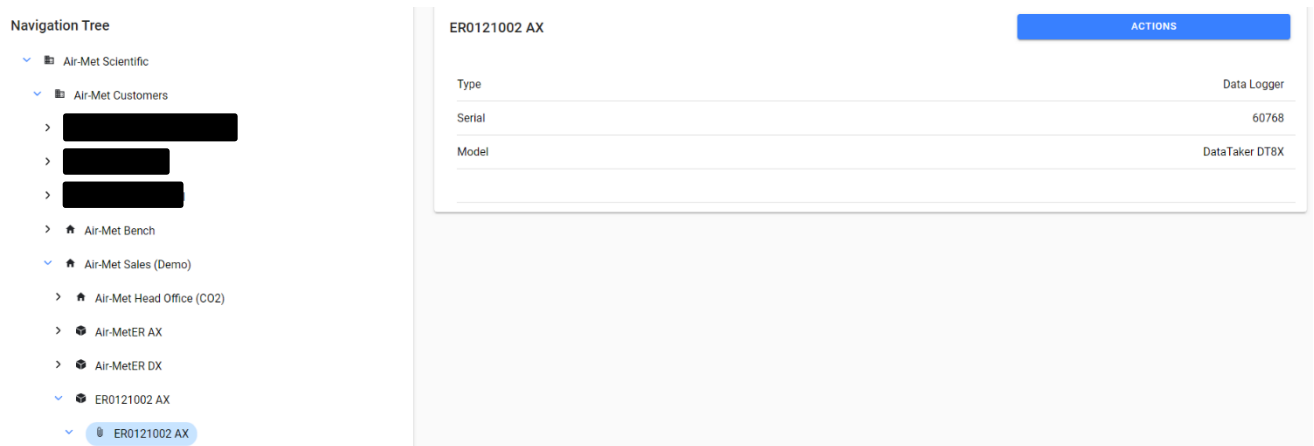


Field	Value
Street	7-11 Ceylon Street
City	Nunawading
Zip code	3131
State	VIC
Country	Australia

Figure 4.2 – Station List – Client Level

DEVICE LEVEL

At the device level, clicking the relevant name will show you the device details including the model and serial number.



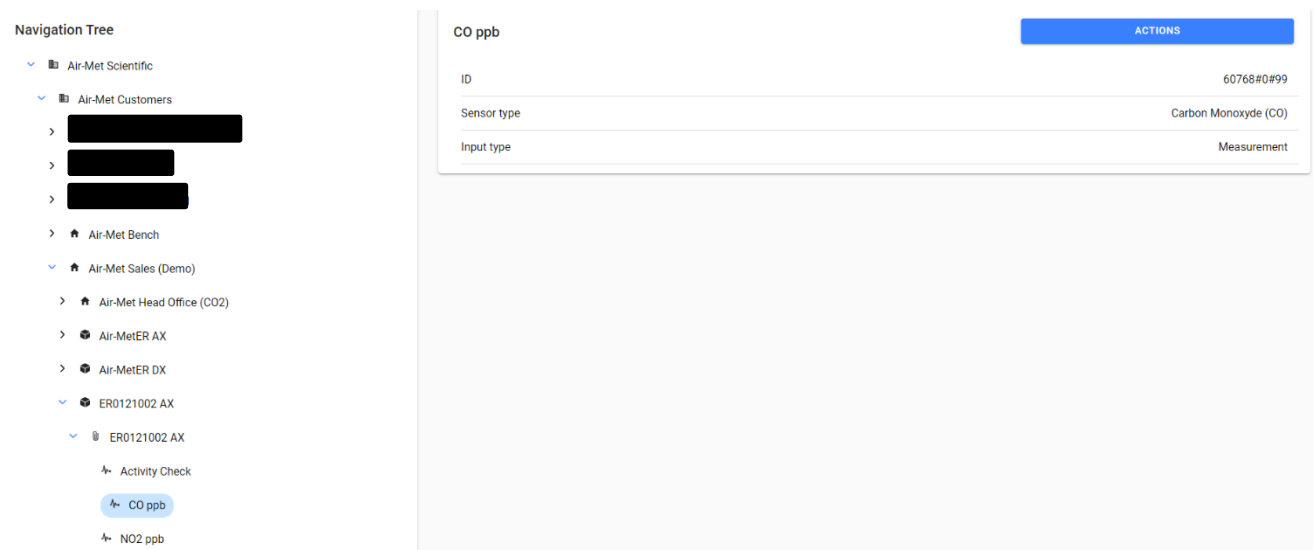
The screenshot shows the 'Navigation Tree' on the left with 'ER0121002 AX' selected. The main panel displays the following details for the device:

ER0121002 AX	
Type	Data Logger
Serial	60768
Model	DataTaker DT8X

Figure 4.3 – Station List – Device Level

SENSOR LEVEL

At the sensor level, clicking the sensor's name will display the sensor details including the sensor identifier (CodeID), sensor type and sensor subtype.



The screenshot shows the 'Navigation Tree' on the left with 'CO ppb' selected under the 'ER0121002 AX' station. The main panel displays the following details for the sensor:

CO ppb	
ID	60768#0#99
Sensor type	Carbon Monoxide (CO)
Input type	Measurement

Figure 4.4 – Station List – Sensor Level

At any point should you need to update naming conventions or locations (where applicable), this may be done by clicking on the blue 'Actions' button in the top right. If you do not have this function

ACTIONS	ACTIONS	ACTIONS
Actions	Actions	Actions
Add element	Add element	Formula
Update controller	Update thing	Virtual Sensor
Downlink	Move thing	Update sensor
Delete controller	Delete thing	Delete sensor

5. EXPLORER VIEW

OVERVIEW

The goal of this view is to allow the user to perform statistical data analysis between different sensors. This feature is very flexible and allows you to compare sensors from different stations. In the end you are also able to export the data in a tabular format.

This is accessed from the taskbar at the bottom of your screen.

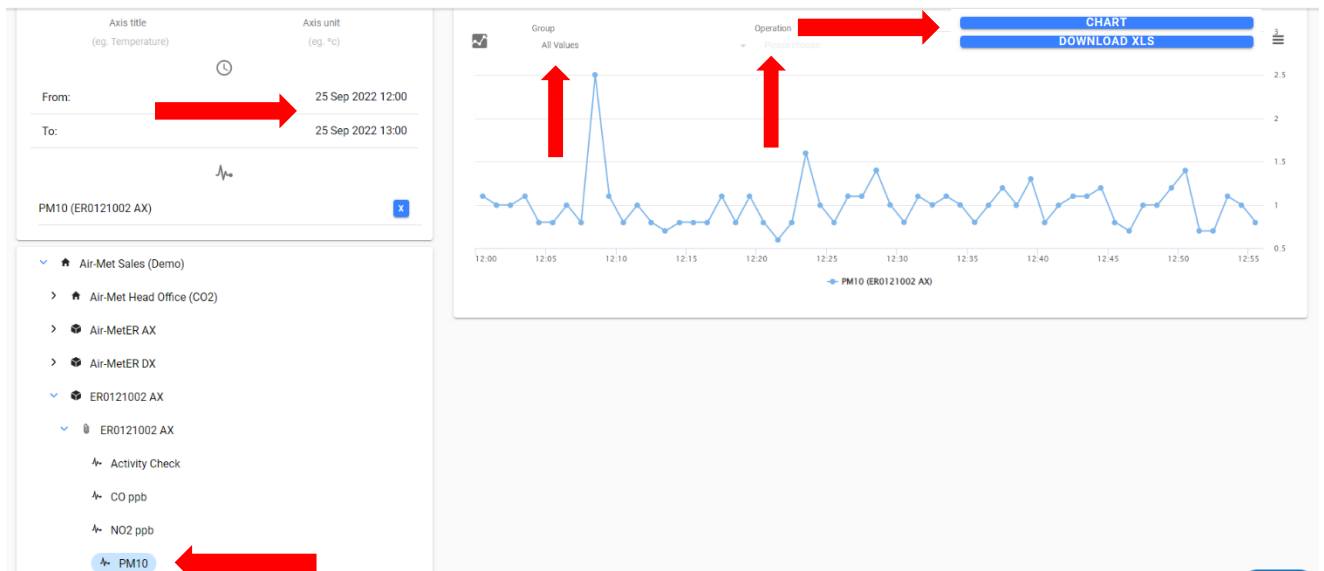


Figure 5.1 – Customer Reports View

ANALYSE DATA

To analyse data there are a few key points that must be selected to begin.

1. Set the time-range.
2. Select the sensor(s) you wish to analyse.
3. Set the 'Group' and 'Operation' (if required).
4. Next you can choose to either:
 - a. Chart. As per Figure 5.1 display the graph for your review, or,
 - b. 'Download XLS' which will provide a excel file local to your device in a .csv format.

6. ALARM VIEW

VIEW FIRED ALARMS

The alarms' view page allows you to have a quick overview of the alarm's status. To facilitate the reading, the system uses colours to represent the alarm status:

- **Open (Red)** – Fired alarm.
- **Viewed (Yellow)** – The alarm is no longer open, but the user decided not to close it yet.
- **OK (Green)** – No alarms open or viewed.
- **OFF (Dark-Grey)** – The alarm has been turned off.

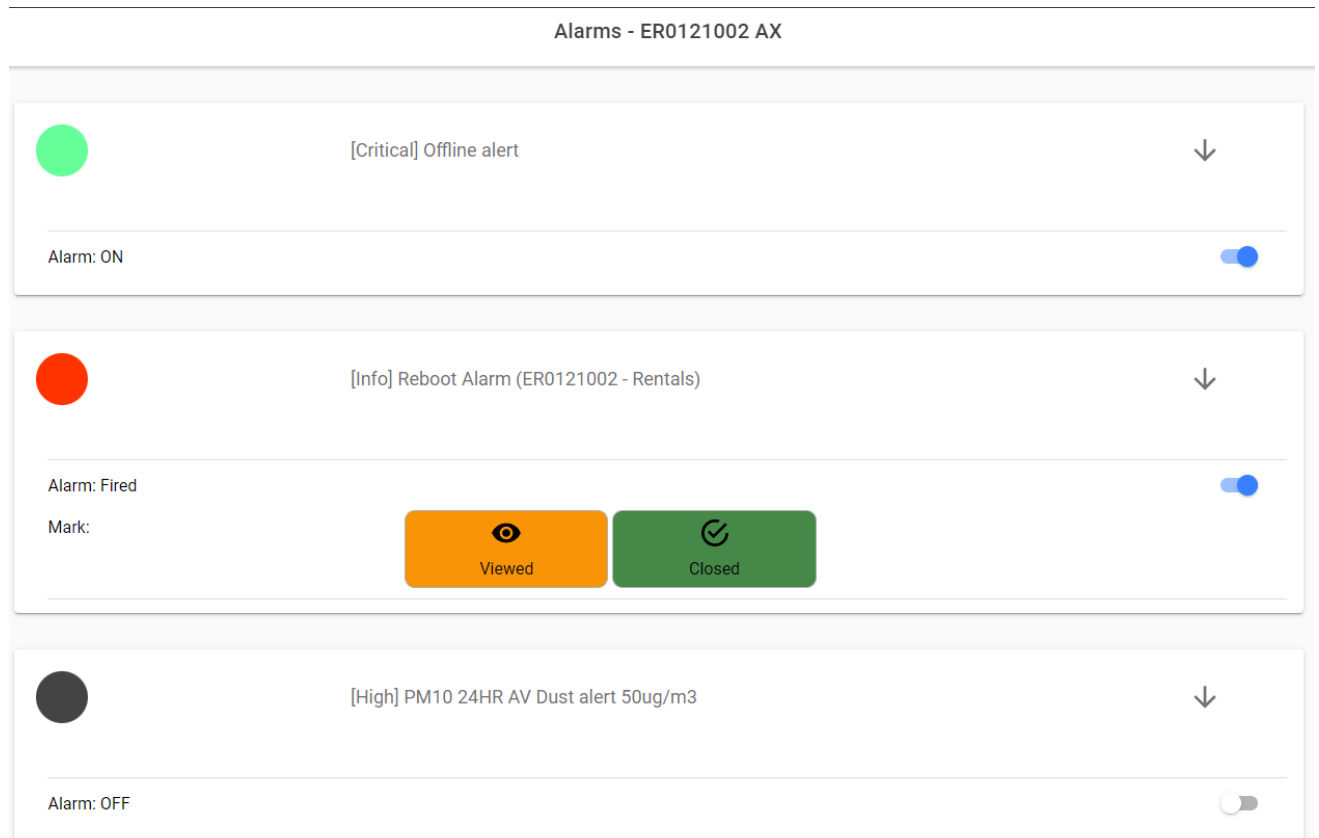


Figure 6.1 – View Alarms

CLOSE ALARMS

To close an alarm, you can click on the respective 'Viewed' or 'Closed' buttons to action as required.

***NOTE: Depending on alarm setup, you may opt to auto-close alarms – If selected this function would not apply.**



Figure 6.2 – Close/View Alarms

Should you click on these a window will appear, should you wish to add a comment you may do so e.g. "Construction works occurring, high PM values expected".



Figure 6.3 – Add Comment

VIEW ALARMS HISTORY

Use the arrow icon to expand the alarm. The page icon if click will display history of the alarm including; when opened, closed and/or viewed.

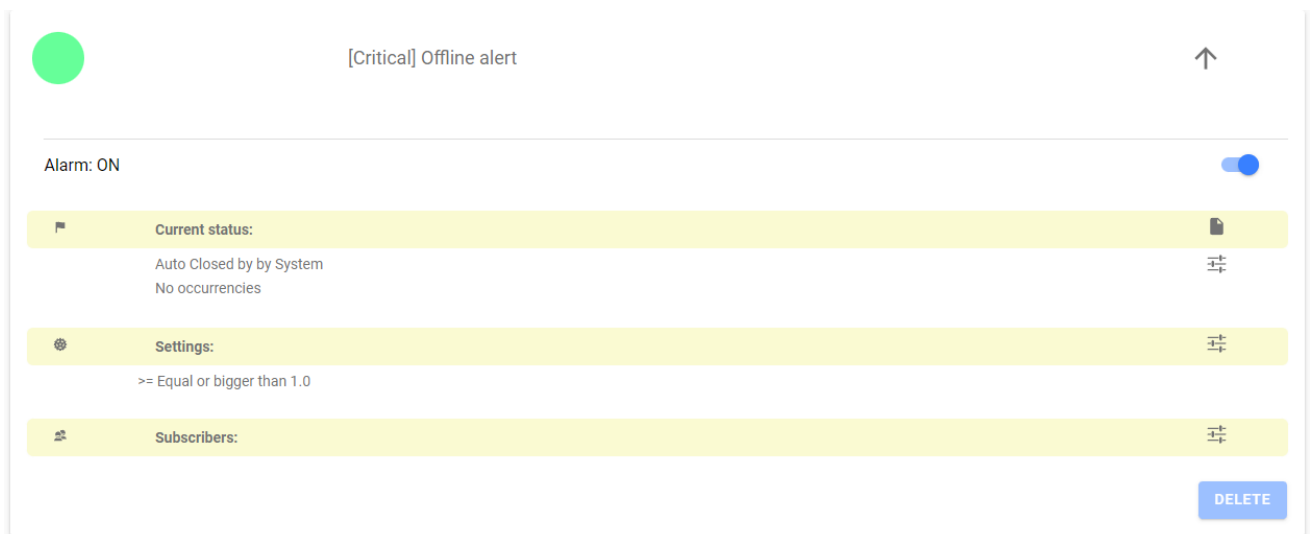


Figure 6.4 – History Icon

Alarm history			
Status	Time	User	
Auto Closed	24/09/2022, 11:05:30 pm	System	↑
Open	24/09/2022, 1:05:30 am	System	

Figure 6.5 – Alarm History

7. VIEW PROFILE

On occasion you may need to update user settings on the account, as users are added to the 'Organisation' you need to ensure you are located at the organisation level on the navigation bar. Once on the correct level navigate to 'Users' via your taskbar and simply click on your organisation name to review your current users.



Figure 7.1 – Users Overview

Add User: Allows you to add a user.

Actions: When clicked relative to the user next to e.g. 'Guest'

NOTE: If the email address has changed you will need to delete the user and add a new.

Edit User

Guest
Demo
+61499999999
fixedsystems@airmet.com.au

Figure 7.2 – User Details

On the edit page you will be able to edit the name of the user.

8. DASHBOARD

CREATE PANEL

To add a panel to a dashboard, navigate the correct 'Client>Station' also ensuring you're on the 'Dashboard' setting on your task bar. In the top right of your screen, click the + icon.

Dashboard - Air-Met Sales (Demo)



Figure 8.1 – Add Panel

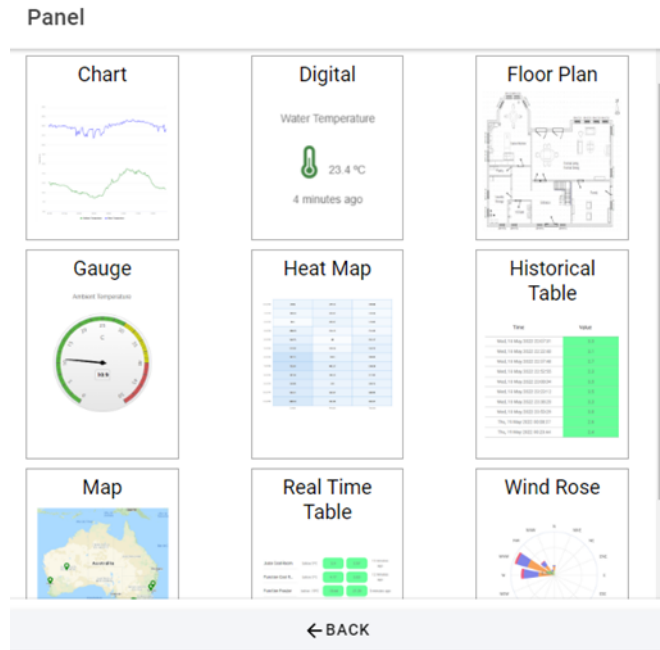


Figure 8.2 – Panel List

A variety of panels are available for creation, the most common panels will be explained in the following sections including:

- **Chart** – Standard line chart for single or multiple parameters
- **Wind Rose** – Wind rose arrangement for wind speed and direction sensors
- **Gauge** – Simple gauge widget for OK, Warning and Danger quick view

CREATE CHART PANEL

To create a chart panel, select the 'chart' image.

In the panel details view you will be able to name the chart and select the data aggregation or 'time range'. Once complete click 'next' to continue.

Panel

Configure the default settings

Chart name Particulate Matter	Group Hourly
Minimum length of 5 characters Last 24 hours	Operation Average

← BACK NEXT

Figure 8.3 – Chart Creation

In the edit station menu, you will be able to edit the station's name and location. The address can be altered using the address form or by moving the marker on the map. Simply click "Save" to finish.

Panel

Axis

+ NEW

REMOVE

Title Particulate Matter	Label ug/m3		
Side Left	Scale Manual	Minimum 0	Maximum 200

← BACK NEXT

Figure 8.4 – Add Axis

When adding an axis you may input the following:

- **Axis Title**
- **Label (Unit e.g. ug/m3)**
- **Assign a 'side'**
 - This will assign the 'unit' to the left or right side of the chart
- **Scale (range)**
 - Automatic setting will scale the range based on data received from the field sensor
 - Manual relies on a range being input by the user e.g. 0-1000ppm

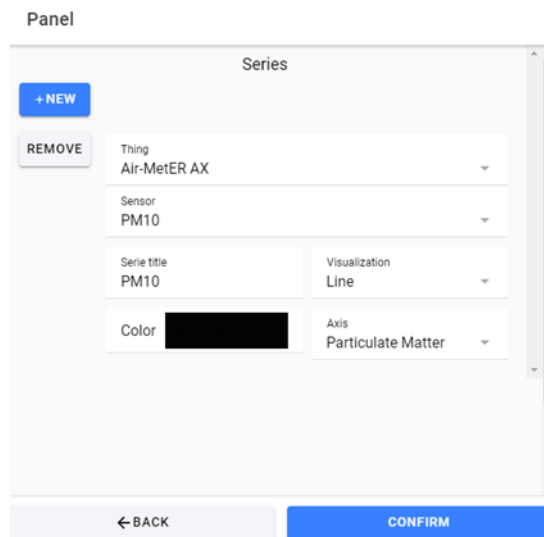


Figure 8.5 – Add Series

Next you will add a 'serie' in order to complete the chart.

- **Thing** – Select the controller the data will be 'pulled' from
- **Sensor** – Select the specific sensor
- **Title** – E.g. 'Head Office Exhaust' or simply the sensor 'PM10'
- **Visualization** – Choose the most appropriate way to display your data
 - Area graph
 - Column graph
 - Line graph
- **Select the colour**
- **Select the axis** – If multiple axis have been created, select the appropriate axis for your sensor

Should you have multiple sensors to display on the one chart, complete this process by adding another 'serie'. Once done, simply press 'Complete'. Doing so will return you to the dashboard to which your new widget will be available.

You will now notice a 'Pen' icon appears, this icon allows the ability to edit the widget.

Dashboard - Air-Met Sales (Demo)



Figure 8.6 – Edit Icon

Should you press this icon more functions will become available on the widgets on your dashboard. Pressing the 'Cog' will bring up the settings menu for the widget so you may edit. Pressing the 'X' will simply delete the widget. You will also now be able to 'resize' your widget by dragging the corners of the box in / out.

Dust Monitor Comparison



Figure 8.7 – Edit/Delete Widget

ADD WARNING/DANGER LIMITS

If you wish to overlay your chart with warning (amber) and danger (red) indications this may be done after the chart is created. If you then return to the settings options, you will see this new function available. In order for this to work you must:

1. Set the 'Scale' to manual and define it e.g. 0-100ug/m3
2. Define the warning and danger values (these must not exceed the upper 'maximum' value).

Edit Dust Monitor Comparison

Chart name Dust Monitor Comparison	Group All Values
Time range Last 24 hours	Operation Operation

Axis

NEW AXIS

REMOVE

Title Particulate Matter	Label ug/m3		
Side Right	Scale Manual	Minimum 0	Maximum 100
Plot line warning value 25	Plot line danger value 100		

Series

NEW SERIES

← BACK CONFIRM

Figure 8.8 – Edit Chart Settings

WIND ROSE PANEL

To create a wind rose panel, select the 'Wind Rose' image.

Once selected you will then be required to complete the options available:

- **Name** – Select a name for the wind rose
- **Time Range** – Select the appropriate data aggregation
 - Last 50 or 100 values
 - Last hour, 3-hours or 24-hours
 - Last week or 2-week
 - Last month, 3-months, 6-months or 12-months
- **Entity** – Select the appropriate controller
- **Wind Direction Sensor** – Select the wind direction sensor
- **Wind Speed Sensor** – Select the wind speed sensor

Windrose	
ER1120001 Wind-Rose	Thing ER1120001 Weather
Time range Last 24 hours	Direction Wind Direction
	Speed Wind Speed

Figure 8.9 – Create Wind Rose

Once complete, press 'submit' the wind-rose will now be available for viewing via the dashboard, this widget will also save in the 'add panel' function for this client

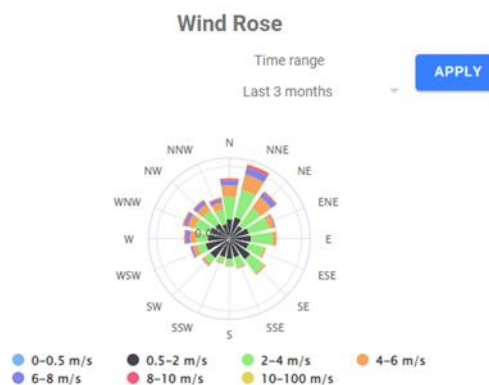


Figure 8.9 – Complete Wind Rose

GAUGE

To create a gauge panel, select the 'gauge image'.

Once selected you will be required to complete fields specific to the gauge creation:

- **Panel title** – Name the gauge
- **Entity** – Select the appropriate controller
- **Sensor** – Select the sensor data will be 'pulled' from
- **Value unit** – Input the appropriate unit E.g. ug/m3...ppm
- **Min value** – Set the minimum range of the gauge
- **Max value** – Set the maximum range of the gauge
- **Warning min** – Set where the 'warning' limit will begin on the gauge
- **Warning max** – Set where the 'warning' limit will end on the gauge
- **Danger min** – Set where the 'danger' limit will begin on the gauge
- **Danger max** – Set where the 'danger' limit will end on the gauge

Panel

Add gauge

Thing
ER0121002 AX

Solid

Sensor
PM10

Gauge name
PM10 Real-Time

Units
ug/m3

Range	Minimum range 0	Maximum range 200
Lower threshold	Minimum threshold 50	Maximum Threshold 100
Upper threshold	Minimum threshold 100	Maximum Threshold 200

← BACK

CONFIRM

Figure 8.10 – Gauge Creation

If complete, simply press 'Confirm' to have the new widget appear on your dashboard.

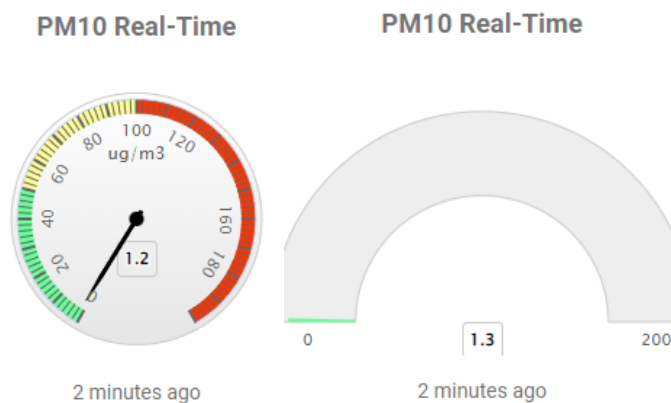


Figure 8.11 – Gauge Completed (Solid Checked vs Un-Checked)

9. USER

ADD NEW USER

To add a new user, you can navigate to the 'user' tab and click 'add user'.



Figure 9.1 – View User Page

To add a user, you must fill the following details:

- **Name** – Name of the user
- **Role** – User's role within the company
- **Permission** – Admin, User, User (View Only)
 - **Admin:** Complete access
 - **User:** Limited access, can download data, adjust and add widgets
 - **User:** Ability to view the platform only
- **Mobile Country Code** - Australia
- **Mobile** – User's phone number
- **Email** – User's email address

After submitting the form, the user will receive the instructions to set the password and the instructions to login into the system via email.

Add User

Name	
Role	
Permission	Permission ▾
Mobile Country Code	Mobile Country Code ▾
Mobile	
Email	
<input type="button" value="CANCEL"/> <input type="button" value="CONFIRM"/>	

Figure 9.2 – Add User Page

To edit a user, you can navigate to the 'user' tab, and click to 'view details' of the user you want to modify.

10. ALARM

SET NEW ALARM

Navigate to the station you wish to set a new alarm for in the context, once done, select 'Alarms' from your taskbar and click the '+' icon.

Dashboard - Air-Met Sales (Demo)



Figure 10.1 – Set New Alarm

Initially you're required to define the following:

Thing: Select the appropriate station to which the alarm relates to.

Title: Name the alarm.

Description: Describe the nature of the alarm.

Auto-Closeable: The alarm may either close automatically or latch requiring the user to view/close.

A screenshot of a web form titled "Add Alarm". The form has four input fields, each with a label and a value: "Thing" with "Air-MetER AX", "Title" with "PM10 Issue", "Description" with "PM10 readings are above maximum threshold!", and "Auto-Closeable" with "Yes". Each field has a small downward arrow on the right side. At the bottom of the form, there are two buttons: a grey "← BACK" button and a blue "NEXT" button.

Figure 10.2 – Set Alarm

In the next view you will set the configuration.

- **Occurrences:** This field is used to delay alarms: for example, if you only want to be notified after '3' consecutive values out of range you set this value as '3'. By default, we suggest '1'.
- **Aggregation:** No action.
- **State:** Chose active if you want this alarm to start working straight away, choose 'inactive' or 'draft' if you want to activate later.
- **Level:** Choose the level of the alarm. This is for reference of the user, perhaps the alarm needs action immediately or it is simply an informative alarm.

Add Alarm

Occurrences	1
Aggregation	Real Time
State	Active
Level	High

← BACK NEXT

Figure 10.3 – Rules Configuration

Click next to progress in order to configure the rules.

In the next window you are required to define the rules to be met for the alarm to be 'fired'.

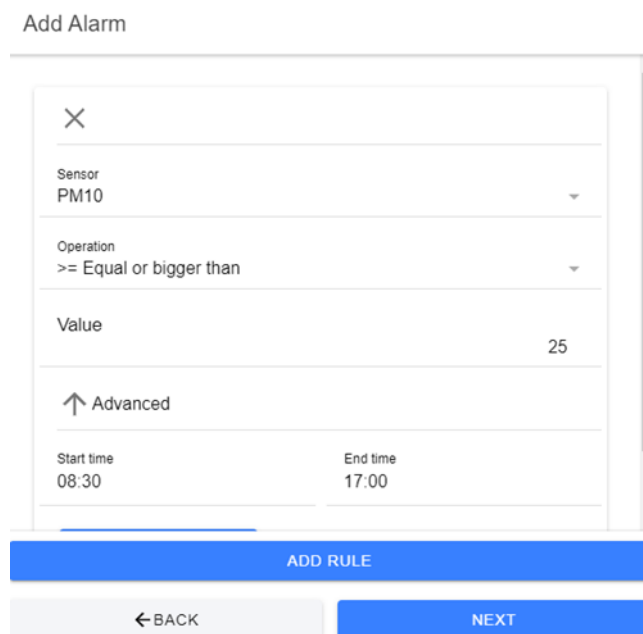
Sensor: Select the sensor that the alarm will be monitoring.

Operation: Define condition the value from the sensor will operate within.

Value: Define the value which in conjunction with the 'Operation' will be met to action the alarm.

Advanced: Set a time-range in which the alarm can only operate within.

In the example below, this alarm will only fire if the PM₁₀ sensor outputs equal or greater than 25ug/m³ between 8:30am and 5pm.



The screenshot shows a web-based configuration window titled "Add Alarm". The window contains a form with the following fields and values:

- Sensor:** PM10
- Operation:** >= Equal or bigger than
- Value:** 25
- Advanced:** (indicated by an upward arrow icon)
- Start time:** 08:30
- End time:** 17:00

At the bottom of the form are three buttons: "ADD RULE" (blue), "← BACK" (grey), and "NEXT" (blue).

Figure 10.4 – Rules Configuration

Once satisfied proceed with 'Next'. If, however you wish to add more rules, you may do so now.

NOTE: Adding multiple rules to the same alarm means that in order for the alarm to fire, all the associated rules will need to be met. In most cases it is advised to create individual alarms for rules rather than grouping them.

Now you must add a Subscriber to the alarm. Only users added to the specific client will be available to subscribe. Select the method for alerting the individual, the standard is to use email as this has no cost outcome. The standard subscription covers a maximum of 50 text messages (SMS) per month – Care should be taken when configuring alarms.

Once finished, simply press 'Confirm'. If users are not available to be subscribed, this would indicate they are not setup as a user for that specific client. Complete the alarm setup, add the new user and edit the alarm to include the new subscriber.

Add Alarm

Engineered Solutions

<input checked="" type="checkbox"/>	E-mail	engineeredolutions@air... ▾
<input type="checkbox"/>	SMS	+610412345678 ▾
<input type="checkbox"/>	Call+SMS	+610412345678 ▾

← BACK CONFIRM

Figure 10.5 – Add Subscriber

Now the alarm should be visible on the Alarms dashboard via your taskbar.

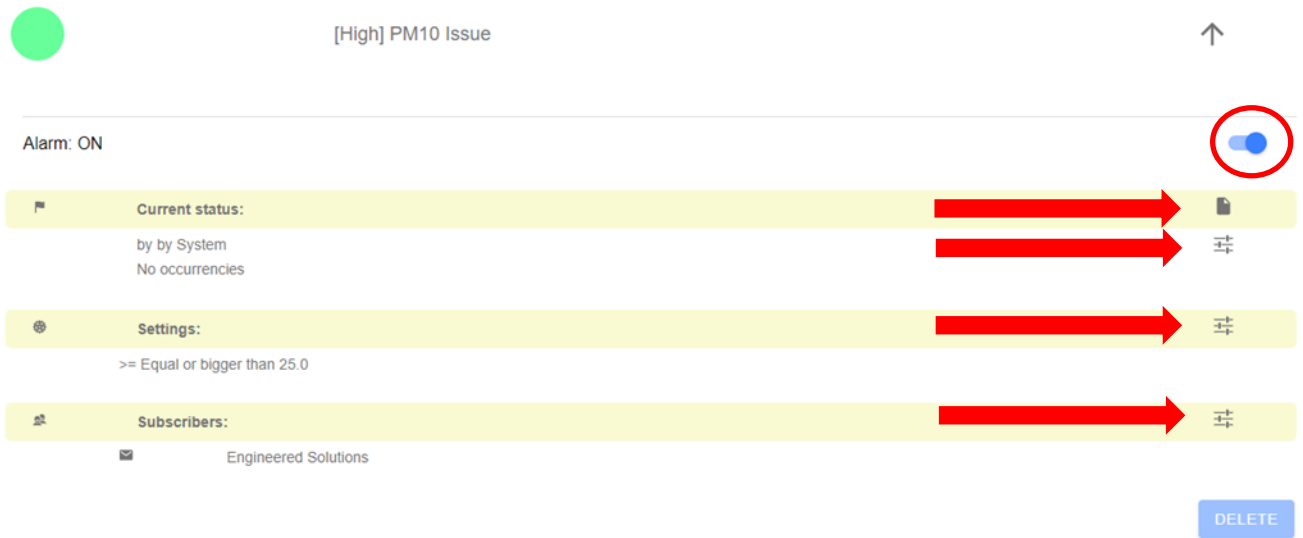


Figure 10.6 – Confirmation Page

Should you need to edit the alarm configuration or turn it off, follow the marking from top-down respectively.

Switch: Allows the alarm to be toggled 'active' or 'inactive'.

Page Icon: View history of alarm action.

Settings 1: Alarms configuration section 1.

Settings 2: Alarms configuration section 2.

Subscriber: Update subscribers.

COMMUNICATIONS & REBOOT ALARM(S)

With any new device connected to Air-Met's applications, by default the team will setup a 'Communications' (Comms) alarm and a 'Reboot' alarm.

The purpose of these alarms is to provide feedback in the event the station has lost connection and/or ceased sending data in the field, this can be a result of numerous factors however will always require investigation. Furthermore, the reboot alarm will provide a simple power cycle to the modem to reduce any possibility of 'hanging' which although might be rare can occur with cellular technology.

NOTE: In the event these are not present on your platform, it is recommended that you contact the Air-Met team to configure these on your behalf.

NOTE: Only client personnel will be subscribed to the 'Comms' alarm.

NOTE: Only the Engineered Solutions team will be subscribed to the reboot alarm.

CONTACT INFORMATION

AIR-MET SCIENTIFIC PTY LTD

Head Office

7-11 Ceylon Street
Nunawading VIC 3131
Australia

Postal Address

P.O. Box 133
Nunawading VIC 3131
Australia

Phone: 1800 000 744
+61 3 8878 3300

Fax: 1800 000 774
+61 3 8878 3344

Web: www.airmet.com.au
Email: sales@airmet.com.au

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