



EPSILON

Data Logger Installation and Operation Guide

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1. SAFETY

This chapter reviews the EPSILON data logger safety concerns and includes:

- [Safety Conventions](#)
- [Safety Instructions](#)
- [EPSILON Data Logger Nameplate](#)

Safety Conventions



WARNING: Indicates a potentially hazardous situation, which, if not avoided, could result in injury or death.



CAUTION: Indicates that the equipment or environment can be damaged, or data can be corrupted.



NOTE: Indicates additional information to help the user obtain optimum performance. Notes are not safety-related to the equipment or personnel.



Tip: Indicates useful information to simplify steps or procedures.

Safety Instructions

Prior to performing any work on the EPSILON data logger, become familiar with the following safety concerns:

General Safety Instructions

- Read this installation and operation guide prior to installing and servicing the system.
- Pay careful attention to all cautions and warnings in this guide.
- Installation must comply with all local electrical and plumbing codes.
- It is recommended that a licensed electrician performs all electrical connections. Improper installation could result in shock or fire hazard.
- EPSILON data logger is not intended for use by children.

Battery Safety Instructions

- BERMAD is not responsible for battery failures due to mishandling.
- Do not crush, break, or disassemble the batteries.
- Do not damage the battery label, which acts as an electrical insulation for the battery can.
- Do not install the batteries backwards, put in fire, submerge in fluids, or mix with other battery types.
- Do not weld or solder the batteries onto the battery compartment.
- Dispose of batteries in accordance with local regulations.
- Internal batteries are intended for offline mode operation.
- Contact BERMAD for battery replacement when depleted or damaged.

External Power Source Safety Instructions

- Before connecting to an external power source, ensure the external power polarity matches the one marked on the EPSILON data logger connector board.
- The power supply cables must first be connected to the EPSILON data logger power connectors before plugging into an external power source.
- The EPSILON data logger must first be unplugged from the external power source before disconnecting the power supply cables from the power connectors.



WARNING: Contact with electrical connections can cause electric shock if the power supply is turned on.

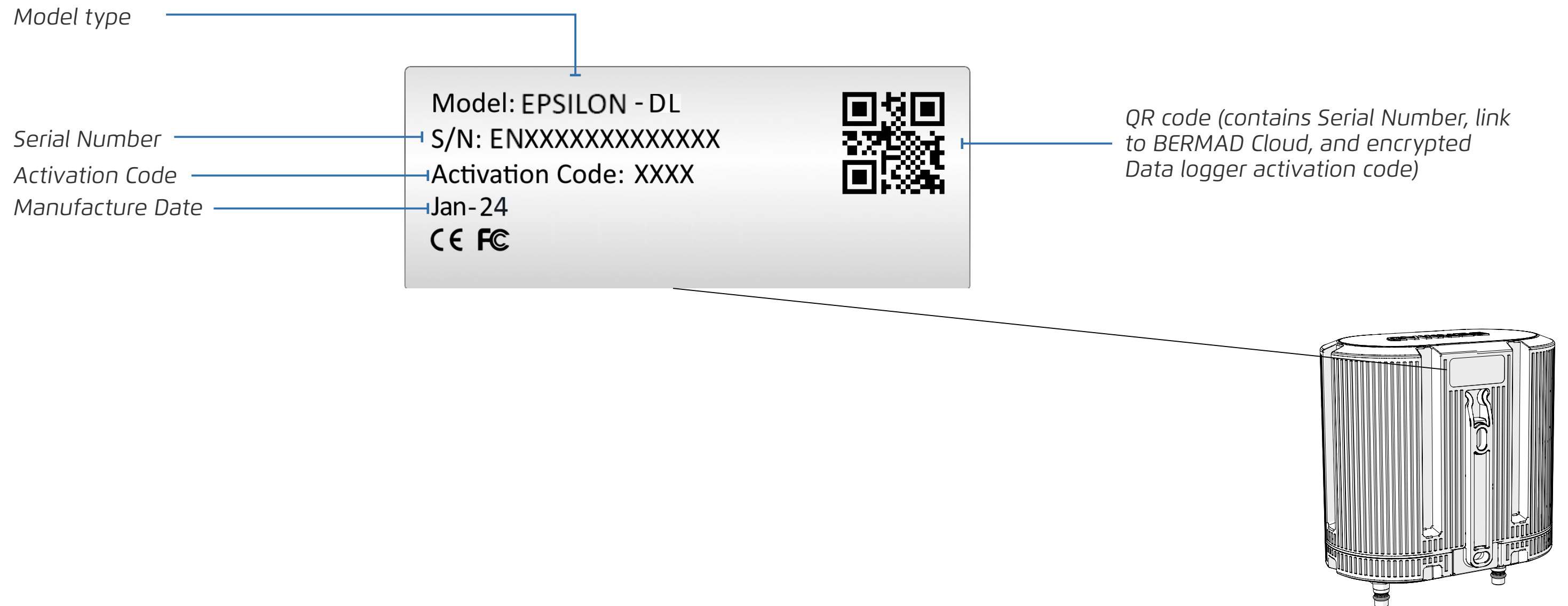
Certificates

FC CE



EPSILON Data Logger Nameplate

This EPSILON data logger nameplate is located on the back of the data logger. It contains the following information:



2. INTRODUCTION

This chapter reviews the EPSILON data logger and includes:

- [Overview](#)
- [Typical System Layout](#)
- [EPSILON Data Logger](#)
- [Cloud Management System](#)
- [Installation Kit](#)

Overview

The EPSILON data logger is used for network monitoring and system analysis, and is integral to implementing the digital twin approach for enhanced system optimization and efficiency. This ultimately ensures a dependable water supply and improved client service.

Data Logger Features

- 5-year internal battery life, or external power
- Large capacity data storage log
- Full connection to the BERMAD Cloud and other platforms via API or FTP for monitoring and remote setting.
- Intuitive and user-friendly platform
- Advanced graphs and reports
- Alert and notifications via E-mail
- Two built-in internal pressure sensors with +/- 0.5% accuracy

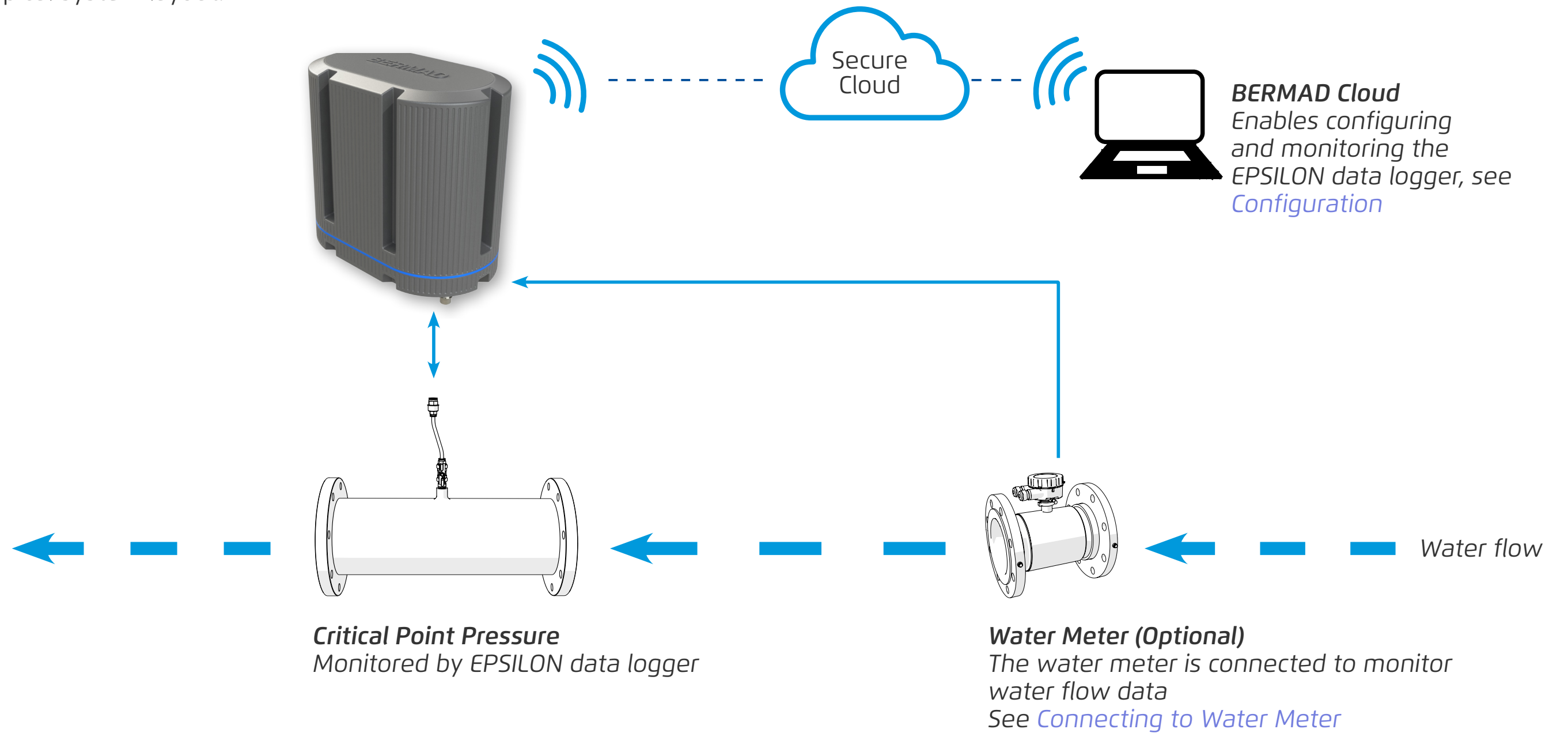
Application Features

- Monitoring and Data Logger that uses digital and analog inputs:
 - Pressure Sensors
 - A) in critical points of the DMA for pressure management
 - B) for valve operation and performance monitoring
 - Water Meters for counting the flow rate, accumulated volume and to assist water balance calculation
 - Water Level Grade in tanks, reservoirs, and water towers
 - Temperature Sensors
 - Limit Switch and Valve Position Transmitter



Typical System Layout

The chart below illustrates a typical system layout:



EPSILON Data Logger

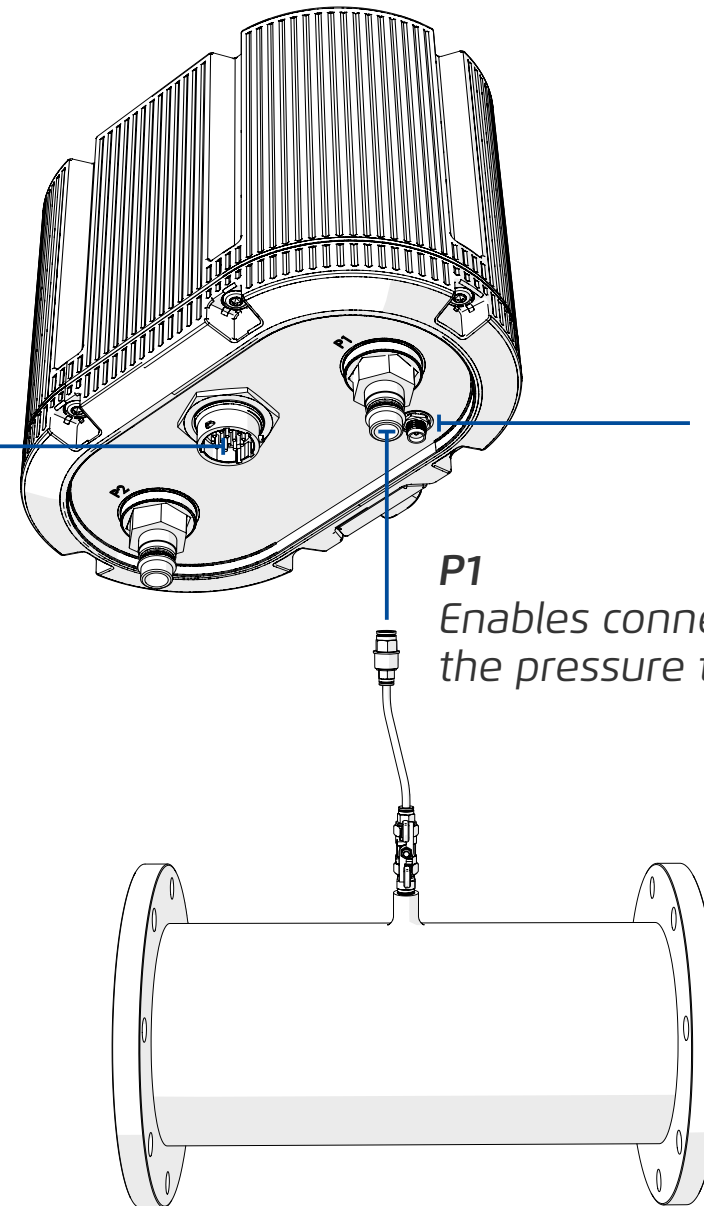
The EPSILON data logger includes the following:

EPSILON Data Logger

Includes analog sensors that measure the upstream and downstream pressures

I/O Connector

For all inputs and outputs (i.e. water meter and external power)



SMA Connector

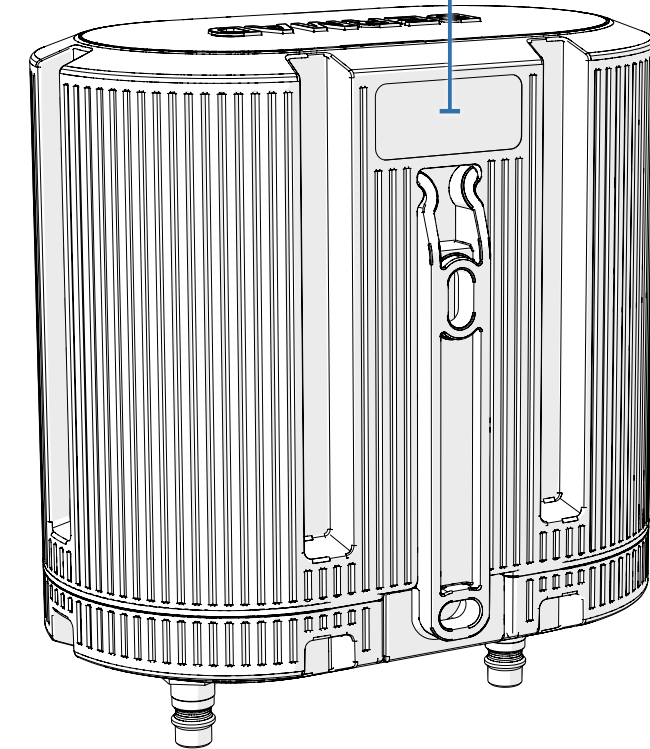
For external cellular antenna

P1

Enables connection of the pressure tube

Mounting Grooves

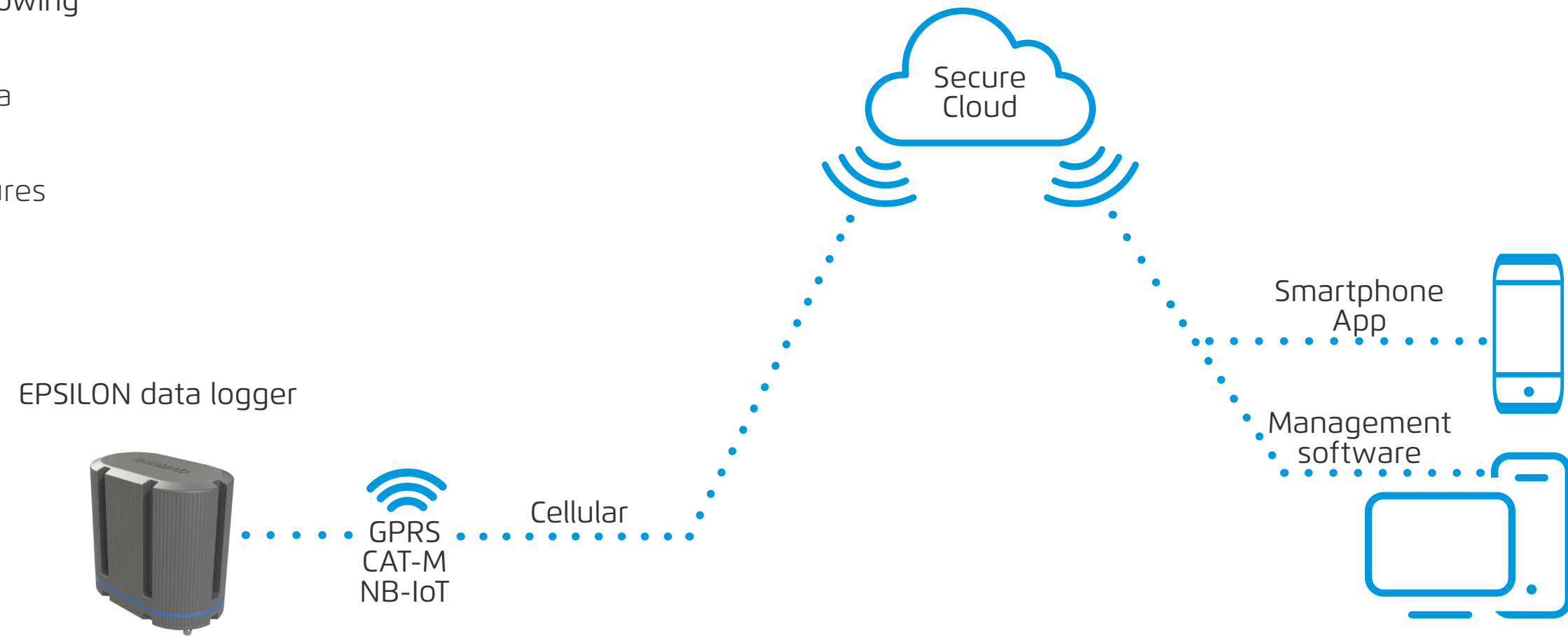
Enables mounting on a wall mount bracket



Cloud Management System

BERMAD Cloud offers web-based internet access to the EPSILON data logger and includes the following features:

- Global management of all EPSILON data loggers
- User friendly and intuitive control features
- Real time status and monitoring



Installation Kit

This section reviews the installation kit.

Serial Number	Image	Description	QTY
066000N360		NICKEL PLATED BRASS QUICK COUPLING DN5(M)X6mmTUBE	2
9901260055		1/4" S.S 316 2W 1PC BALL VALVE, H10 NPT 800PSI T HANDLE FEMALE-FEMALE (FP) type S20	2
060400N918		NICKEL PLATED BRASS QUICK COUPLING WITH VALVE DN5(F) X G 1/8" (F)	2
060608N068		NICKEL PLATED PUSH IN BRASS FITTING MALE CONNECTOR 6mmxG1/8"BSPP 68F	2
060400N908		NICKEL PLATED BRASS QUICK COUPLING DN5(F)X1/4"BSP(M)	2
060404C122		S.S 316 HEX NIPPLE 1/4NPT(M) x 1/4NPT(M) - 122B	2
060404C116		S.S 316 STREET ELBOW 1/4NPT(M) x 1/4NPT(F) - 116B	2
070400P010		LLDPE John Guest tube, 6mm, BLACK – 10 Meter	10m

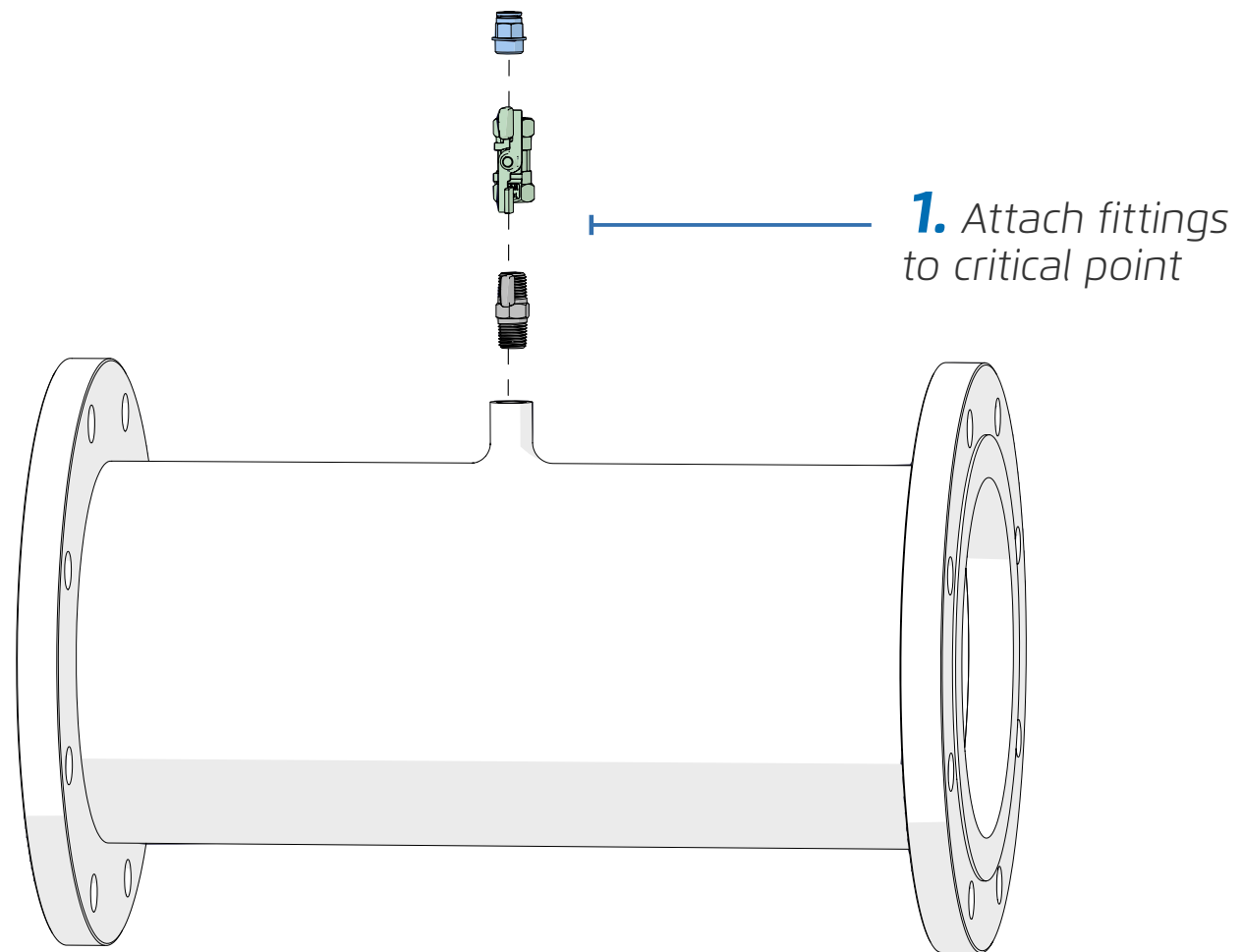
3. INSTALLATION

This chapter reviews EPSILON data logger installation and includes:

- [Adding Fittings to Critical Point](#)
- [Mounting EPSILON Data Logger to Wall](#)
- [Connecting to Upstream Outlet](#)
- [Connecting to Downstream Outlet](#)
- [Connecting to Water Meter](#)
- [Cables Index](#)
- [Verifying BERMAD Cloud Connection](#)

Adding Fittings to Critical Point

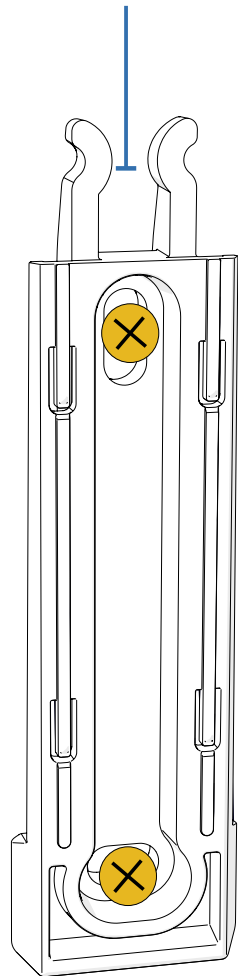
Perform the following steps to install fittings to the critical point:



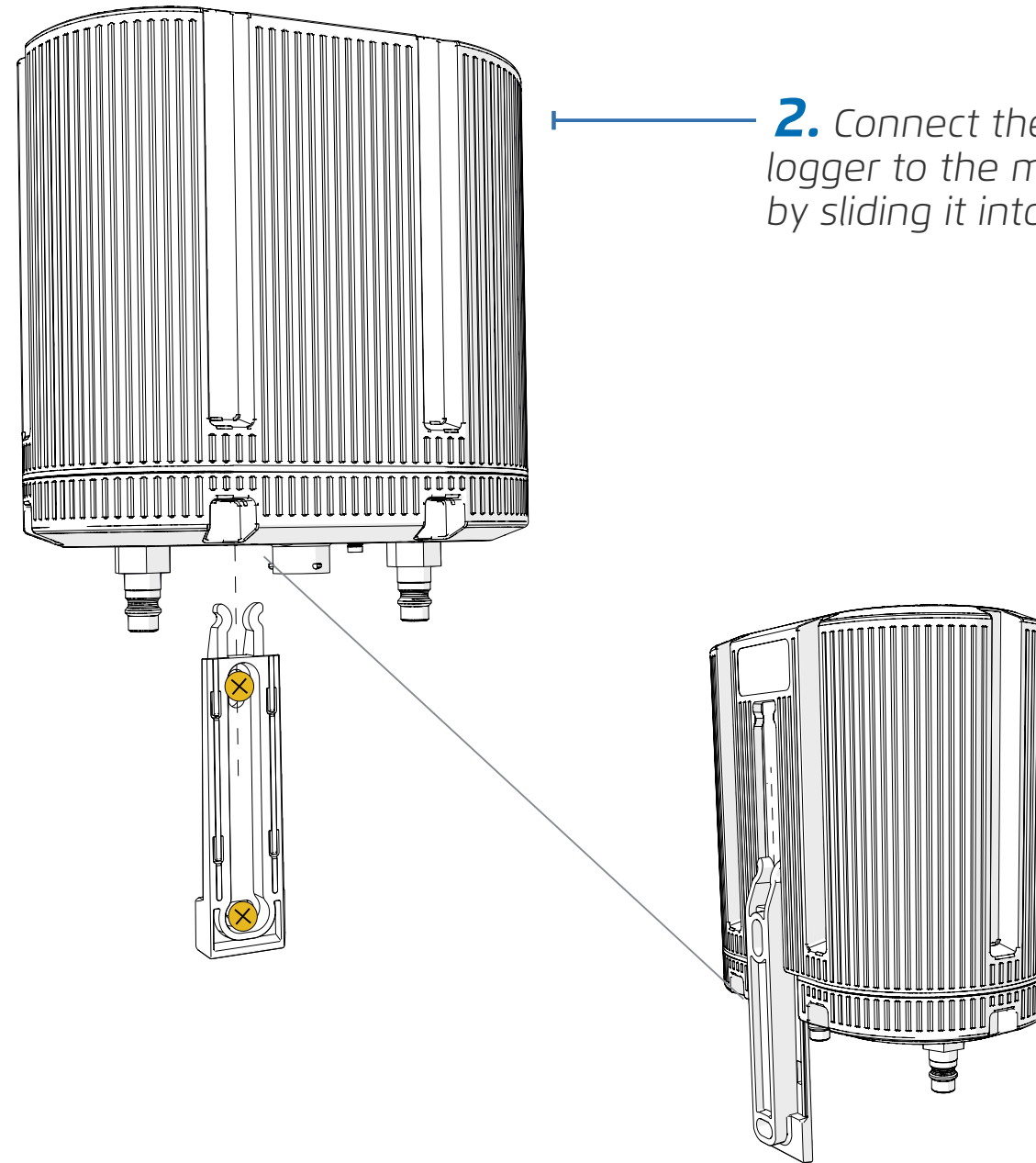
Mounting EPSILON Data Logger to Wall

Perform the following steps to mount the EPSILON data logger to a wall:

1. Attach the mounting bracket to the wall using two screws



2. Connect the EPSILON data logger to the mounting bracket by sliding it into the groove

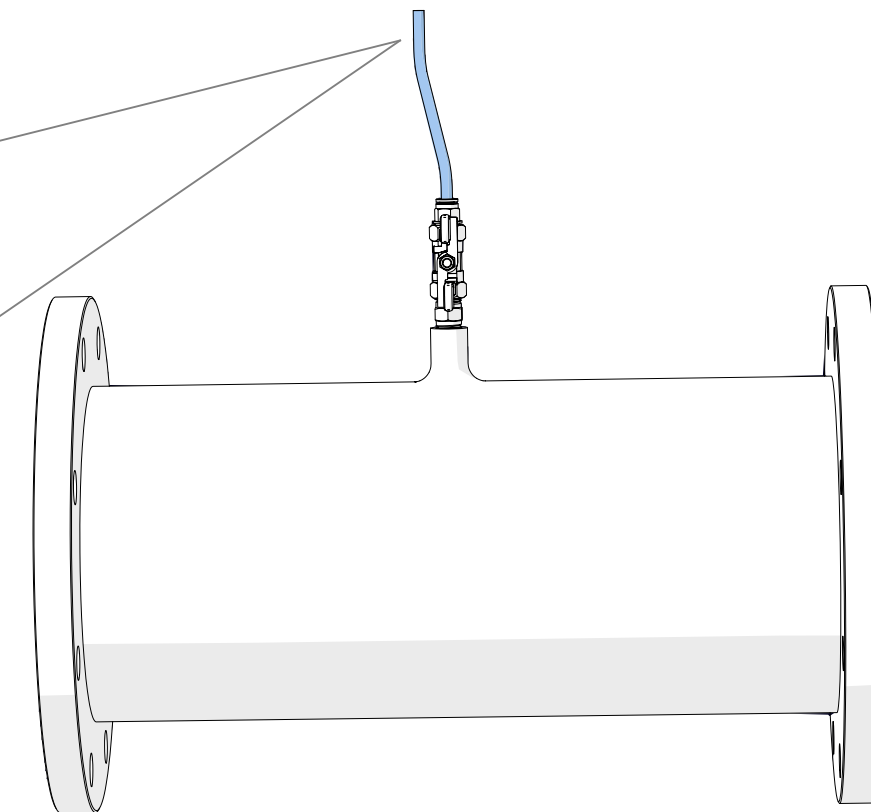
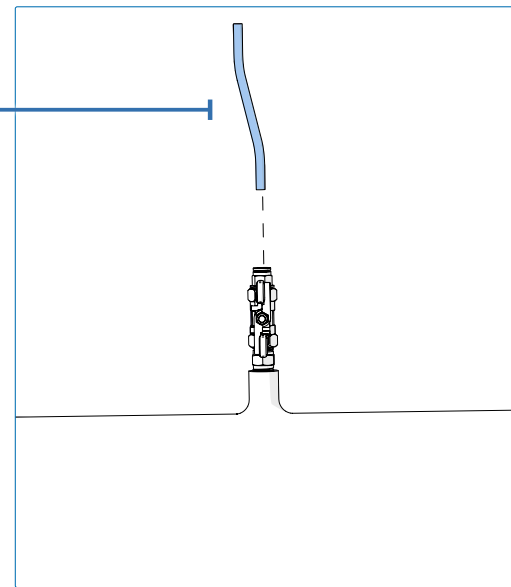
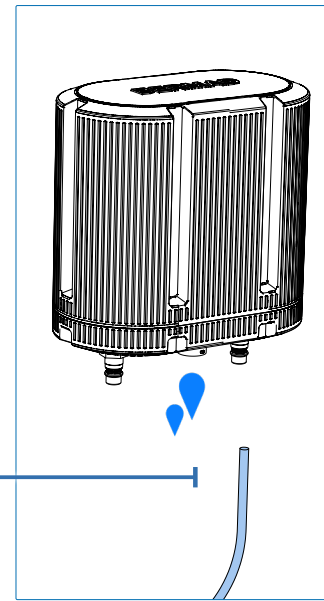


Connecting to Upstream Outlet

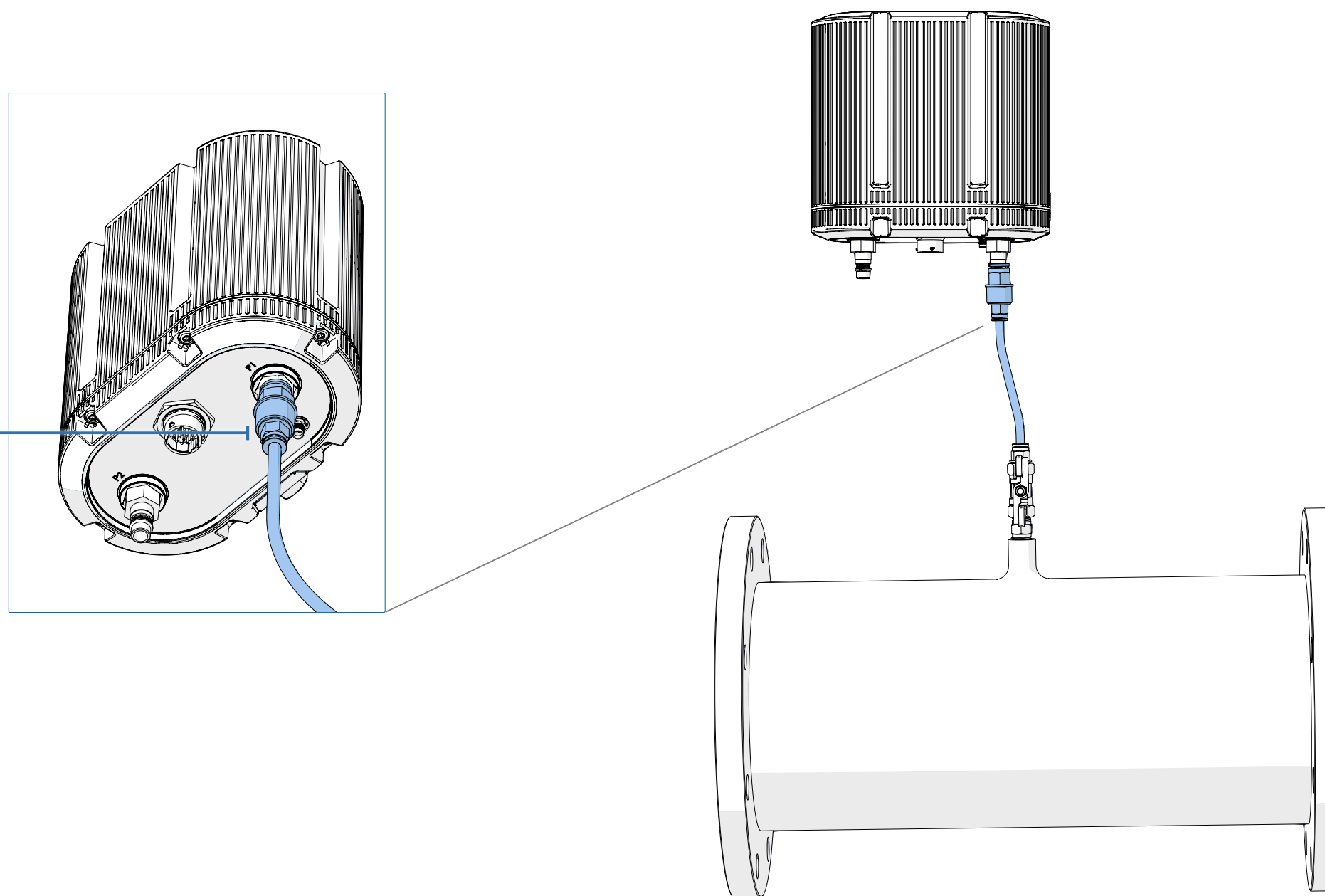
Perform the following steps to connect the EPSILON data logger to the upstream outlet:

1. Insert the P1 tube into the pipe fitting

2. Open the cock valve and allow a slight flow of water to bleed the air from the tube



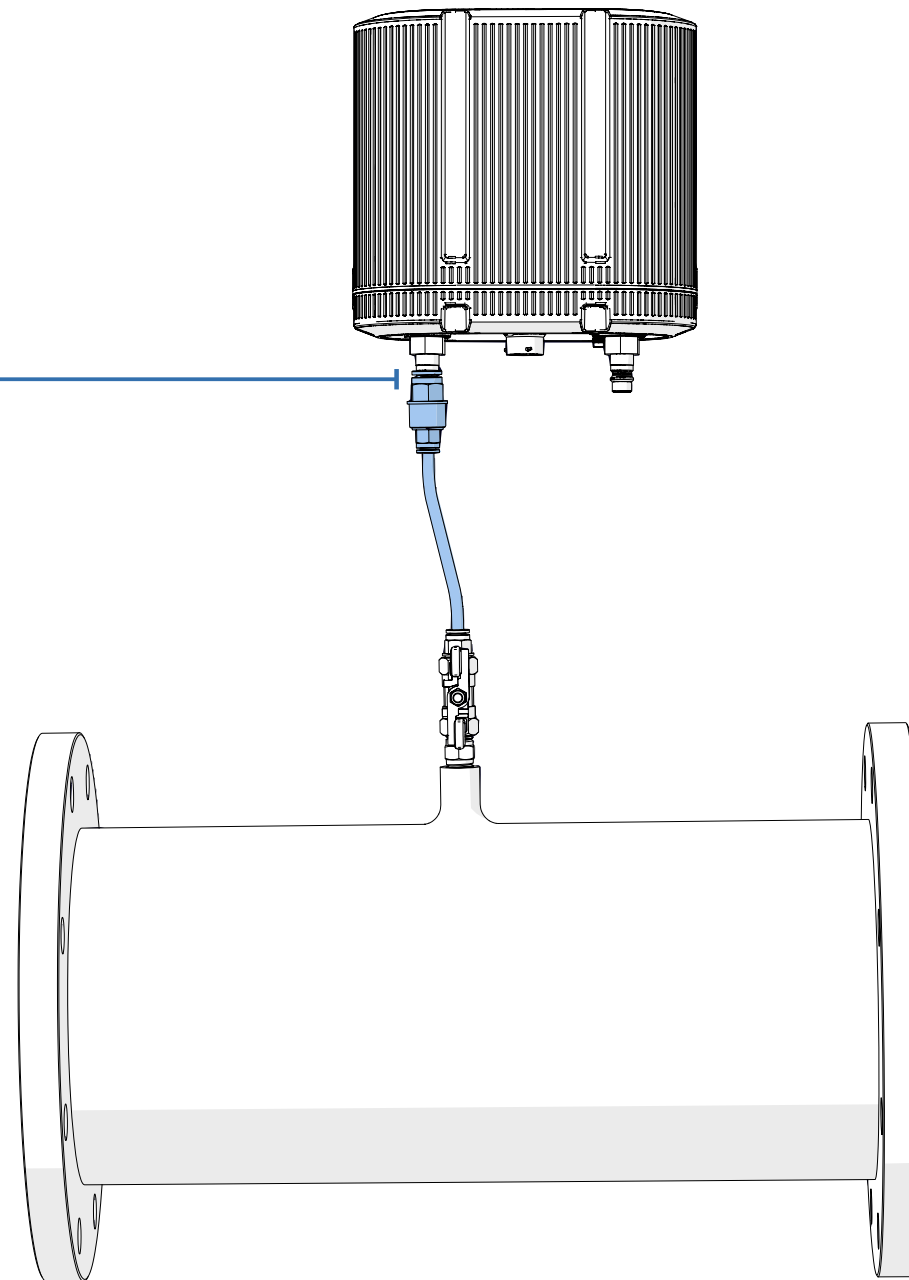
3. Insert the other end of the pressure tube into the P1 red ring port on the data logger



Connecting to Downstream Outlet

The procedure for connecting to the downstream outlet is the same as the upstream outlet, see [Connecting to Upstream Outlet](#).

1. To connect the downstream outlet, insert the pressure tube into the **P2 blue ring port** on the data logger.

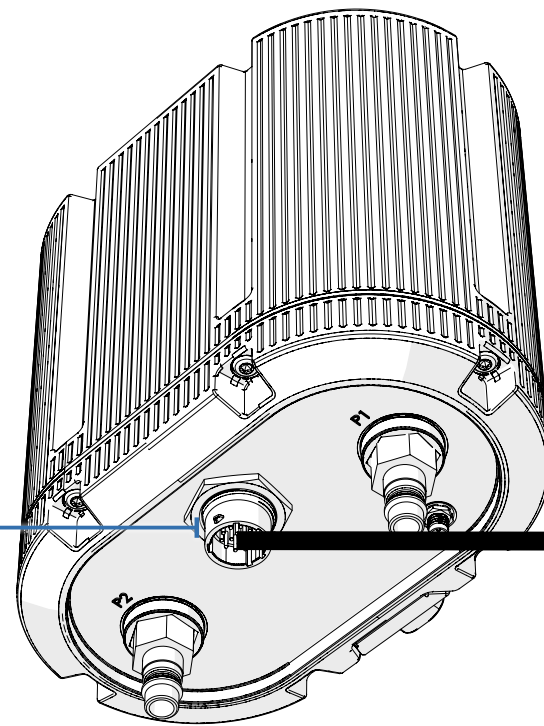


NOTE: This is an optional procedure.

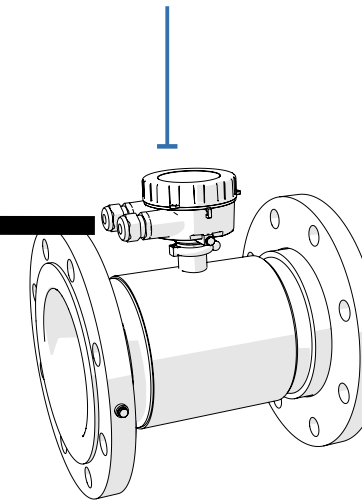
Connecting to Water Meter

Perform the following steps to connect the EPSILON data logger to the water meter:

1. Connect the cable to the I/O port on the EPSILON data logger. Connect the water meter to Digital Input #1 with K and P cables. See [Cables Index](#)



2. Connect the other end of the cable to the water meter

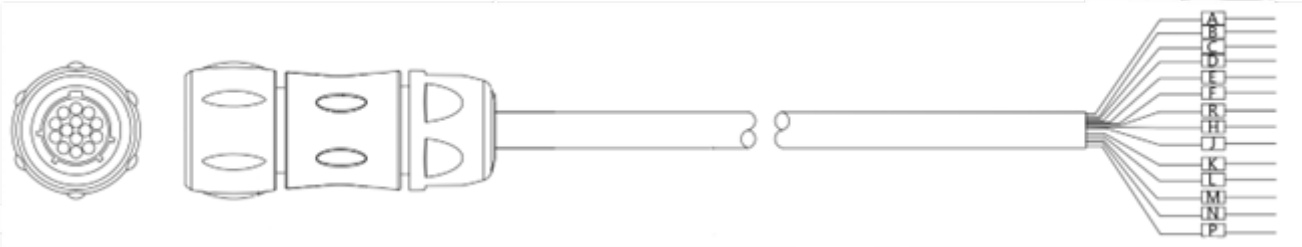


NOTE: This is an optional procedure.

Cables Index

This section reviews the various cables.

BDE0000010 - DELTA & EPSILON 14 Wire Cable with SOURIAU Connector UTS6JC12E14S L=2.5M for External Latch, Digital & Analog Inputs		
Label	Function	Color
A	Power -	Black
B	Power +	Red
C	RS485	Orange
D	RS485	Green
E	Digital Out 1	Blue (Unavailable)
F	Digital Out COM 1	Gray (Unavailable)
R	Digital Out 2	White (Unavailable)
H	Digital Out COM 2	Brown (Unavailable)
J	Digital Input COM 3-4	Purple
K	Digital Input COM 1-2	Light Purple
L	Digital Input 4	Navy Blue
M	Digital Input 3	Light Green
N	Digital Input 2	Yellow
P	Digital Input 1	Pink



Verifying BERMAD Cloud Connection

Perform the following steps to verify that the EPSILON data logger connects to the BERMAD cloud:

1. Using the Blueart, take the Epsilon out of Storage mode using this command:
'DISABLE_STORAGE_MODE'
* Contact Bermad contact person if any assistance is needed

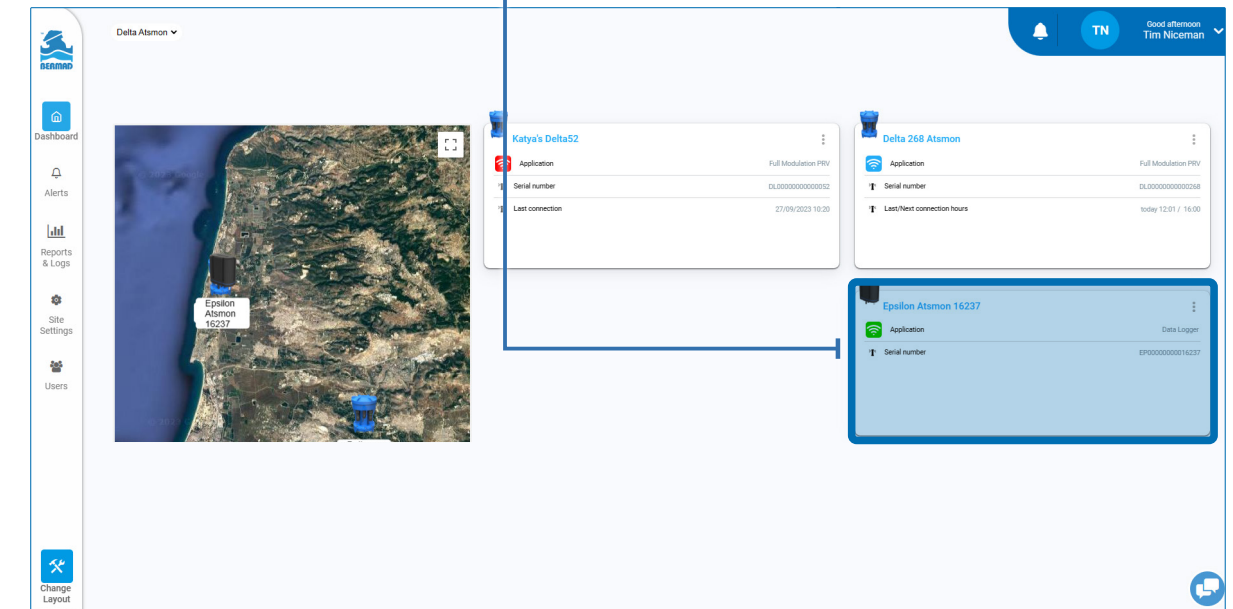


2. Register, log in and connect to BERMAD cloud with a remote computer.
See [Getting Started](#)

3. The EPSILON data logger is connected to the cloud



4. The EPSILON data logger is displayed on the Site Dashboard screen



Tip: It is recommended to perform this process at the office before installation at site.

4. CONFIGURATION

This chapter reviews configuring the EPSILON data logger using BERMAD Cloud and includes:

- [Getting Started](#)
- [Managing Sites and Devices](#)
- [Data Logger Settings](#)
- [Defining User Alerts](#)

Getting Started

This section reviews setup and calibration and includes:

- [Registering](#)
- [Logging In](#)
- [Site Dashboard Overview](#)
- [Data Logger Display](#)
- [Main Toolbar](#)
- [Changing Layout](#)

Registering

Perform the following steps to register as a new user:



NOTE: The registration process can also be completed in the BERMAD Cloud application.

1. Type **cloud.bermad.io** in the Internet browser address bar. The BERMAD Cloud login window is displayed

BERMAD Cloud

E-mail

Password

show password

Login

new user - click here to sign up

2. Click **sign up**. The registration window opens

3. Type first name, last name, and e-mail address

4. Type a password, then type it again to confirm

5. Select the relevant options

6. Click **Sign Up**

←

First Name

Last Name

E-mail

Password

Confirm password

Timezone

Asia/Jerusalem

week's first day:

Sunday

Language

English

system units

Metric

Flow unit

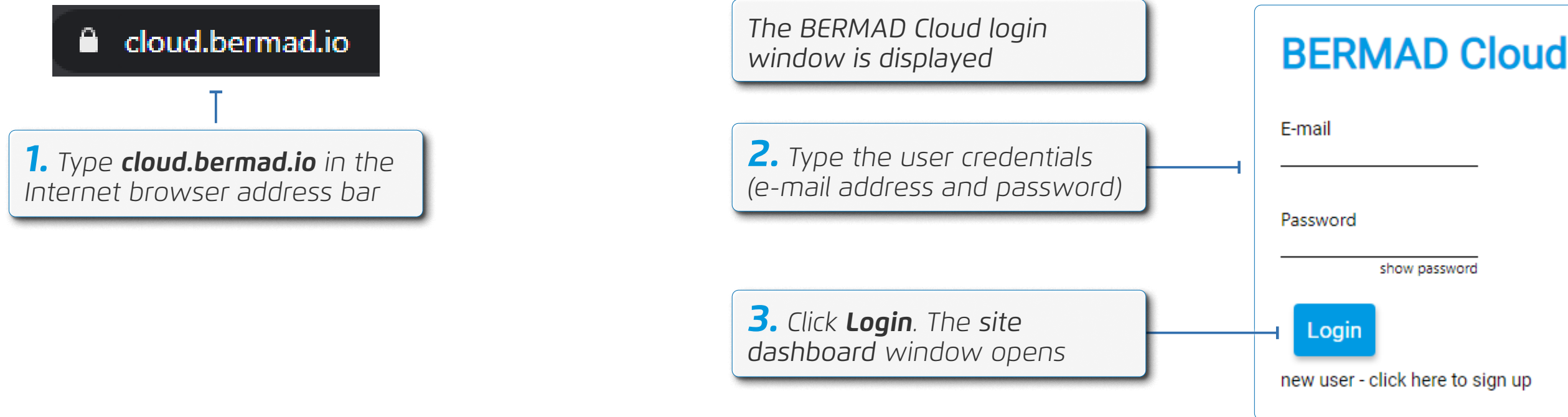
Cubic Meter Per Hour (m³/h)

By clicking Sign Up, you agree to our [Terms](#) and Cookies Policy

Sign Up

Logging In

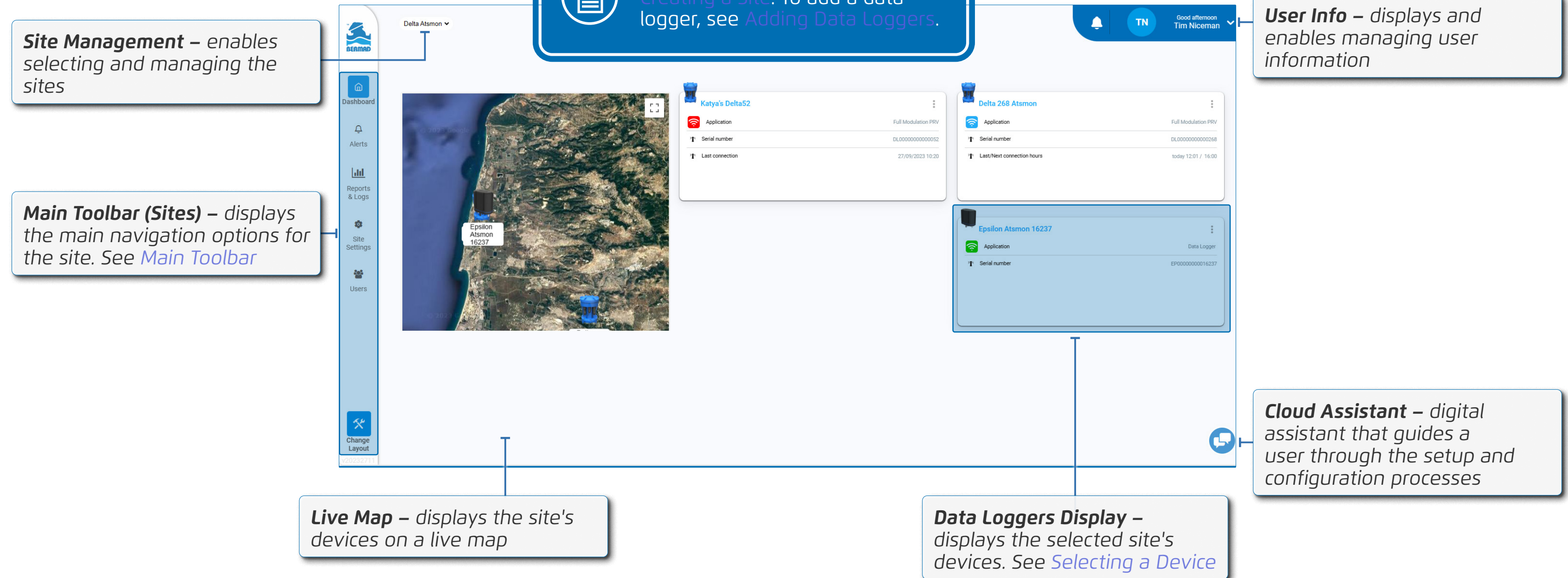
Perform the following steps to log in to BERMAD Cloud:



NOTE: A user must first register before being able to log in. See [Registering](#).

Site Dashboard Overview

The site dashboard opens, displaying the following:

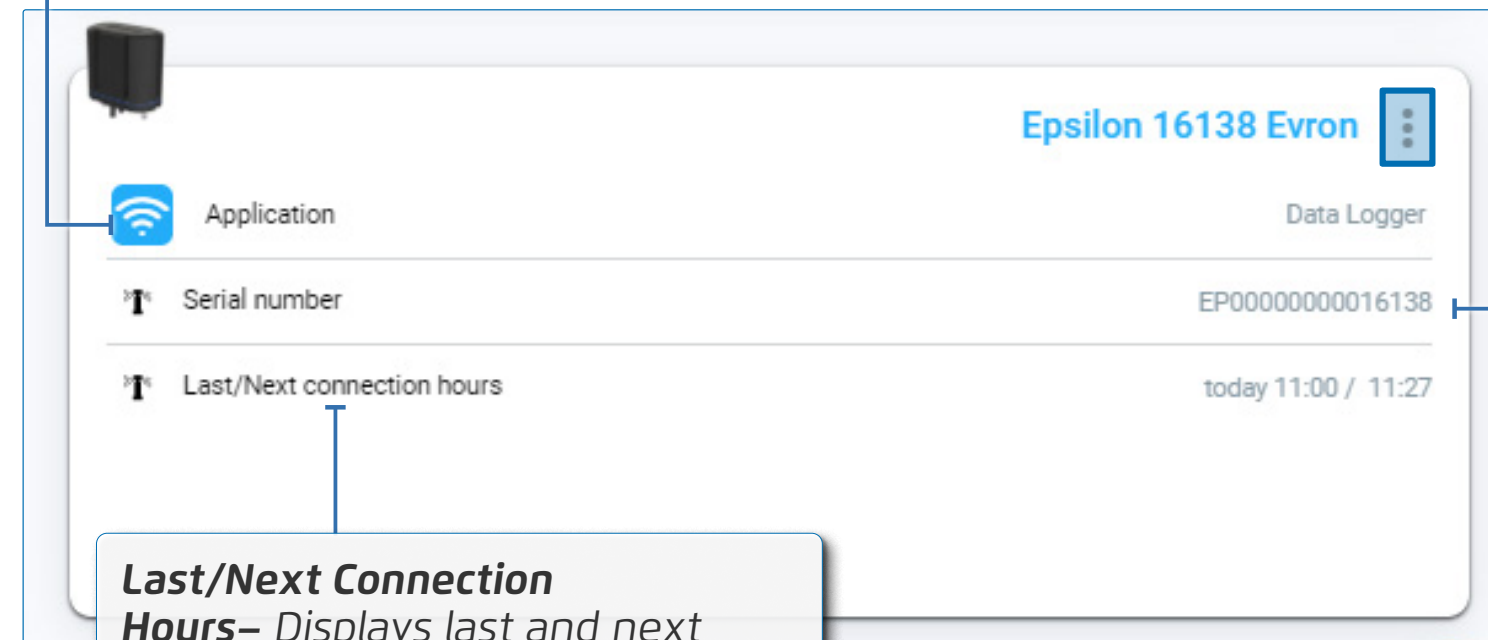


Data Logger Display

The data logger displays the following:

Status Icon– icon with the communication status:

- Green - Online mode (successfully connected)
- Blue - Successfully connected in the last 24 hrs
- Red - Failed to connect in the last 24 hrs



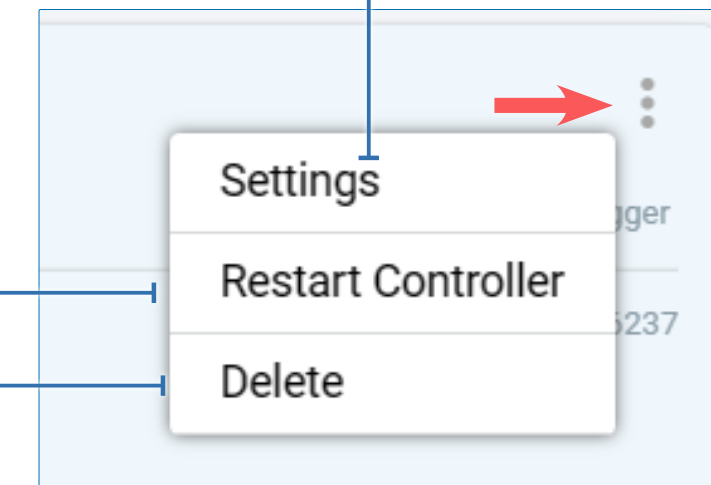
Last/Next Connection Hours– Displays last and next communication of the data logger

Serial Number– Displays the serial number of the data logger

Restart Data Logger – Enables restarting the data logger

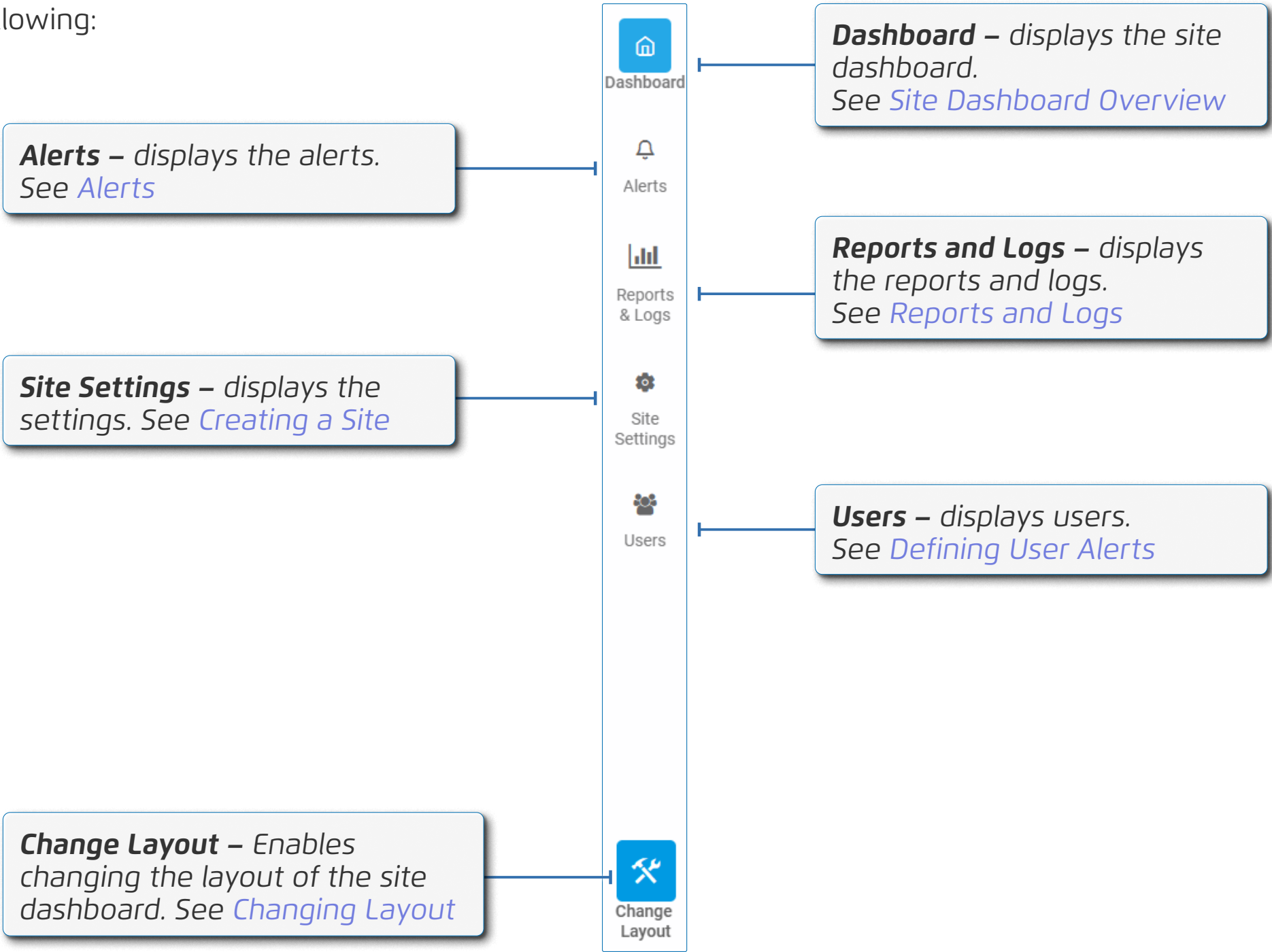
Delete– Enables deleting the data logger

Settings– In the menu bar, click the three dots and then click Settings to go to the data loggers settings



Main Toolbar

The main toolbar displays the following:



Changing Layout

Perform the following steps to change the layout of the site dashboard:

1. Click **Change Layout** on the main tool bar

2. Click **Cancel** to cancel any changes

3. Click **Add** to add a new window display to the dashboard

4. Click **Save**

3. Click the **X** icon to remove a window display from the dashboard

Managing Sites and Devices

This section reviews managing sites and includes:

- [Creating a Site](#)
- [Editing a Site](#)
- [Adding Data Loggers](#)
- [Selecting a Device](#)
- [Device Dashboard Overview](#)
- [Data Loggers Main Toolbar](#)

Creating a Site

Perform the following steps to create a site:

1. Verify that **Dashboard** is selected

2. Open Cloud Assistant

3. Click **Add New Site**

4. Cloud Assistant guides the user through the process of adding the new site

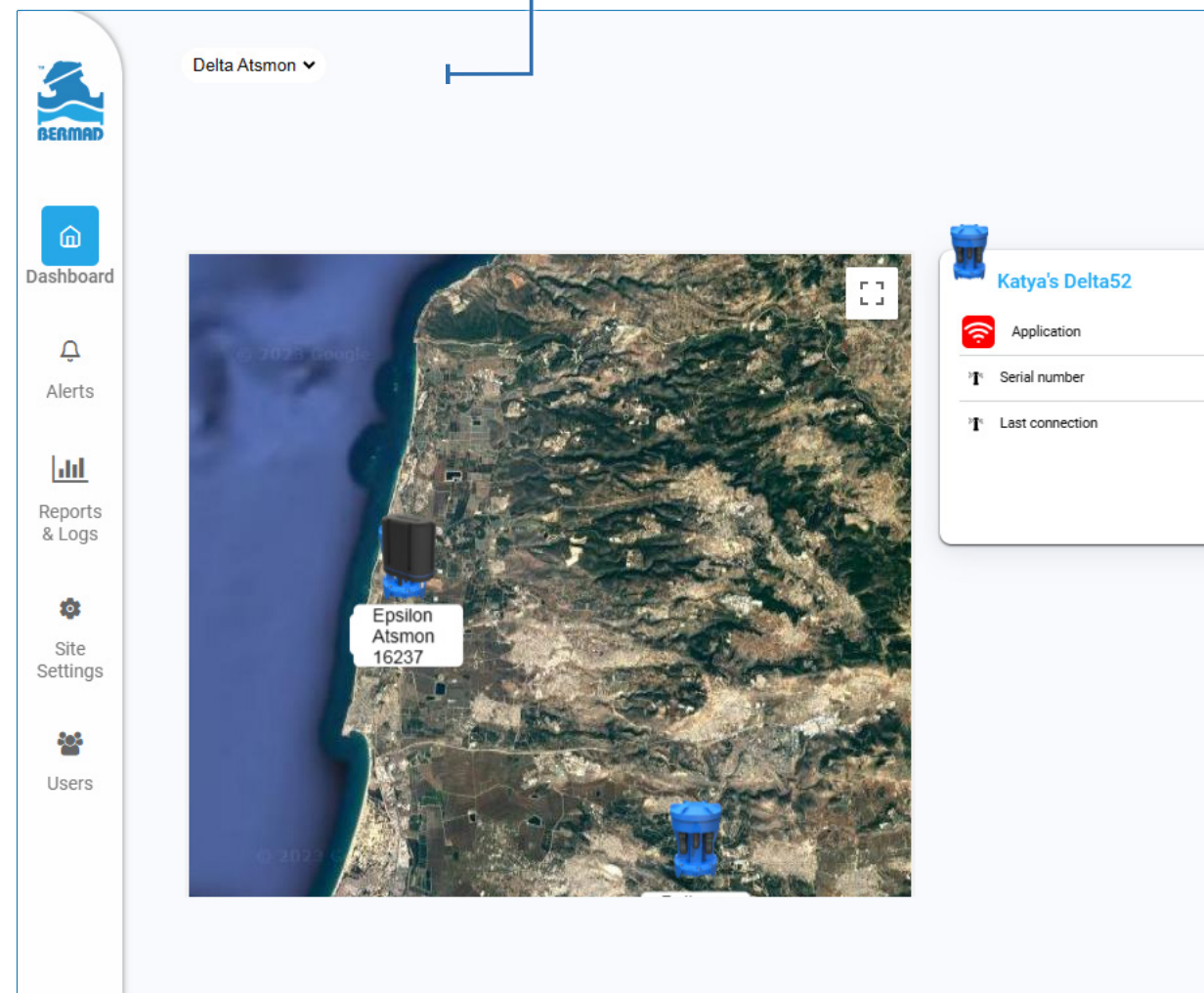
5. Type answers to the questions

6. At the end of the new site definition process the new site is added to the dropdown menu

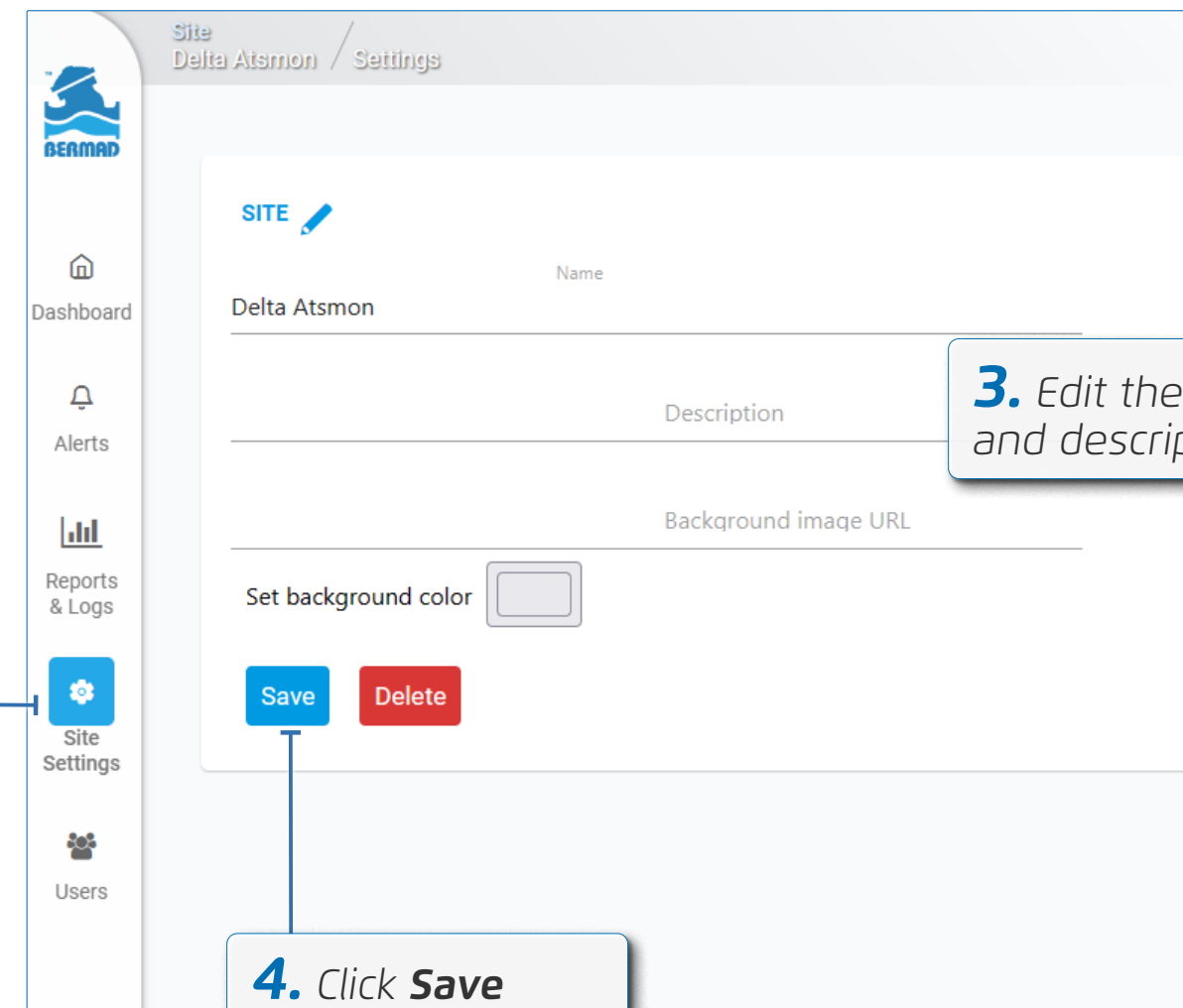
Editing a Site

Perform the following steps to edit an existing site's name and description:

1. Click the drop down menu and select the site to be edited



2. Click the **Site Settings** icon



3. Edit the site's name and description

4. Click **Save**

Adding Data Loggers

Perform the following steps to add a new data logger to the selected site:

1. Verify the relevant site is selected

2. Verify that **Dashboard** is selected

3. Open Cloud Assistant

4. Click **Add New Data Logger**

5. Cloud Assistant guides the user through the process of adding the new device

6. Type answers to the questions

7. At the end of the new device definition process the new device is added to the display

Selecting a Device

Perform the following steps to view information about a specific device:

1. Verify that **Dashboard** is selected

The screenshot displays the BEAMAD dashboard interface. On the left is a vertical sidebar with icons for Dashboard, Alerts, Reports & Logs, Site Settings, Users, and a Change Layout button at the bottom. The main area is titled 'Delta Atsmon' and features a satellite map of a coastal region. A device icon on the map is labeled 'Epsilon Atsmon 16237'. To the right of the map is a 'Katya's Delta52' device dashboard. This dashboard lists the following information:

Katya's Delta52	
Application	Full Modulation PRV
Serial number	DL000000000000052
Last connection	27/09/2023 10:20

2. Click on the relevant device from the device dashboard or from the live map

3. The device dashboard is displayed (see [Device Dashboard Overview](#))

Device Dashboard Overview

When selecting a device the following information is displayed:



NOTE: The units of measurement displayed are based on the user selection after signing in. The units can be changed in the account settings.

Selected device identification

Option to view data in a chart or table format

Device Main Toolbar - displays the navigation options for the device see [Data Loggers Main Toolbar](#)

Enables defining the chart time scale

Dragging the line displays results in a defined time frame

Moving the brackets displays results in a defined time frame

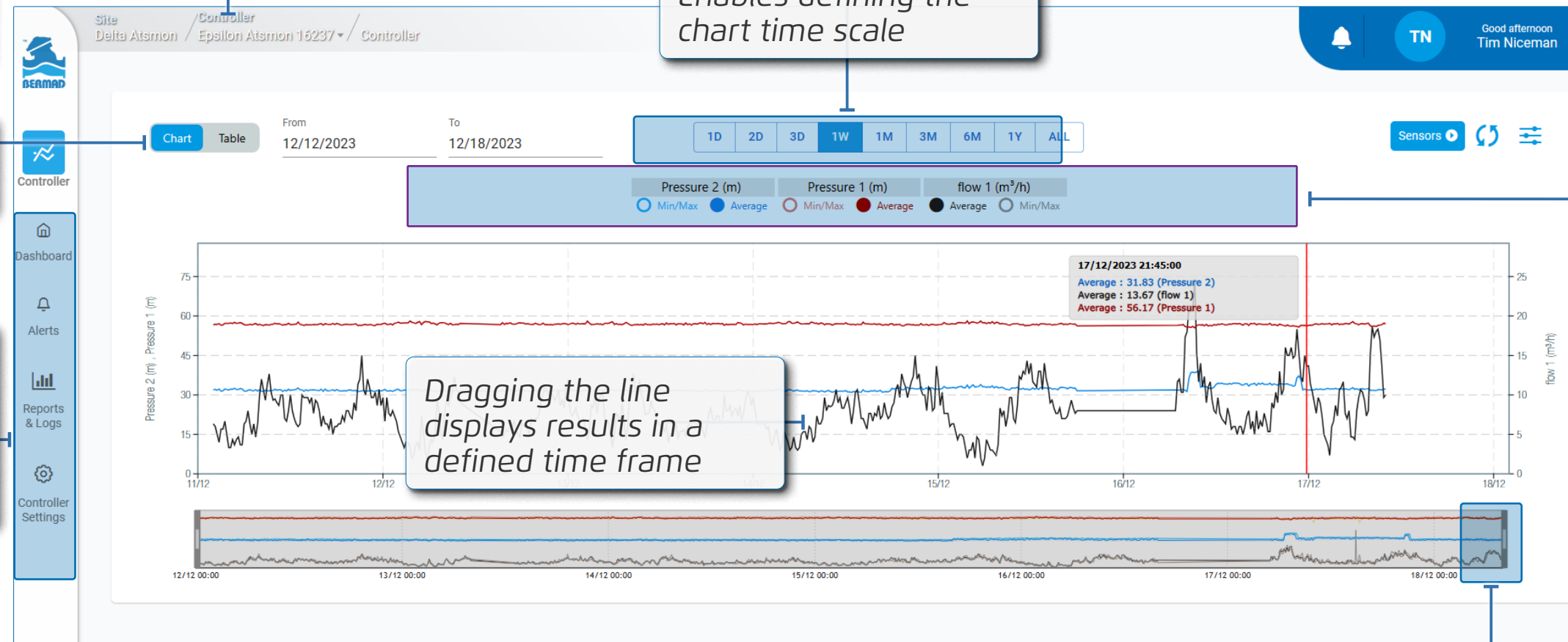


Chart Displays:

- P1 Upstream pressure
- P2 Downstream pressure
- Water Flow rate
- ● ● Displays the curve
- ○ ○ Does not display the curve

Table Display

Selected device identification

Option to view data in a chart or table format

Device Main Toolbar - displays the navigation options for the device see [Data Loggers Main Toolbar](#)

Site
Delta Atsmon / Controller
Epsilon Atsmon 16237 / Controller

Chart

Table

1D

2D

3D

1W

1M

3M

6M

1Y

ALL

ANALOG (97)

Last day raw data

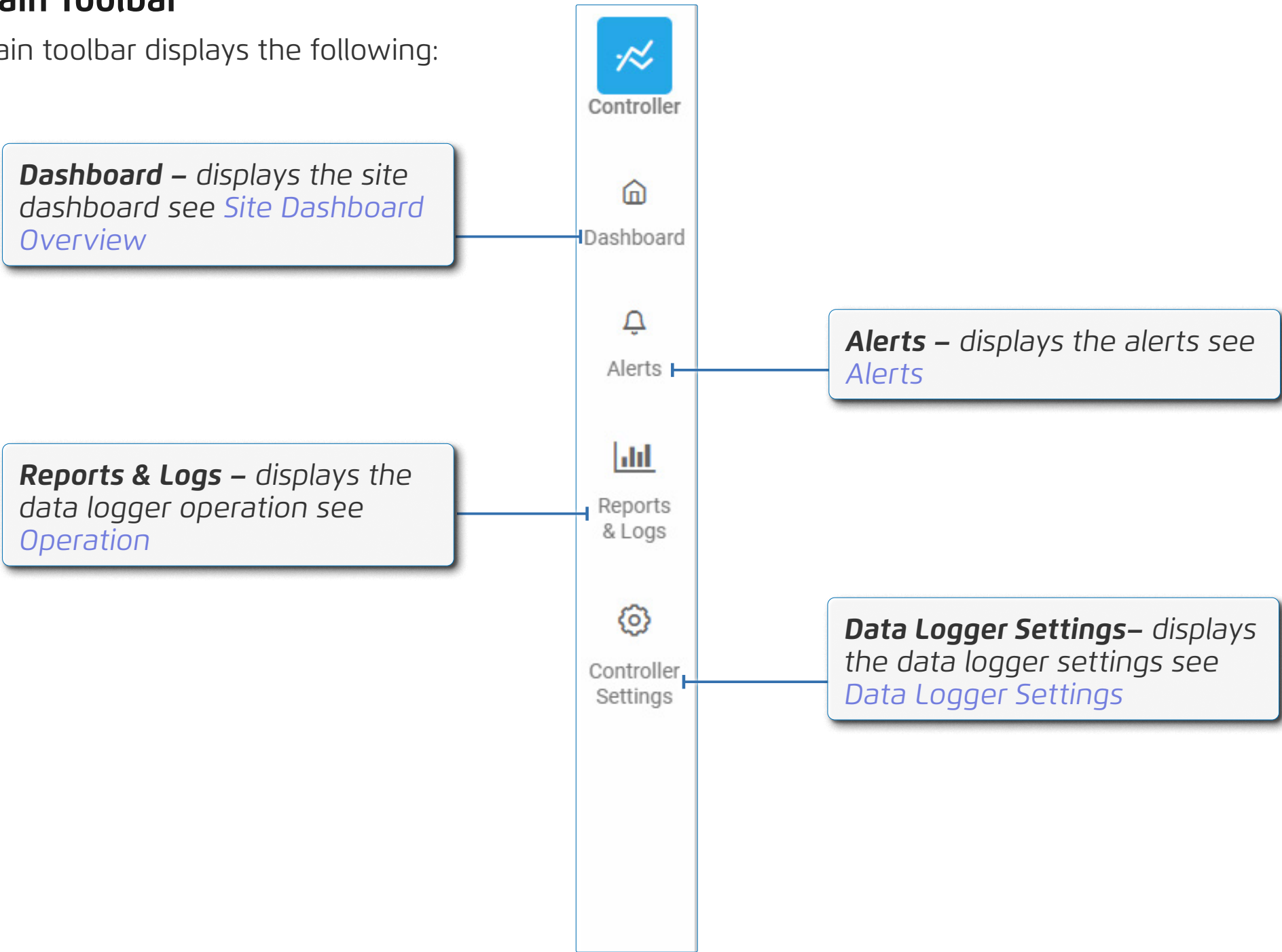
Date	Average	Pressure 1 (M)		Average	Pressure 2 (M)		Average	flow 1 (m³/h)			Totalizer
		Min	Max		Min	Max		Min	Max	Max	
18/12/2023 08:00:00	57.1	56.3	57.7	32.2	31.3	32.9	10	9	10		16367600
18/12/2023 07:55:00	57	56.3	58.2	31.9	31.2	33.2	9	9	11		16366700
18/12/2023 07:50:00	57.6	56.5	58	32.6	31.2	32.9	10	10	10		16365900
18/12/2023 07:45:00	57.1	56.1	57.7	32.1	31.2	33.1	10	10	13		16365000
18/12/2023 07:40:00	56.5	56.1	57.8	31.6	31.2	32.9	11	11	15		16364000
18/12/2023 07:35:00	57	56	57.7	32.2	31.2	32.8	15	15	15		16362900
18/12/2023 07:30:00	56.5	55.5	57.3	32	31.3	32.6	15	15	19		16361700
18/12/2023 07:25:00	56.2	55.8	57.3	32	31.2	32.8	17	17	18		16360200
18/12/2023 07:20:00	56.8	55.5	56.8	32.3	31.2	32.3	18	16	18		16358700
18/12/2023 07:15:00	56.6	55.7	57.1	31.8	31.1	32.5	16	16	18		16357300
18/12/2023 07:10:00	56.8	55.6	57.1	32	31.3	32.5	18	18	19		16355800

Log Parameters

Enables defining the chart scale
*The time scale refers to the CSV file export. In the web page the chart will display only the last day logs.

Data Loggers Main Toolbar

The data loggers main toolbar displays the following:



Data Logger Settings

This section reviews basic device settings and includes:

- [General Settings](#)
- [Mode Settings](#)
- [Flow Meter Settings](#)
- [Upstream Pressure Sensor Settings](#)
- [Downstream Pressure Sensor Settings](#)
- [Communication Settings](#)

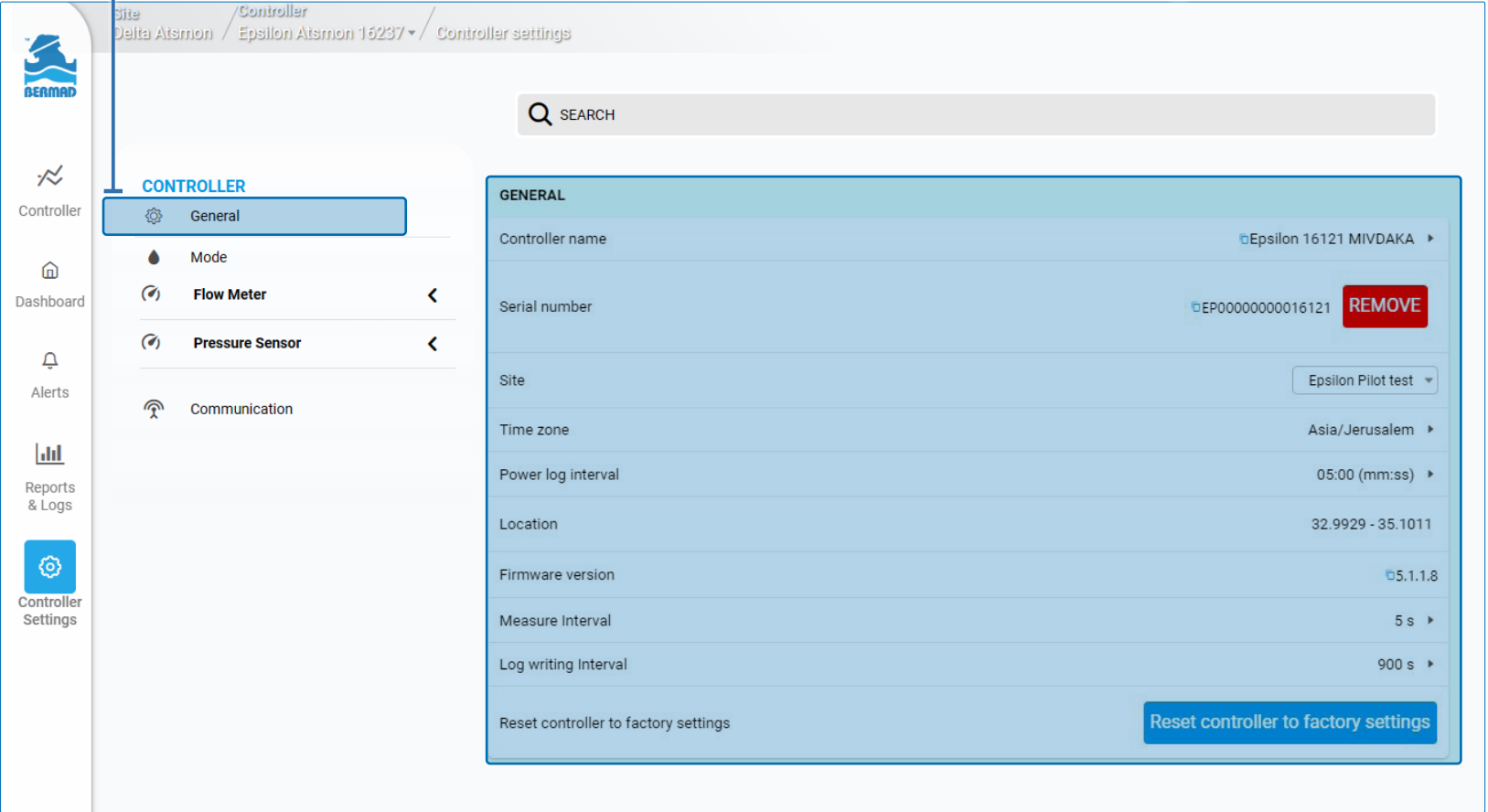
General Settings

Perform the following steps to view or edit a data logger's general settings:

1. From the data logger settings, select **General**

2. The general settings of the data logger are displayed

3. Define the following parameters



Data logger name	Enables naming of the data logger.
Serial number	Displays the serial number of the data logger.
Site	The site to which the data logger belongs. The drop-down list enables moving the data logger to another site.
Time zone	Defines the time zone in which the data logger is located.
Power log interval	Defines how often to log the power level (volt) into the data logger memory.
Location	Displays the coordinates of the data logger's location. Clicking on the line opens a map which enables moving the data logger to a new location.
Firmware version	Displays the firmware version currently installed on the data logger.
Measure interval	Defines the frequency of sensor measurements.
Log writing interval	Defines how often to log the measure into the data logger memory.
Reset to factory settings	Enables resetting the data logger to factory settings.

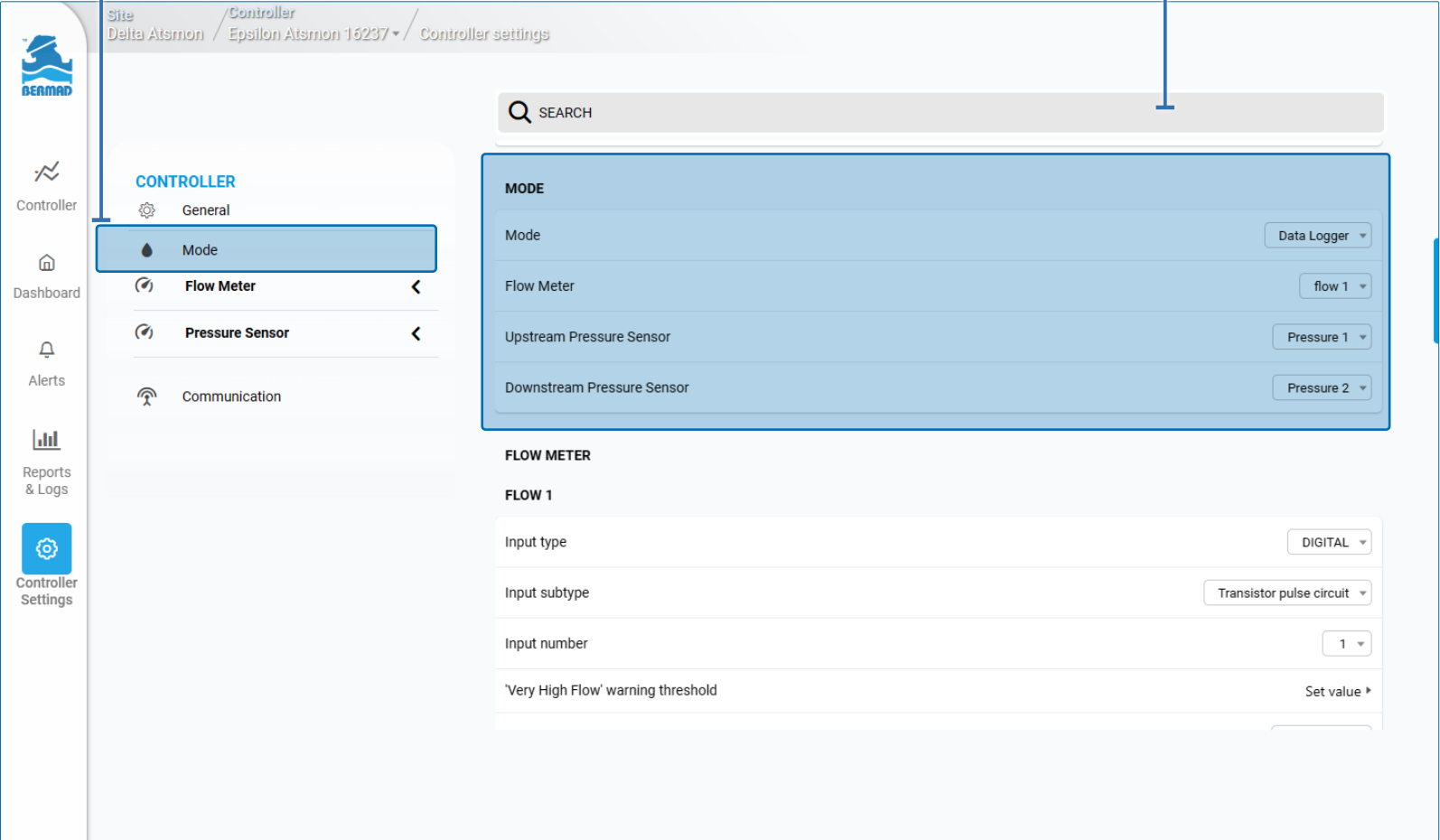
Mode Settings

Perform the following steps to navigate to the mode settings:

1. From the data logger settings, select **Mode**

2. The mode settings of the data logger are displayed

3. Define the following parameters



Mode	Verify data logger is selected.
Flow meter	Verify flow 1 is selected.
Upstream pressure sensor	Verify pressure 1 is selected.
Downstream pressure sensor	Verify pressure 2 is selected.

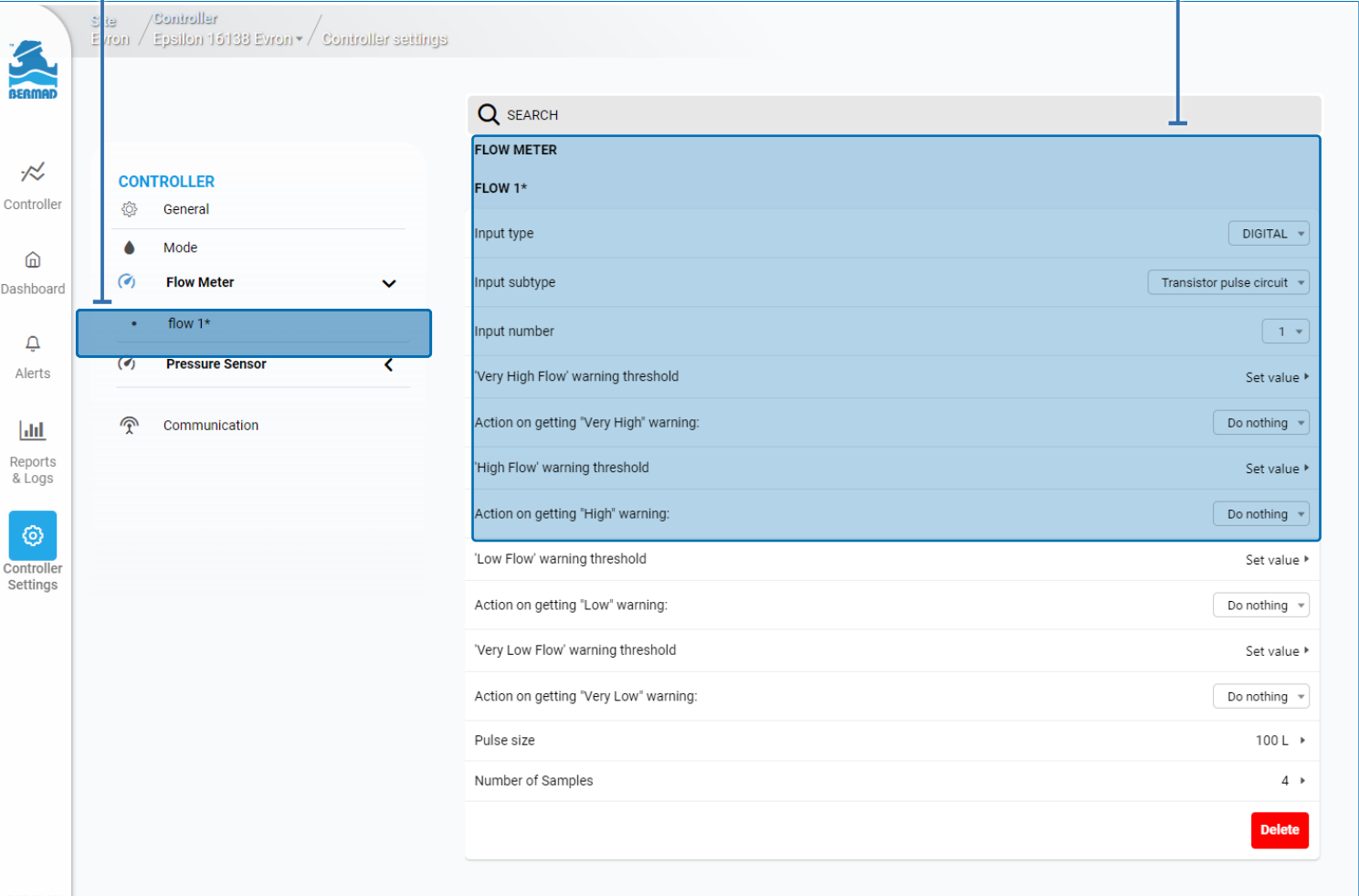
Flow Meter Settings

Perform the following steps to navigate to the flow meter settings:

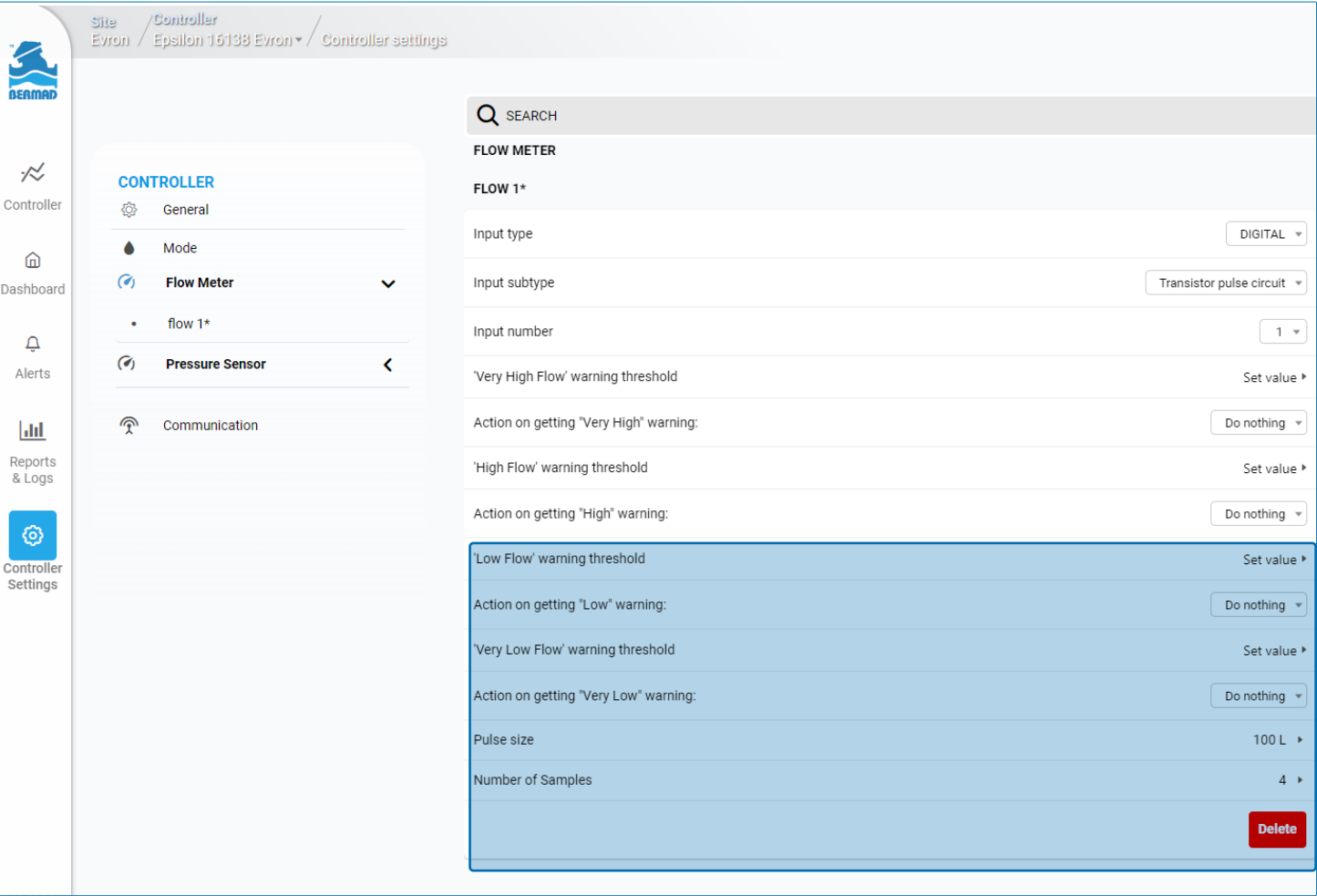
1. From the data logger settings, select **Flow 1**

2. The flow meter settings of the data logger are displayed

3. Define the following parameters



Input type	Select from the drop down list to define the type of flow meter input (analog or digital).
Input subtype	Select from the drop down list to define the subtype of flow meter input (reed switch or transistor pulse).
Input number	Select from the drop down list to define the channel to which the flow meter is connected.
Very high flow warning threshold	Enables setting an alert for when the measurement exceeds a defined value.
Action on getting 'Very High' warning	Enables selecting the alert for when the measurement exceeds a defined value.
High flow warning threshold	Enables setting an alert for when the measurement exceeds a defined value.
Action on getting 'High' warning	Enables selecting the alert for when the measurement exceeds a defined value.



3. Define the following parameters

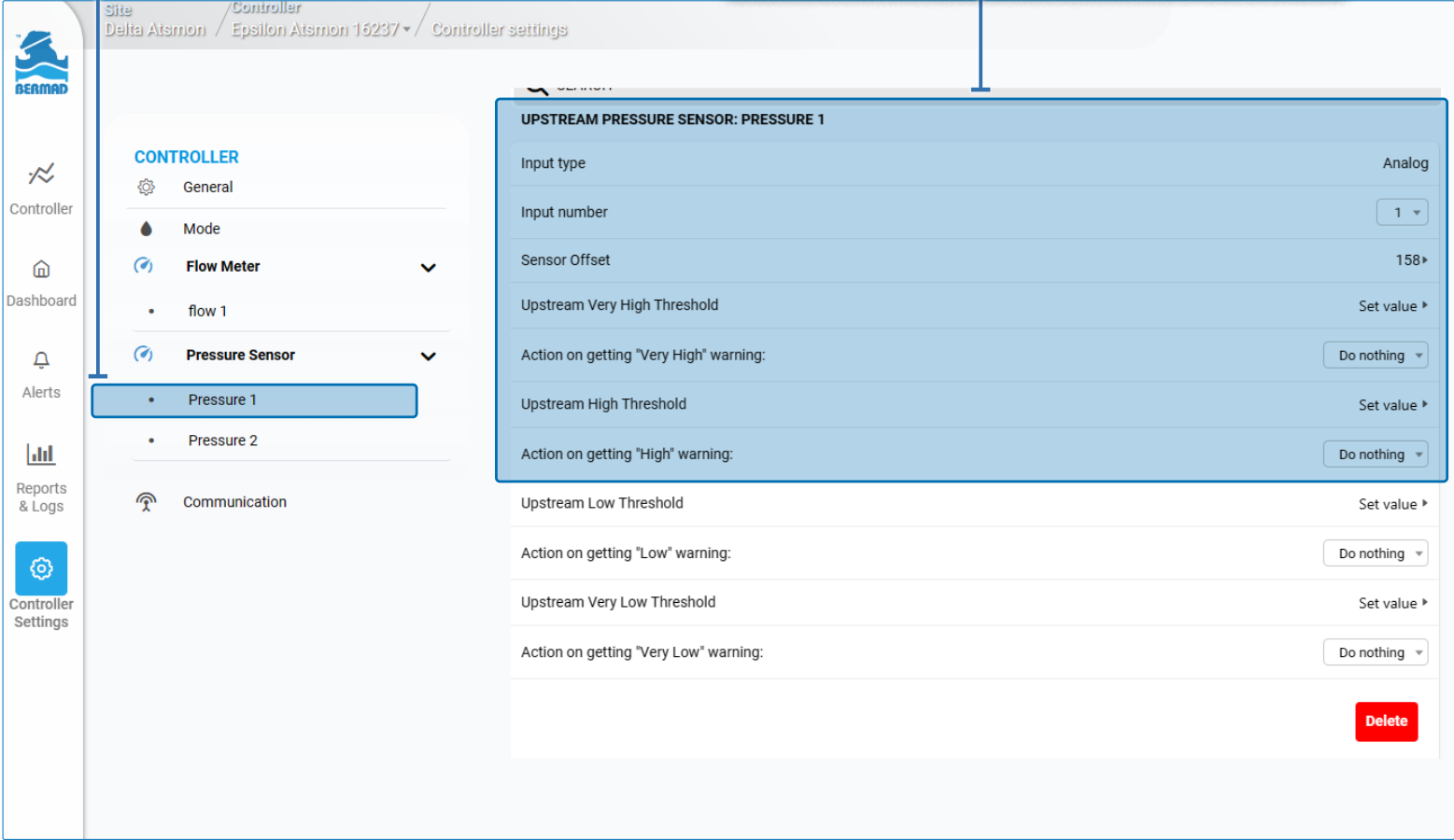
'Low Flow' warning threshold	Enables setting an alert for when the measurement drops below a defined value.
Action on getting 'Low' warning	Enables selecting the alert for when the measurement drops below a defined value.
'Very Low Flow' warning threshold	Enables setting an alert for when the measurement drops below a defined value.
Action on getting 'Very Low Flow' warning	Enables selecting the alert for when the measurement drops below a defined value.
Pulse size	Define the pulse volume. This option is relevant for digital input only.
Number of samples	Define the amount of pulses used to calculate the average flow.
Delete	Enables deleting this water flow.

Upstream Pressure Sensor Settings

Perform the following steps to navigate to the upstream pressure sensor settings:

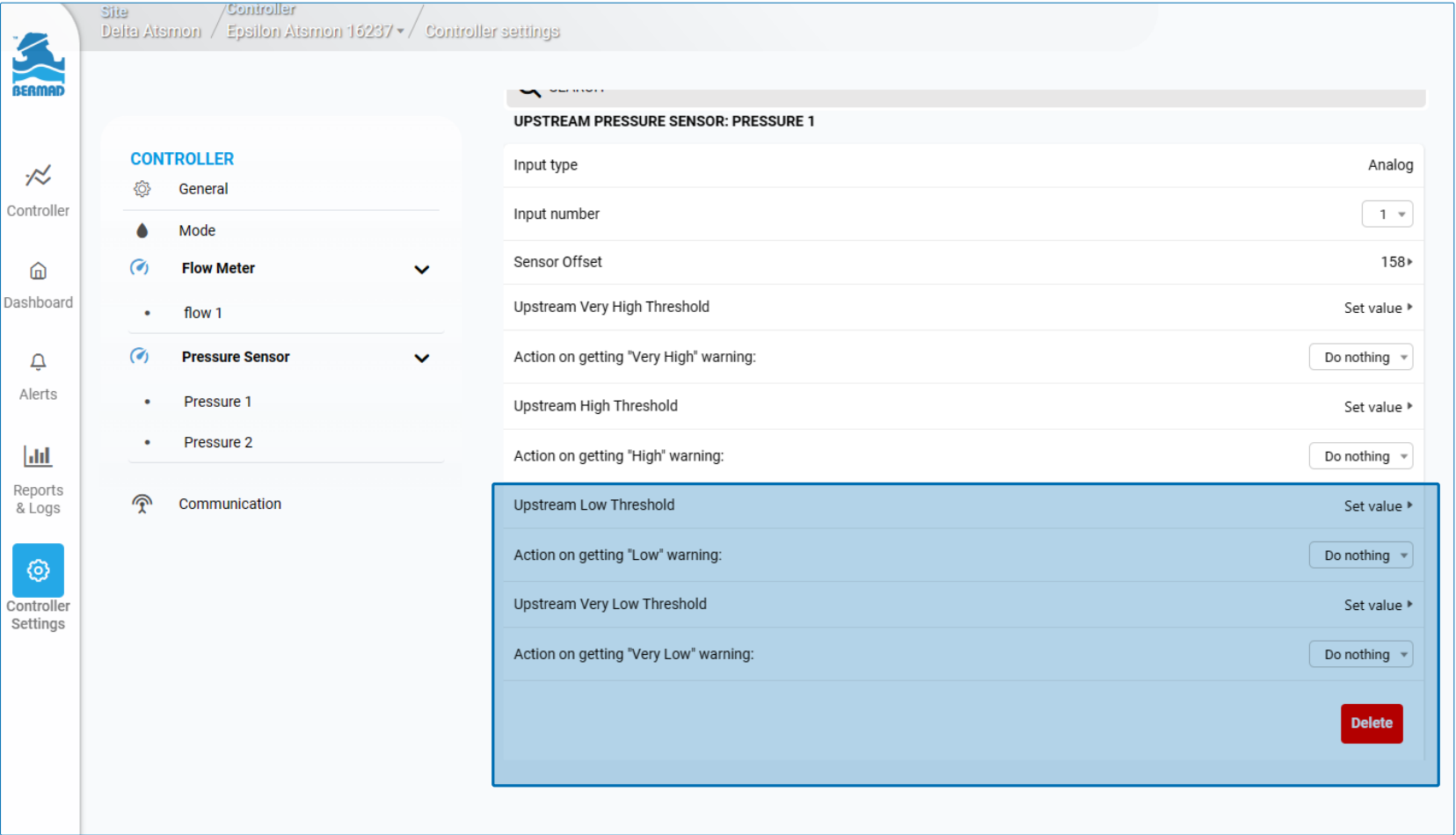
1. From the data logger settings, select **Pressure 1**

2. The upstream pressure sensor settings of the data logger are displayed



3. Define the following parameters

Input type	Select from the drop down list to define the type of upstream pressure sensor input (analog or digital).
Input number	Select from the drop down list to define the channel to which the upstream pressure sensor is connected.
Sensor offset	Enables adjusting the baseline measurement.
Upstream very high threshold	Enables setting an alert for when the measurement exceeds a defined value.
Action on getting 'Very High' warning	Enables selecting the alert for when the measurement exceeds a defined value.
Upstream high threshold	Enables setting an alert for when the measurement exceeds a defined value.
Action on getting 'High' warning	Enables selecting the alert for when the measurement exceeds a defined value.



3. Define the following parameters

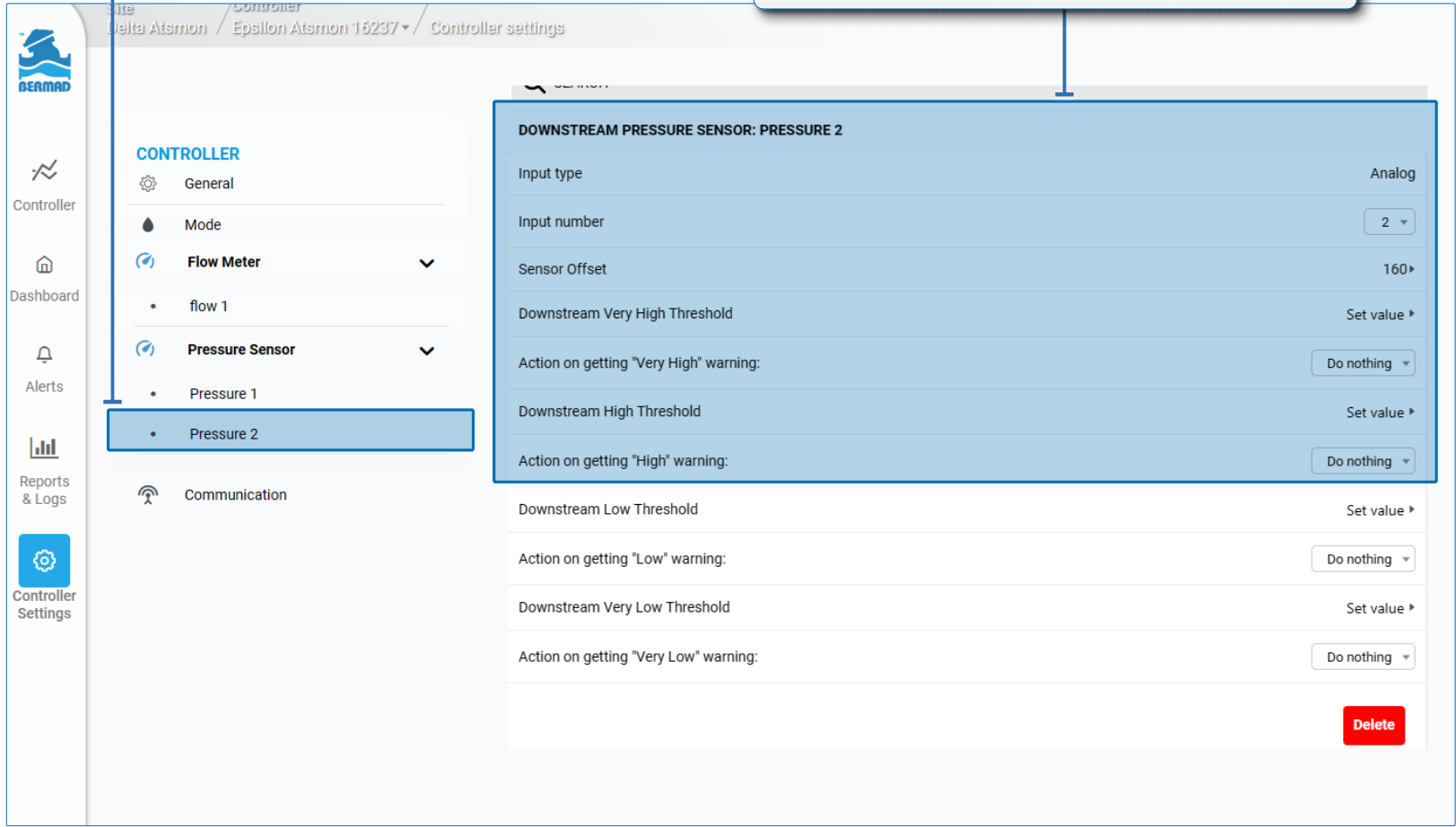
Upstream low threshold	Enables setting an alert for when the measurement drops below a defined value.
Action on getting 'Low' threshold	Enables selecting the alert for when the measurement drops below a defined value.
Upstream very low threshold	Enables setting an alert for when the measurement drops below a defined value.
Action on getting "Very Low" threshold	Enables selecting the alert for when the measurement drops below a defined value.
Delete	Enables deleting the upstream pressure sensor.

Downstream Pressure Sensor Settings

Perform the following steps to navigate to the downstream pressure sensor settings:

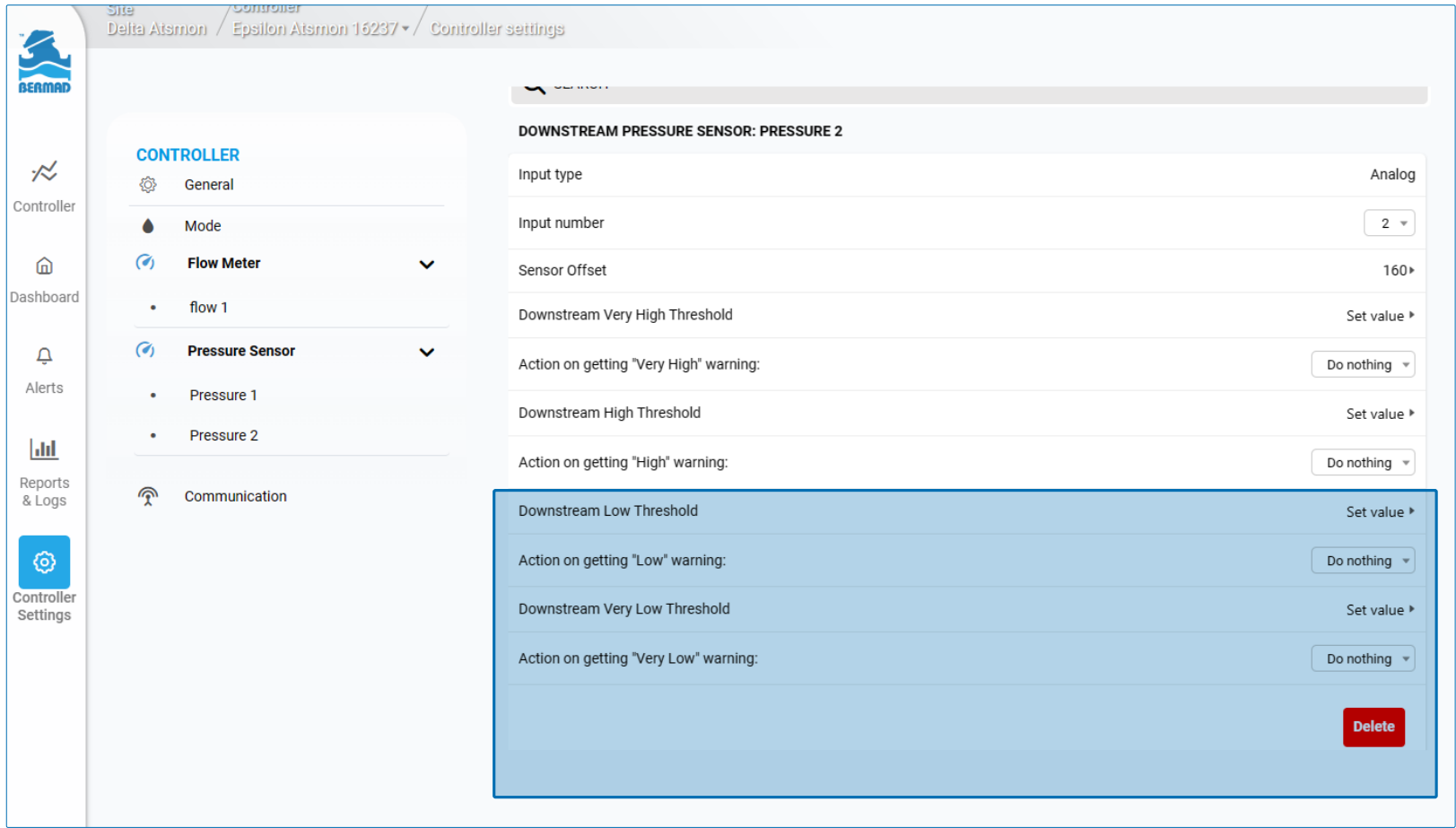
1. From the data logger settings, select **Pressure 2**

2. The downstream pressure sensor settings of the data logger are displayed



3. Define the following parameters

Input type	Select from the drop down list to define the type of downstream pressure sensor input (analog or digital).
Input number	Select from the drop down list to define the channel to which the downstream pressure sensor is connected.
Sensor offset	Enables adjusting the baseline measurement.
Downstream very high threshold	Enables setting an alert for when the measurement exceeds a defined value.
Action on getting 'Very High' warning	Enables selecting the alert for when the measurement exceeds a defined value.
Downstream high threshold	Enables setting an alert for when the measurement exceeds a defined value.
Action on getting 'High' warning	Enables selecting the alert for when the measurement exceeds a defined value.



3. Define the following parameters

Downstream low threshold	Enables setting an alert for when the measurement drops below a defined value.
Action on getting 'Low' threshold	Enables selecting the alert for when the measurement drops below a defined value.
Downstream very low threshold	Enables setting an alert for when the measurement drops below a defined value.
Action on getting "Very Low" threshold	Enables selecting the alert for when the measurement drops below a defined value.
Delete	Enables deleting the downstream pressure sensor.

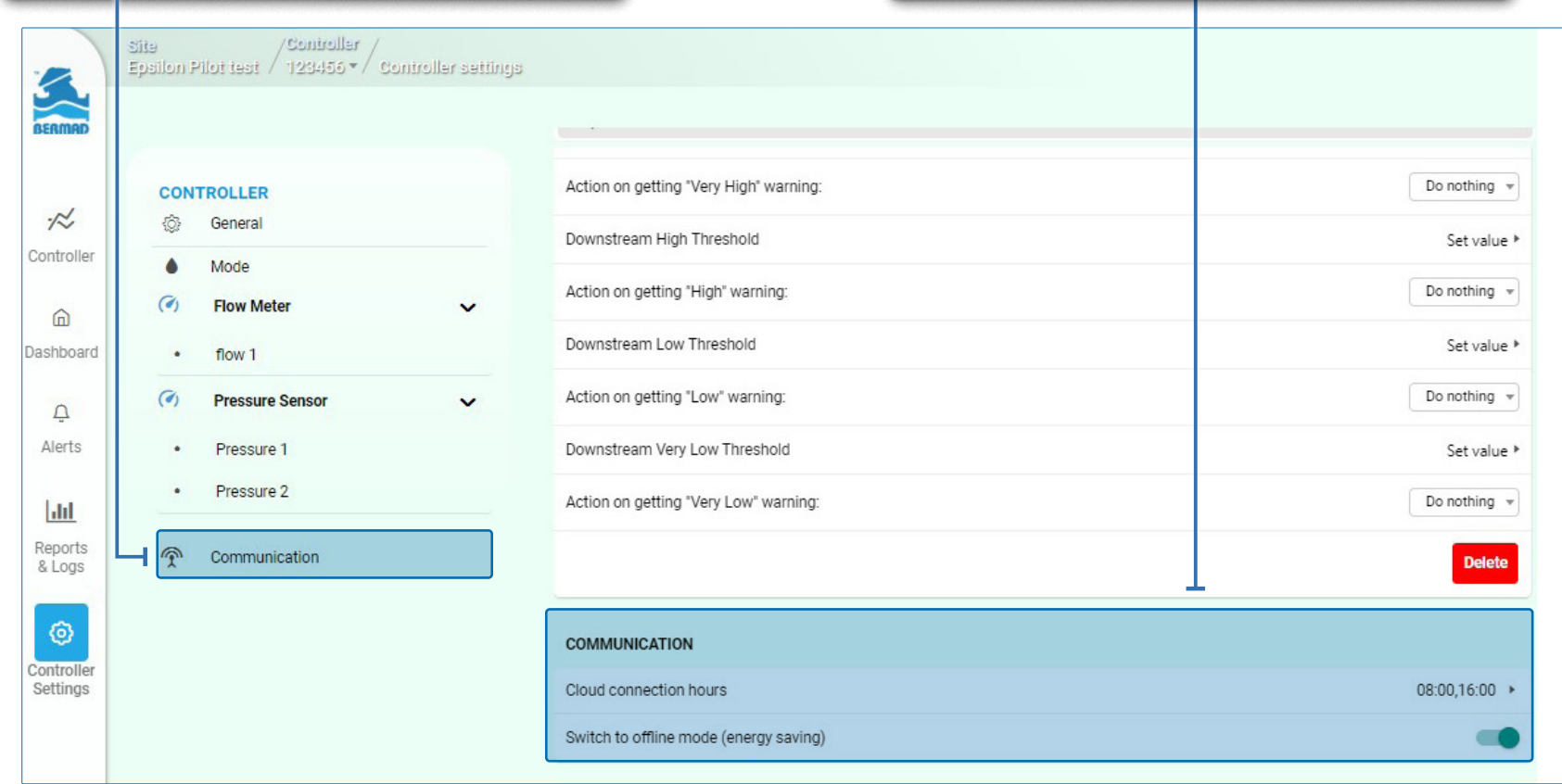
Communication Settings

Perform the following steps to navigate to the communication settings:

1. From the data logger settings, select **Communication**

2. The communication settings of the data logger are displayed

3. Define the following parameters



Cloud connection hours	Defines the hours the data logger goes online and connects to the cloud.
Switch to offline mode (energy saving)	Enables using the offline mode.

5. OPERATION

This chapter reviews operating EPSILON data logger and includes:

- [Reports and Logs](#)
- [Alerts](#)
- [Defining User Alerts](#)

Reports and Logs

To view reports and logs, perform the following steps:

1. Verify that the relevant site is selected

2. Click the **Reports & Logs** icon

Site
DELTA Evron / Controller
Epsilon Nir David 1_16248 / Reports & Logs

BEAMAD

Controller

Dashboard

Alerts

Reports & Logs

Controller Settings

SYSTEM

Date	Event
09/01/2024 07:00:25	Provider RSSI
09/01/2024 07:00:09	Modem Connect
09/01/2024 07:00:06	Modem Disconnect

DETAILS →

ENERGY

DETAILS →

3. Click **Details** to enable filtering the alerts by date

4. Click **Details** to see the power level chart in detail. Enables defining the chart time scale.

Alerts

To view alerts, perform the following steps:

1. Verify that the relevant data logger is selected

2. Click the **Alerts** icon

3. Click **filter** to enable filtering the alerts by date.

4. Click the **arrows** to enable displaying the alerts by different dates

Controller

Dashboard

Alerts

Reports & Logs

Controller Settings

Site
DELTA Evron

Controller
Epsilon Nir David 1_16243

Alerts

Filter

From
11/11/2023

To
11/15/2023

Event

Event

Arrows

Total records
250

Date		Event	Data
15/11/2023 17:23:19		battery_low	voltage: 0
15/11/2023 15:01:17		Modem Disconnect	
15/11/2023 15:00:25		Provider RSSI	cellular provider: 42503, 99
15/11/2023 15:00:09		Modem Connect	
15/11/2023 15:00:06		Modem Disconnect	
15/11/2023 07:05:28		battery_critical	voltage: 0
15/11/2023 07:05:27		battery_low	voltage: 0
15/11/2023 07:02:14		Modem Disconnect	
15/11/2023 07:00:42		Provider RSSI	cellular provider: 42503, 99
15/11/2023 07:00:09		Modem Connect	
15/11/2023 07:00:06		Modem Disconnect	
14/11/2023 15:06:04		battery_critical	voltage: 0

Defining User Alerts

To define which alerts a user receives, perform the following steps:

1. Verify that the relevant site is selected

2. Click the **Users** icon

Site
Delta Aismon / Users

BERMAD

Dashboard

Alerts

Reports & Logs

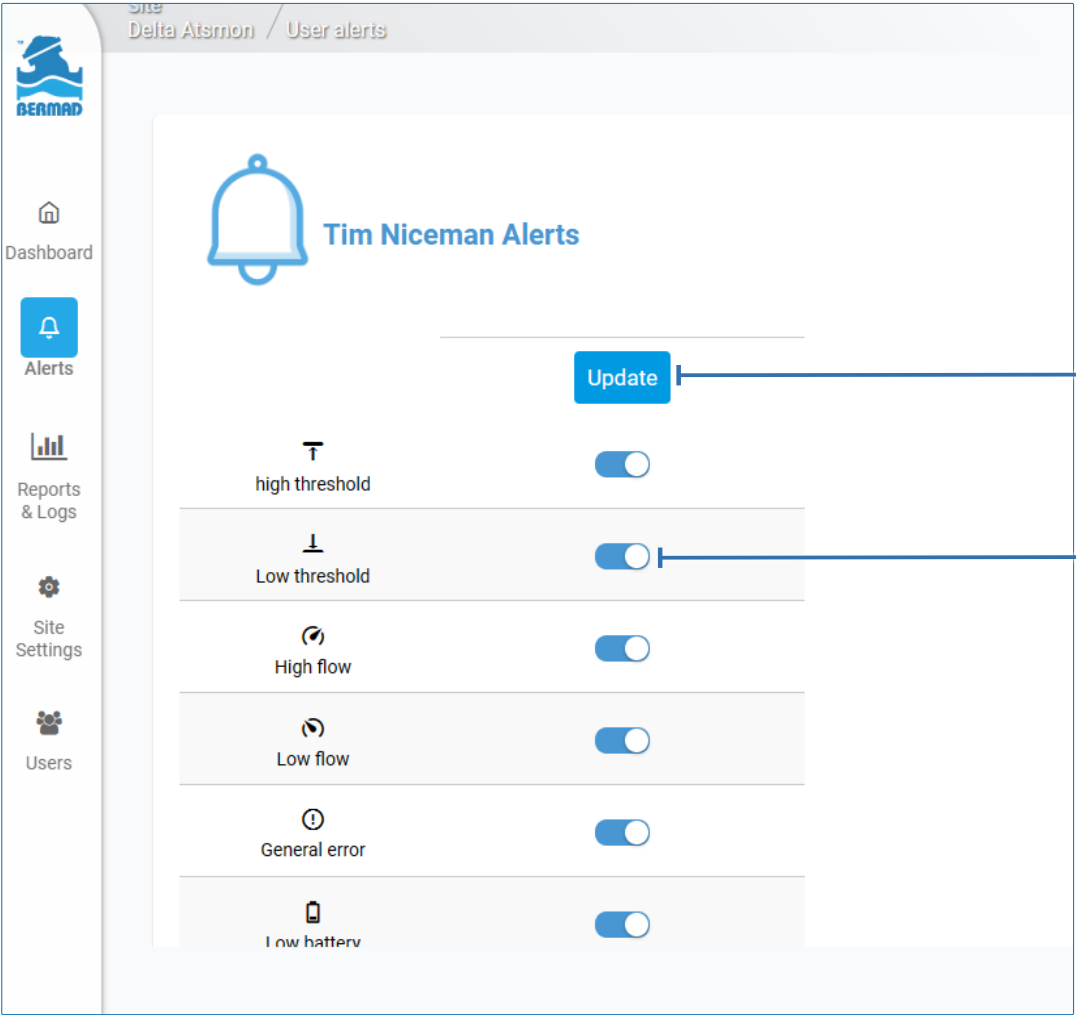
Site Settings

Users

USERS

Name	Email	Permissions Role	
Tim Niceman	tamir@galiltc.co.il	Operator	<div>Alerts</div>

3. Click the three dots and select **Alerts**



5. Click **Update**

4. Select the relevant alerts

6. SPECIFICATIONS

Main Features:

- Local Inputs:
 - Four digital inputs for metering and discrete sensors
- Sensor calibration for all physical units
- Internal
 - Two accurate internal pressure sensors +/- 0.5%

Connectivity:

- Built in 4G Modem with 2G fallback
 - Global data SIM card for worldwide plug-and-play internet connectivity
 - Supports GPRS, MODBUS (RS-485), NB-Io2 and CAT-M Communication Protocol
- Bluetooth communication for Technician Mode tasks

Operation modes:

- Online Mode: 24/7 connection between the EPSILON data logger and BERMAD cloud (requires external power source)
- Offline Mode:
 - Autonomous control operation, predefined Cloud communication and real-time alerts
 - Designed for power saving when using internal batteries

Power source:

- Lithium battery for operation in Offline Mode
- 9-16VDC External power input for Online Mode operation (solar panel, grid power, etc.)

Integral Data Logger - with more than 150K records, enables comprehensive log registry that can cover long periods of Offline operation

Periodic Firmware Over the Air Upgrades (FOTA)

Outdoor installation - IP68 rated with UV protection

Standard Compliance - CE, FCC Approved

Industrial Grade Electronic Components - -35°C to 75°C

7. WARRANTY

BERMAD Standard International Limited Warranty

Product Details: EPSILON Data Logger (the "**Product**")

BERMAD CS LTD. ("**BERMAD**") warrants that, for a period of 24 months from the retail purchase date of the original (first) purchaser (the "**Warranty Period**"), each component of the Product shall be free from defects in material or workmanship and the Product shall meet in all material respects its specification as detailed in BERMAD documentations.

General Conditions

This warranty shall be valid only if the Product is installed, handled and maintained in accordance with BERMAD's written manual provided together with the Products or publish on BERMAD website.

This Warranty does not cover defects or damages resulting from accident, inappropriate physical or operational environment, failure of electrical power, 'acts of nature' (which includes but is not limited to, hail, lightning storm, blizzard, flood and fire effects), improper installation, maintenance, service, repair, transportation, storage, modification, operation, use, damage by animals, negligence or fault by any party other than BERMAD.

This Warranty shall run solely to and in favor of the customer that purchased the defective Product directly from BERMAD (or any of its authorized dealers), and it does not extend to any other purchaser or user of the Product.

Claims, Notifications and Compensation

Every warranty claim must be notified in writing to BERMAD (or to the relevant authorized dealer from which the Product was purchased) as soon as reasonably possible after the discovery of the defective Product, enclosing the original sales receipt and this Warranty.

The claimant must allow BERMAD to inspect the Product involved and the installation site itself while the Product is still in its original position and has not been removed or altered in any way and/or return the Product to BERMAD for testing. BERMAD reserves the right to investigate independently the cause of any failure.

If a claim under this Warranty is properly notified within the Warranty Period and found to be justified by BERMAD, then BERMAD, at its sole option, shall: (i) replace such Product; or (ii) repair such Product.

In any way, BERMAD's liability shall not exceed the amounts actually paid by the customer to BERMAD (or to any of its authorized dealers) for the defective Products.

Limitations

This Warranty is the sole warranty in respect to the Products.

Under no circumstances shall BERMAD be liable for any indirect, special or consequential damages, including, without limitation, for any loss of profit, loss in connection with business interruption, loss of use, loss of revenues or damage to business or reputation.

This warranty does not cover any costs and expenses of removal and installation of the Product or shipping cost or taxes or any other direct or indirect loss(es) which may result from the Product failure and BERMAD shall not be liable for such costs and expenses.

OTHER THAN HAS BEEN SPECIFICALLY STATED IN THIS WARRANTY, ALL OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED, INCLUDING ALL IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE ARE EXCLUDED SO FAR AS THE LAW PERMITS.

EPSILON

Thank you!



Waterworks



www.bermad.com

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