

MONITORING - MANUAL

MONITORING SERVICE MANUAL

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Overview

All of Preservatech's equipment is ready to use with our monitoring service <https://rhmonitoring.com>.

Our devices can be connected to the local WiFi network and further to our internet server. Data for each machine can be checked on any WWW able device: PC computer, iPad or smartphone.

Our equipment is equipped with a built-in data logger. In case of temporary losing the WiFi connection, data will be sent to the server after connection is restored.

With the monitoring service the user can check the actual status of the machine, Humidity, Temperature, air quality and quantity of water in the machine. Additionally, all data recorded may be displayed in a graph to track any changes. If the equipment's parameters are Out of Range or there is Low Water, the user may set the monitoring service to inform them by email.

In order to see the demo machines connected to our server go to <https://rhmonitoring.com> and use user name: "demo" and password "demo11".



WiFi Antenna installation.



If the machine is located inside a metal enclosure (eg. Under the showcase in a steel enclosure) it is highly possible that the WiFi connection will be poor or non-existent. In this situation, the antenna needs to be installed outside of the metal enclosure. A Wifi antenna extension cord can be supplied by Preservatech. (Antenna is included in a standard order; extension cord is an additional option)



Setting up user account.

1. Setup machine WiFi connection. See "**Connecting device to WiFi**" below.
2. During setting up machine, make a note of hub number.
3. Send email to info@preservatech.com with:
 - a. Hub number/s
 - b. User name (temporary password will be issued)
 - c. Email where alarm messages will be sent.
4. Account will be setup within 24 hours.
5. After first login, password can be changed.

Connecting Device to WiFi

To use the rhmonitoring.com service the machine must be setup to work with the local Wi-Fi network.

Two parameters must be known before setting up: Wi-Fi SSID (name of local WIFI network) and access password for this network. Setting can be done with any Wi-Fi enabled device.

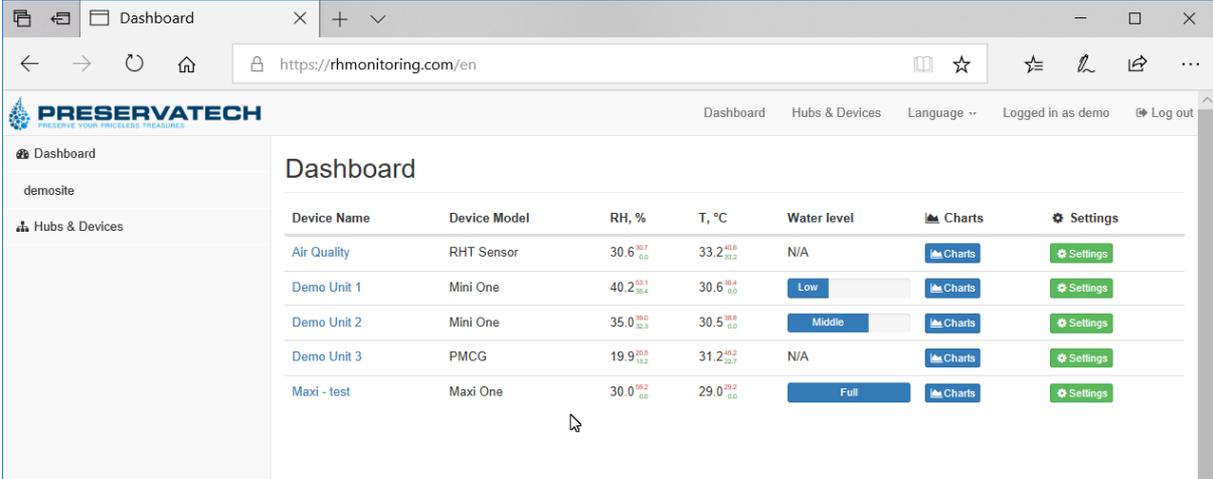
<p>Wifi config mode</p> <p>Back</p> <p>Hub_11291479 Wifi SSID: "PRESERVATECH_EUROPE" Wifi Pass: "12345678" Server 1 IP: 0.0.0.0 Server 2 Name: "pws.iq.direct" Server 3 Name: ""</p>	<ol style="list-style-type: none"> To enter Wi-Fi configuration mode, press the setting  button on the main page. Using slider, find "Wifi config mode" and push configuration button located  on the right. After entering this mode, display shows among others Hub id, WiFi SSID (network name) and WiFi Pass. For proper operation SSID and Pass must be set to access local WiFi network. Using your smartphone choose connection with Hubxxxxx . (Machine must be in Wifi config mode) Within a few seconds after login a new page with the machine data will pop up.  Enter proper SSID (Name of local WiFi network) and a password.  Save data by pressing "Save to Hub" button.  Display should show actual parameters with the new data. Shut down the machine and after 30 sec. turn it on again. On main display, in the right top corner "iwc" will appear, this means the machine is properly set. Assuming rhmonitoring.com account is ordered and setup, machine will be visible in the monitoring service.
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Using RHmonitoring service

Logging

On the login page (<https://rhmonitoring.com>) enter user name and password and click "Login". On this page language also can be chosen.

Dashboard



Device Name	Device Model	RH, %	T, °C	Water level	Charts	Settings
Air Quality	RHT Sensor	30.6 ^{30.7} _{30.0}	33.2 ^{40.0} _{33.2}	N/A	Charts	Settings
Demo Unit 1	Mini One	40.2 ^{55.1} _{38.4}	30.6 ^{38.4} _{0.0}	Low	Charts	Settings
Demo Unit 2	Mini One	35.0 ^{35.0} _{32.3}	30.5 ^{38.8} _{0.0}	Middle	Charts	Settings
Demo Unit 3	PMCG	19.9 ^{30.5} _{13.2}	31.2 ^{40.2} _{22.7}	N/A	Charts	Settings
Maxi - test	Maxi One	30.0 ^{30.2} _{0.0}	29.0 ^{20.2} _{0.0}	Full	Charts	Settings

On the Dashboard, all devices are shown in the form of table.

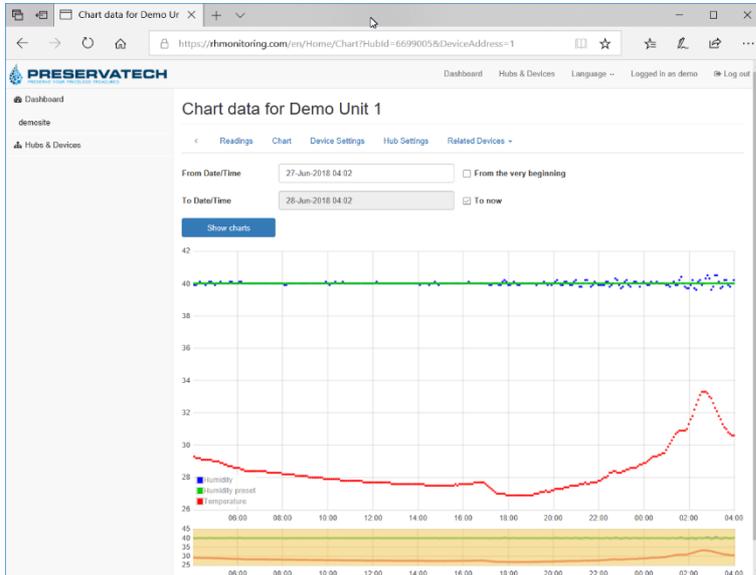
- **1st column:** Showing name of the device. This can be changed by user.
- **2nd column:** Device Model (type). This cannot be changed.
- **3rd column:** RH,% - displays the current RH value. (The small numbers on the right show the minimum and maximum values recorded)
- **4th column:** T, °C – displays the current T value. (The small numbers on the right shows max and minimum values recorded)
- **5th column:** Water level – displays the current water level in the machine. (Works only with Mini One and Maxi One machines)
- **6th column:** Charts. - By clicking this button Chart page will open.
- **7th column:** Settings – certain parameters including name of device can be set.

Menus

- **Hubs & Devices:** Page where some parameters including name of device can be changed.
- **Language:** Choice of language. English, Chinese and Russian. Other languages may be added in the future.
- **Logged in as ... :** Changing password.
- **Log out**

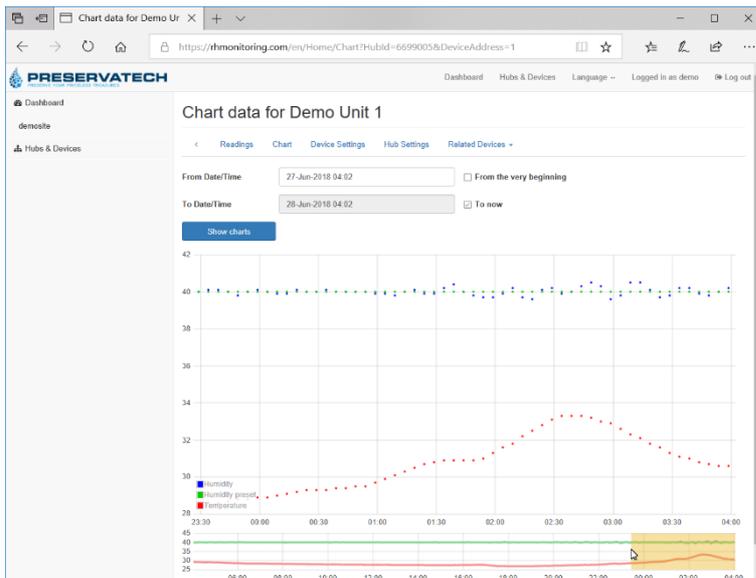
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Chart Page



As a default, the chart is shows the last 24 hour readings of RH (blue), T(red) and SET RH (green).

Time span can be changed by setting “From Date/Time” and “To Date/Time” and clicking on “Show Chart”.

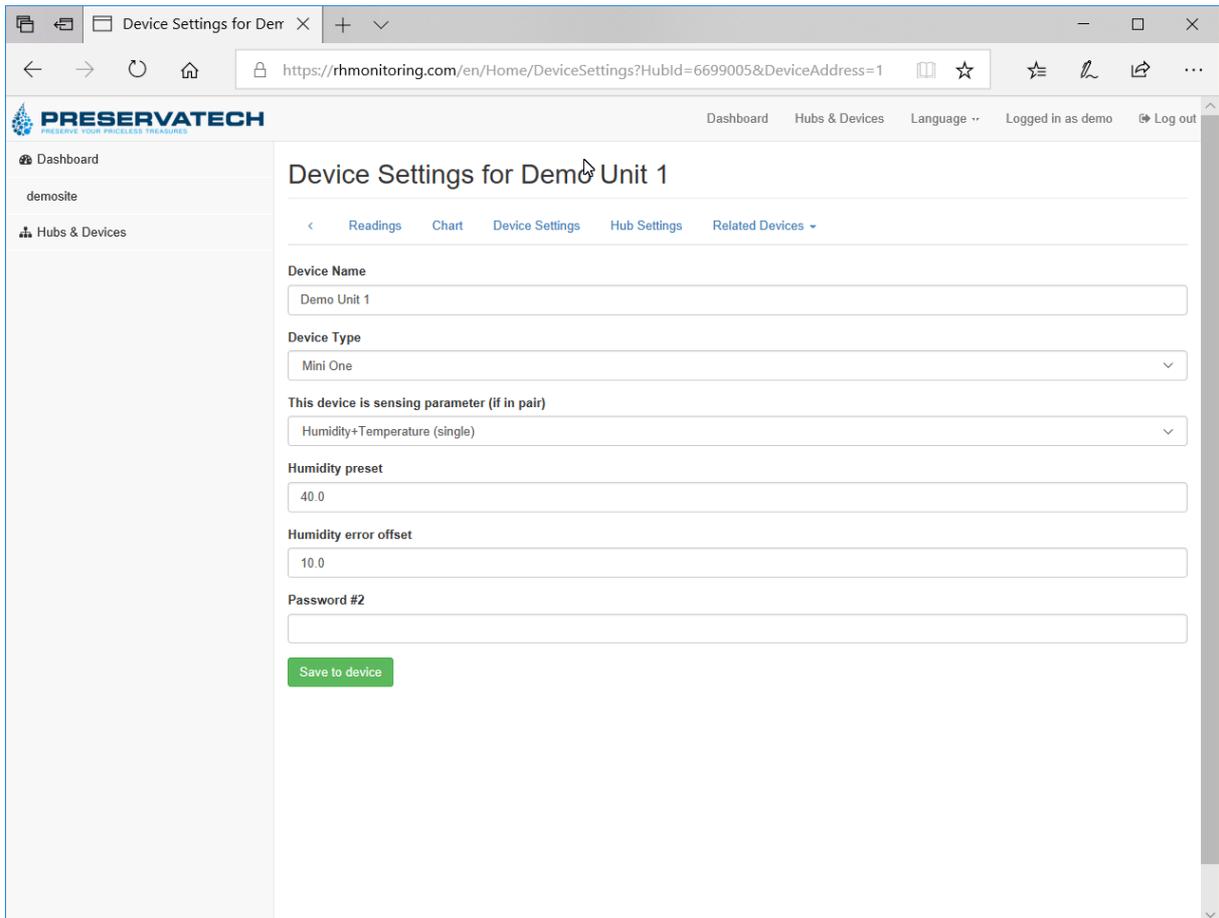


If a more accurate reading is needed, the bottom yellow banner can be changed to see data within few hours. Just move the edge of the yellow banner to see desired time span.

When Mini One, PMCG and Maxi One is monitored only RH and T is shown on chart, for air quality sensors in addition levels of CO₂, TVOC, dust particles <10 μm and <2.5 μm are also shown.

Device Settings

Device settings are accessible from the Dashboard by clicking “Settings” for any particular device.



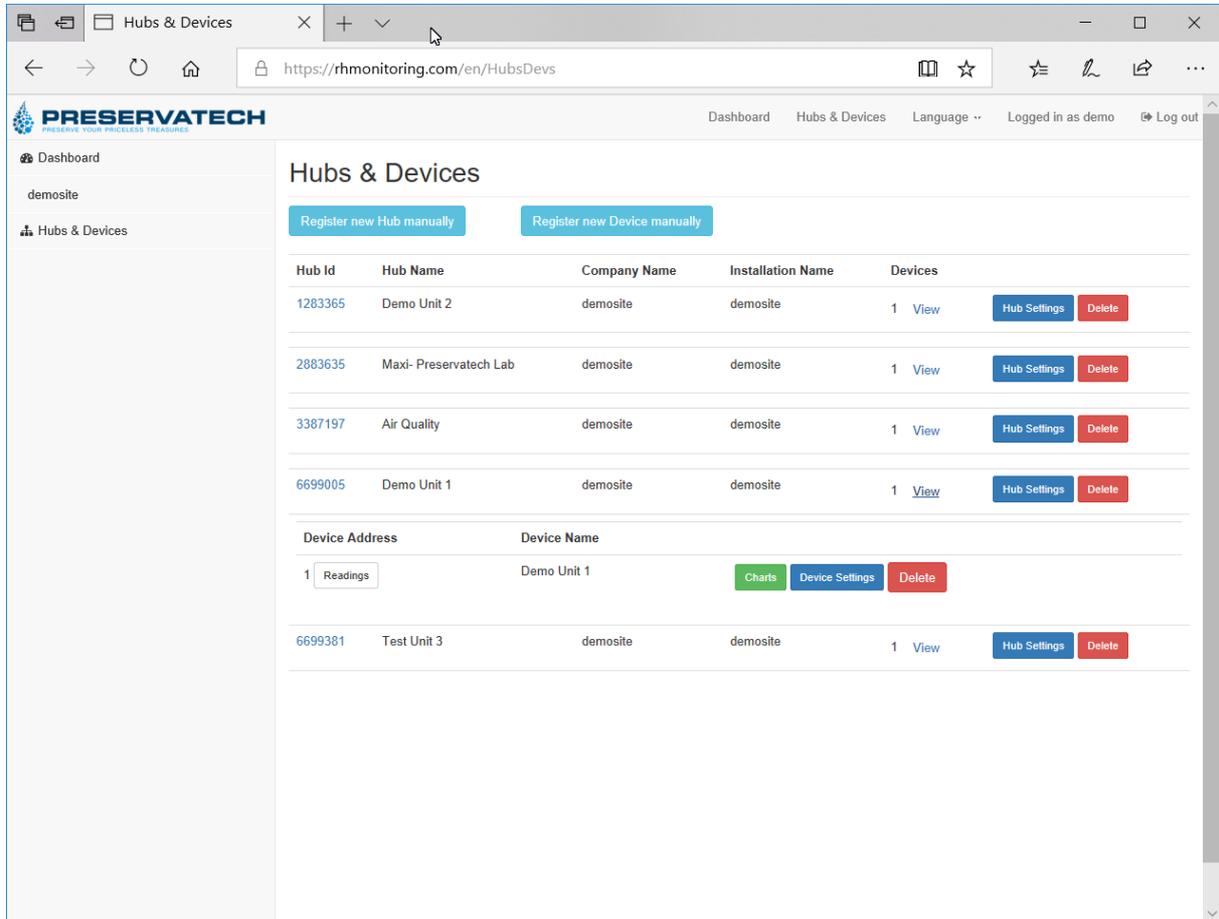
The screenshot shows a web browser window displaying the 'Device Settings for Demo Unit 1' page. The page has a navigation bar with 'Dashboard', 'Hubs & Devices', 'Language', 'Logged in as demo', and 'Log out'. A sidebar on the left contains 'Dashboard' and 'Hubs & Devices'. The main content area has a breadcrumb trail: '< Readings Chart Device Settings Hub Settings Related Devices >'. The settings form includes the following fields:

- Device Name:** Demo Unit 1
- Device Type:** Mini One
- This device is sensing parameter (if in pair):** Humidity+Temperature (single)
- Humidity preset:** 40.0
- Humidity error offset:** 10.0
- Password #2:** (empty)

A green 'Save to device' button is located at the bottom of the form.

1. Device Name: Name of the particular device connected. This name will be used by the monitoring site and will be visible on the dashboard.
2. Device type: this should not be changed.
3. This device is sensing parameter: this should not be changed.
4. Humidity preset. Target RH. Value set by user.
5. Humidity error offset: value of alarm offset when machine is out or range. More information in our machines manuals.
6. Save to device: saves settings.

Hubs & Devices



The screenshot shows a web browser window with the URL <https://rhmonitoring.com/en/HubsDevs>. The page title is "Hubs & Devices". The interface includes a sidebar with navigation options: Dashboard, demosite, and Hubs & Devices. The main content area has two buttons: "Register new Hub manually" and "Register new Device manually". Below these are two tables.

Hub Id	Hub Name	Company Name	Installation Name	Devices	
1283365	Demo Unit 2	demosite	demosite	1	View Hub Settings Delete
2883635	Maxi- Preservatech Lab	demosite	demosite	1	View Hub Settings Delete
3387197	Air Quality	demosite	demosite	1	View Hub Settings Delete
6699005	Demo Unit 1	demosite	demosite	1	View Hub Settings Delete

Device Address	Device Name	
1	Readings	Demo Unit 1 Charts Device Settings Delete
6699381	Test Unit 3	demosite demosite 1 View Hub Settings Delete

Hubs are WiFi devices installed inside the machines which allow the devices to connect to a network. Under normal circumstances there is no need to change any of the hub parameters. Hubs are not visible on the dashboard.