CE MonitorApp - User Manual - EN

1. Introduction 🔗

This is the user manual for the "CE MonitorApp," an application designed for real-time monitoring of climate conditions. The app is tailored for individuals who wish to control environments such as server rooms, warehouses, refrigerators, or industrial spaces, without the need for expensive equipment and complex configurations.

The application is available on a subscription model, with current plans detailed on the 🖳 Chip Electronics - Rozwiązania monitoringu para metrów środowiskowych i IoT and 🖼 Monitorowanie warunków klimatycznych w jednym miejscu z wykresami, alarmami email i SMS .

1.1 Description 🔗

"CE MonitorApp" is a cloud-based application featuring a built-in WWW interface, SMS and email alarms, push notifications, and charts. It enables users to track climatic conditions and receive notifications from devices monitoring the climate in a specified environment.

The application is divided into five main sections:
- *Dashboard: A user-customizable view providing general information about the system, its status, and measured values from recorders.*
- *Monitoring: This section includes specific sensors, environmental parameters, and options for grouping recorders.*
- *Devices: Contains a list of controllers and SecurityHUB assigned to the user's account.*
- *Alarms: Here, users can find a list of events and alarms, along with the ability to set them.*
- *Notifications: This section features a list of system and recorder notifications, along with the ability to define templates for them.*

2. First Steps 🔗

To start using the application, visit https://cemonitorapp.com/ and register to take advantage of a 30-day free trial.

2.1 Warnings and Notes 🔗

⚠️ Ensure you have a stable internet connection while using the app.

⚠️ Avoid sharing your login details with third parties. The application supports specific models of recorders and sensors implemented by the developers. You can find a list of these in the section on supported hardware.

⚠️ It's possible to add new recorders upon special requests from clients or equipment manufacturers.

2.2 Configuration Notes 🔗

The application is accessible via a web browser, eliminating the need for installing any additional software.

Additionally, a downloadable mobile version is available, which can be obtained from the Google Play Store for Android devices or the App Store for iOS devices (coming soon).

Details regarding the configuration of individual sections can be found in the subsequent sections of this manual.

2.3 User Access Considerations 🔗

There are various levels of access and features depending on the chosen plan: BASIC, OPTIMAL, and LIFETIME. Each plan offers different features and limits.

To familiarize yourself with the features of each package, visit 📊 Monitorowanie warunków klimatycznych w jednym miejscu z wykresami, alarmami email i SMS .
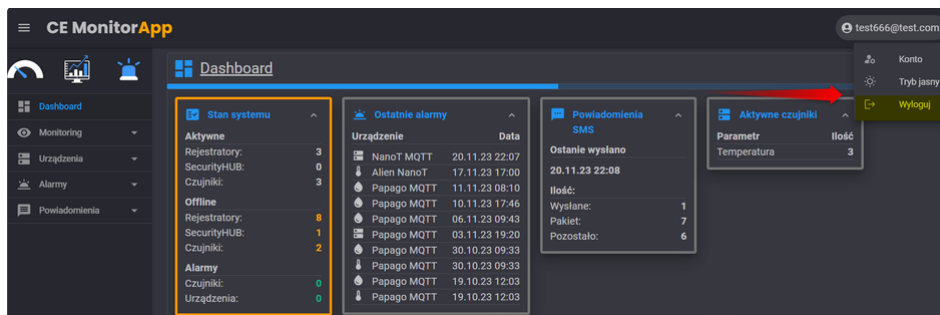
2.4 System Access 🔗

To access the system, visit http://cemonitorapp.com/ and log in using your user ID and password provided during registration.
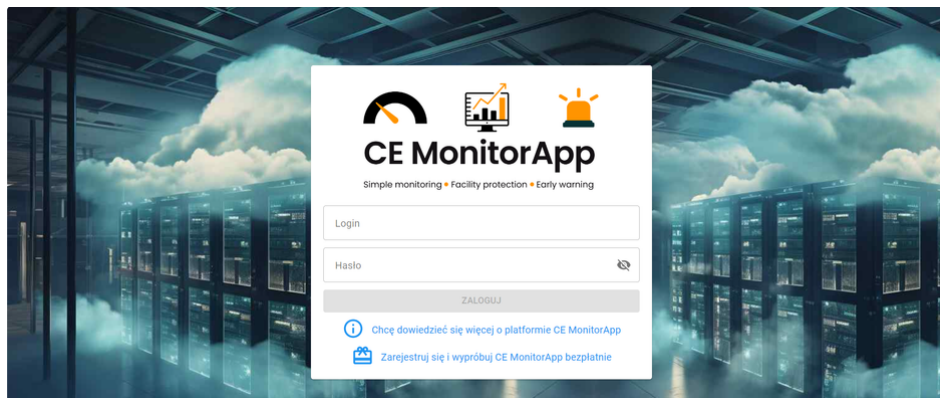
2.5 Logging Out of the System 🔗

To log out of the system, click the "Logout" button located in the upper right corner of the interface.


2.6 Mobile Application 🔗

The mobile application functions similarly to the web browser version. All steps are exactly the same.

3. Using the System 🔗

The application offers various features, such as historical charts, email and push notifications, and the ability to integrate with different monitoring devices.

3.1 Adding a unit 🔗

Step 1: To add a new recorder, navigate to the Devices -> Main units section and click the "+" in the upper right corner of the section.
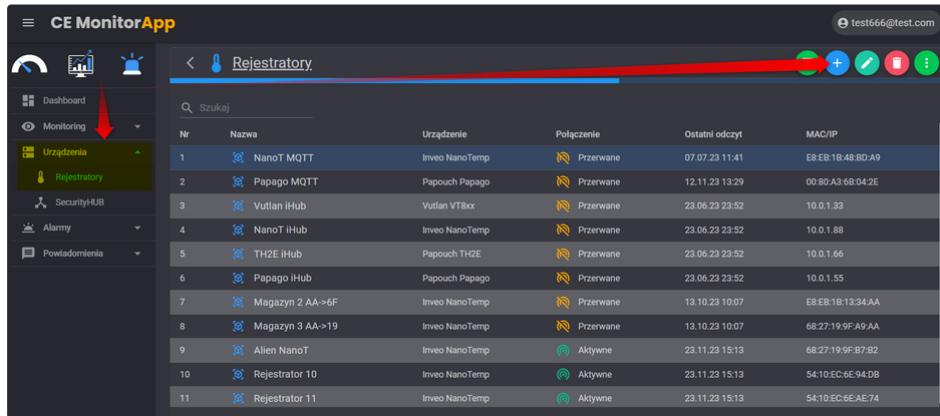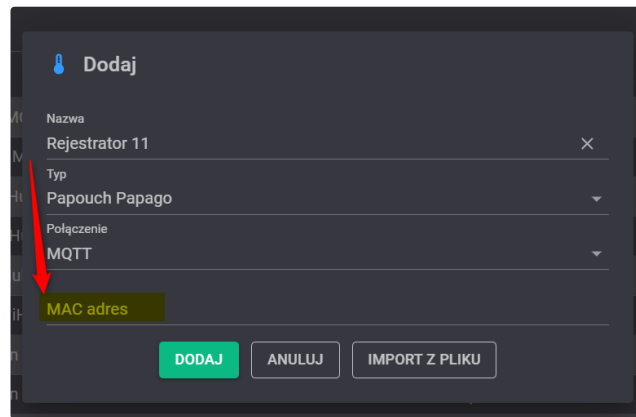

Step 2: After clicking, a dialog box will appear where you need to assign a name, select the type of recorder (its model), and choose the connection version (MQTT or SecurityHUB).
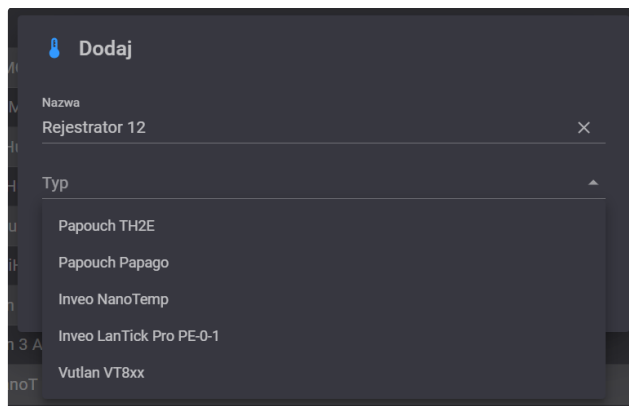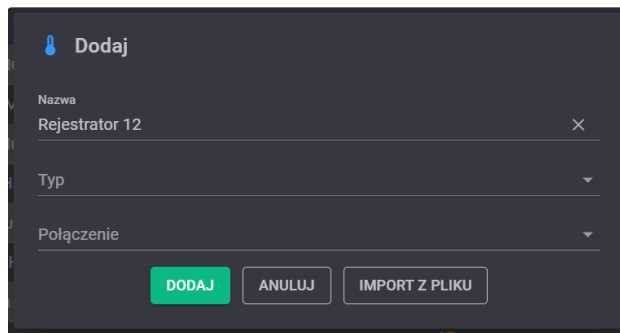
Step 3a: If the chosen option is SecurityHUB, add the IP address and MAC address of the SecurityHUB.
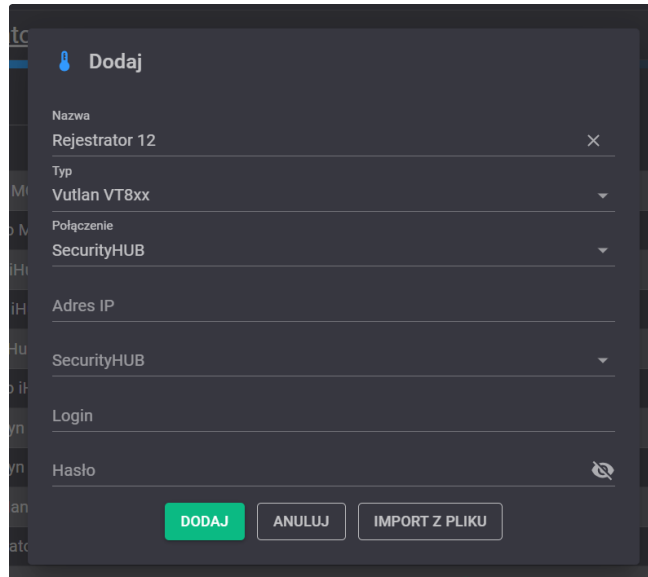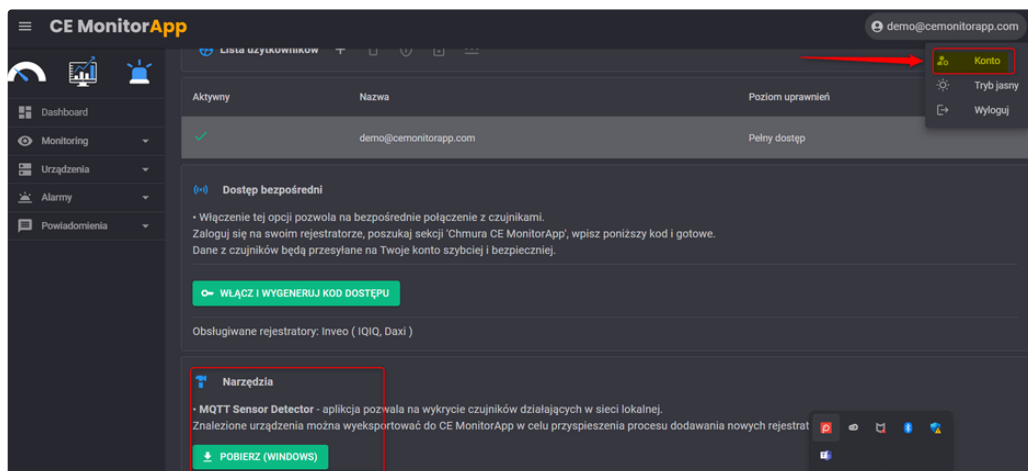
Step 3b: For MQTT, add the MAC address of the recorder.

3.1.1 **Main Units Supporting MQTT Protocol** 🔗

3.1.1.1 Automatic Configuration Using MQTT Sensor Detector App 🔗

The MQTT Sensor Detector application can be downloaded from the account panel.

Its operation is described in detail in section 3.1.3 Adding Multiple Devices.

3.1.1.2 **Manual Configuration through the Device's Administrative Panel** 🔗

For Inveo devices:

1. Log in to the device.

2. Go to the 'Administration' tab and select the 'Enable MQTT Inveo' option.

3. Navigate to the 'Network Configuration' tab.

4. In the 'MQTT Address' field, enter mqtt.inveo.com.pl.

5. In the 'MQTT Port' field, enter 1883.

6. Press the 'Save config' button.

For Papouch devices:

1. Log in to the device.

2. Go to the device settings.

3. Navigate to the 'HTTP/MQTT' option.

4. In the 'Mode' field, set it to MQTT.

5. In the 'Send periodically' field, enter 1.

6. In the 'Host' field, enter "broker.hivemq.com"

7. In the 'Port number' field, enter 1883.

8. In the 'Path / Topic' field, enter chip/integra/sensors/papago/0080A36B042E.

9. Press the 'SAVE' button.

3.1.2 SecurityHUB Version 🔗

ecorders without MQTT support require a SecurityHUB device operating within the same network as the recorders.

1. A device connected via SecurityHUB does not require additional configuration.

2. The IP address of the device must match the settings in CE MonitorApp.

3. The selected SecurityHUB and recorders must be connected to the same LAN network.

⚠️ When using SecurityHUB, there is no need for manual configuration of the recorders. You can use the auto-detection option described here.
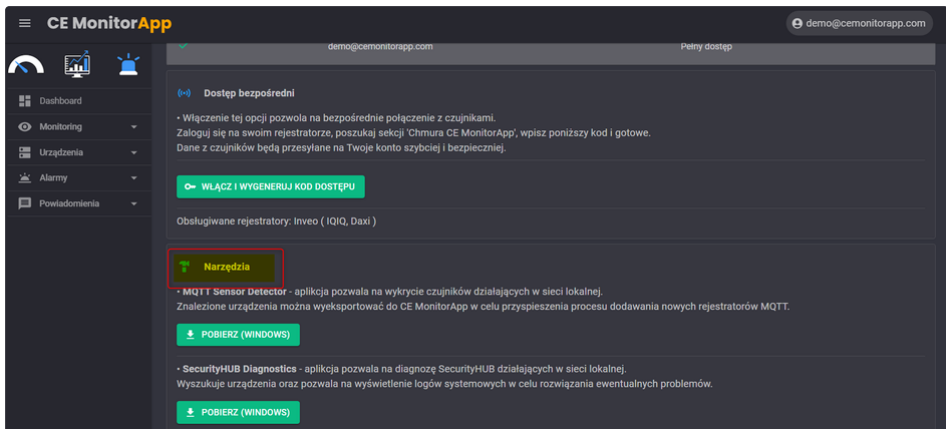
3.1.3 Adding Multiple Devices 🔗

CE MonitorApp allows for the addition of multiple MQTT Main units operating within the local network. You can create a file using the MQTT Sensor Detector tool, which can be downloaded from your account panel.

Step 1: Click on the "Account" section.
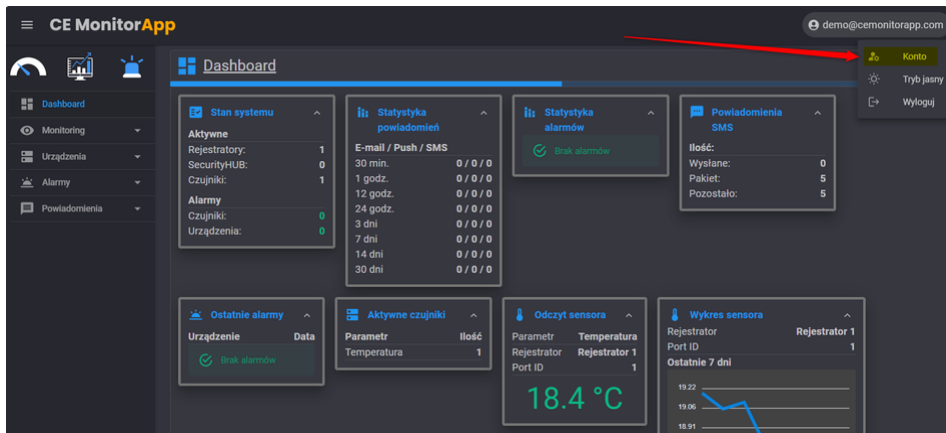
Step 2: In the Account panel, go to the "Tools" section and download the MQTT Sensor Detector.

Step 3: Launch the application and start the scanner by clicking on the "Detect sensors" button.

Step 4: After detecting devices on the network, export the data to a file and save it on your disk.

Step 5: Add the Main units to the application by going to Devices -> Main units -> click the "+" in the upper right corner and select "Import from file" in the dialog box.
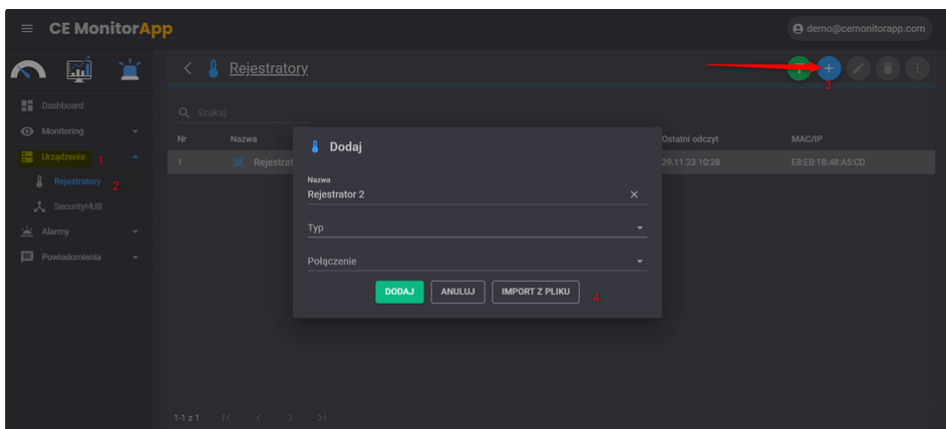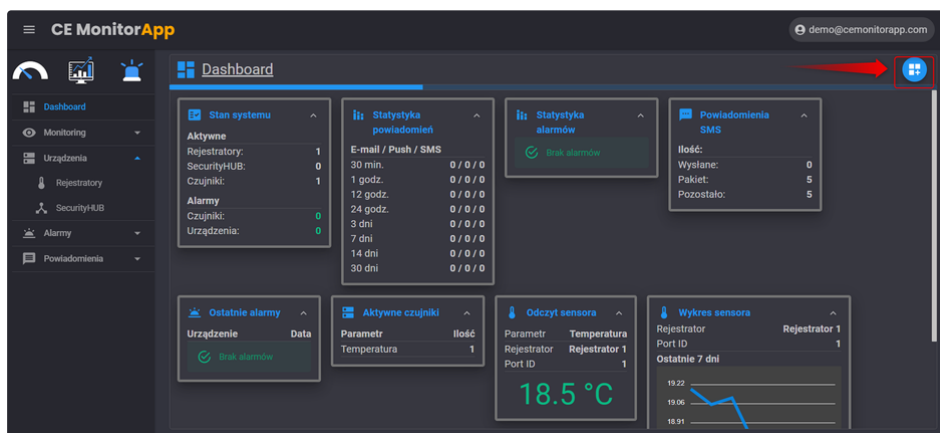

3.2 Dashboard 🔗

3.2.1 Description of the "Dashboard" Section 🔗

The Dashboard section is the main view that the user sees upon logging into CE MonitorApp.
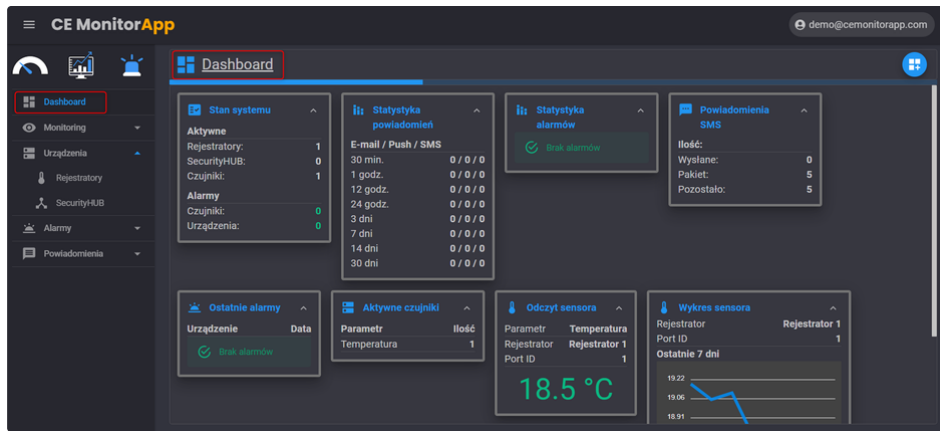
Widgets visible to the user are customizable and can be freely removed or added.
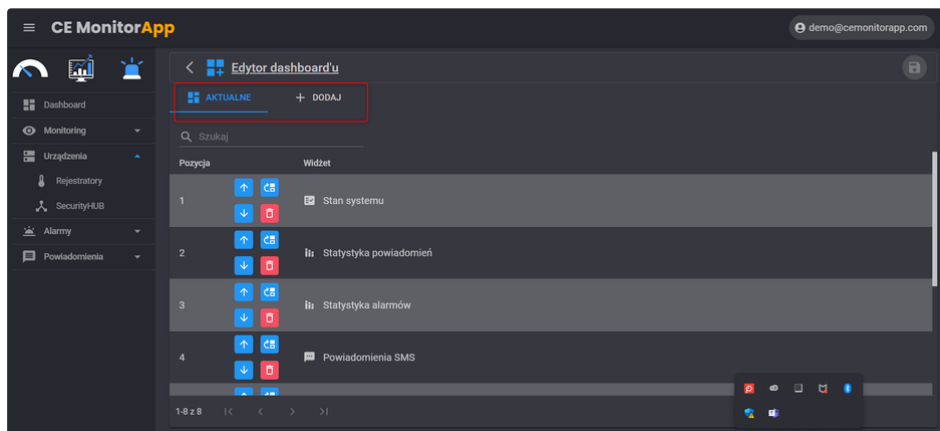
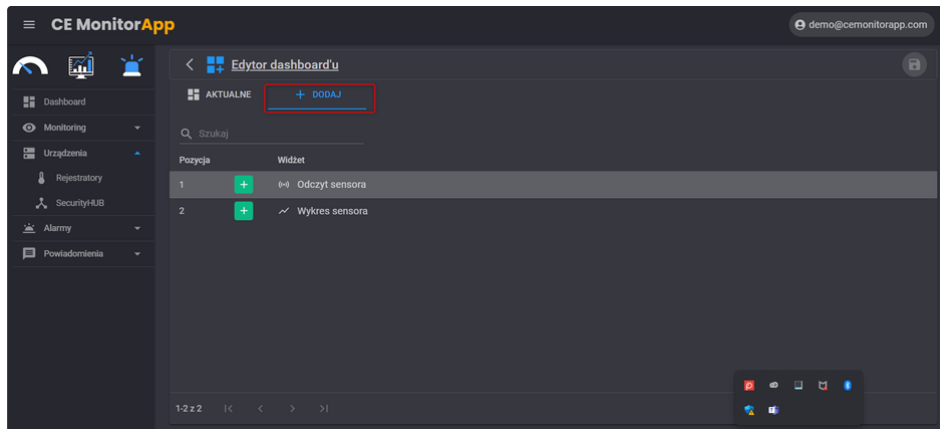To do this, go to the Editor available in the upper right corner:

After clicking, the "Dashboard Editor" will open, where you can view, add, delete, or rearrange widgets.

The Dashboard Editor is divided into two tabs:

1. "Current," which displays the currently used widgets and their layout.
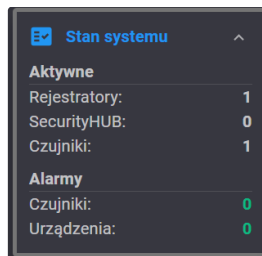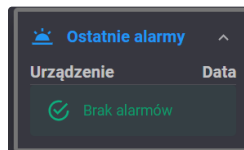2. "Add," where additional widgets available for your system can be found.
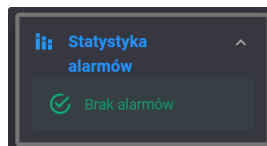
3.2.2 **Available Widgets** 🔗

System Status: Describes the current status of sensors and devices in your account.

Recent Alarms: Information about the latest alarms in the system.

Alarm Statistics: Information about all alarms in the system within specified time intervals.

Notification Statistics: A summary of all notifications in the system within specified time intervals.

SMS Notifications: A summary of all sent, available in the package, and remaining SMS alarms.

Active Sensors: A summary of the number of active sensors in the system along with their parameters.

Sensor Reading: Information about the current reading from a selected main unit and parameter.

Sensor Chart: A chart providing information on the current reading from a selected main unit and parameter over a chosen time interval.
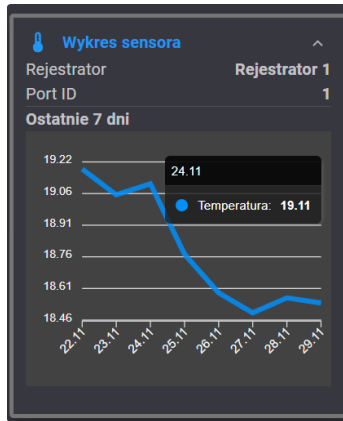
⚠️ Each widget can be collapsed or expanded by clicking the "^" symbol in the upper right corner of the widget.

3.3 **Monitoring** 🔗

The "Monitoring" tab is used for quick reading of parameters from controllers connected to the account.

Information described in the general view includes:

1. Controller Status
2. Controller ID
3. Parameter Reading
4. Date of Last Reading
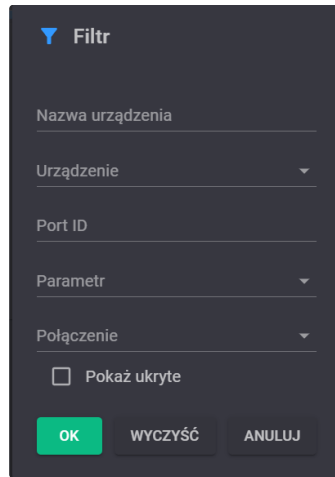5. Type of Connection

Filters and Collapsing

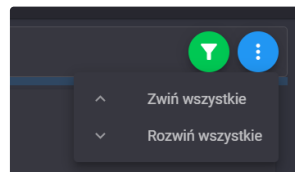The application also allows for filtering and bulk collapsing of individual parameters.

The filtering window enables showing/hiding parameters based on:

1. Name
2. Device Model

3. Device ID
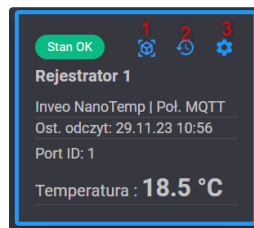
4. Parameter

5. Type of Connection

Bulk collapsing/expanding is possible by clicking on the symbol:
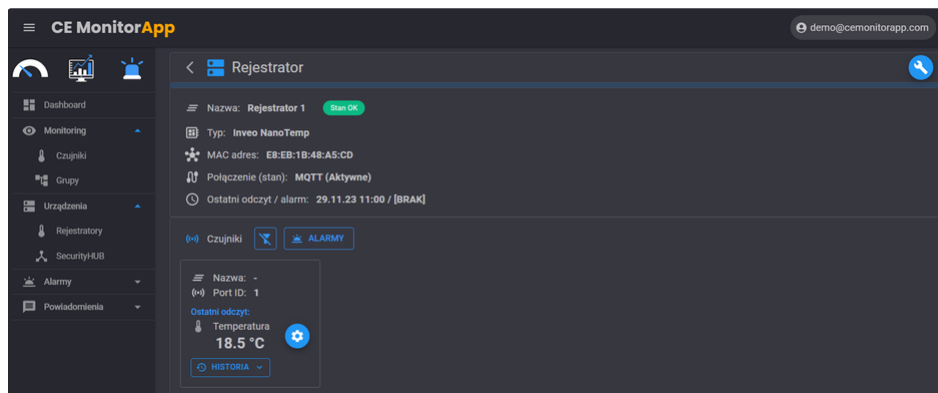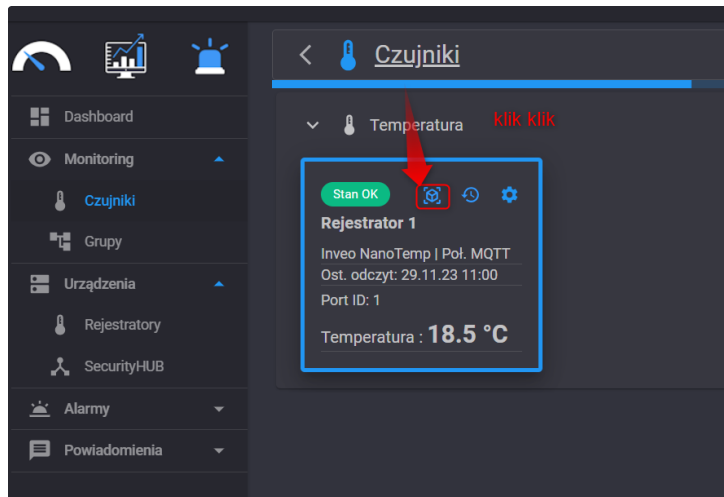

3.3.1 Sensors 🔗

Each parameter allows access to a detailed view, history, and settings.

1. Detailed View

2. History

3. Settings

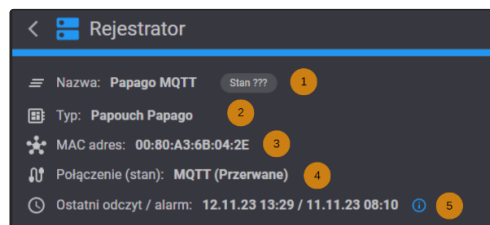### 3.3.1.1 Sensors – Detailed View 🔗

In the detailed view, you can browse and set all information regarding a specific main unit and the sensors connected to it.

This section describes:

1. Device Name

2. Type (Model) of Device

3. MAC Address

4. Type of Connection with the Application

5. Last Reading

The second part describes individual parameters from sensors that are connected to a specific main unit.

1. Last Reading of the Parameter

2. Sensor Settings (alarms, sensor name)

3. Alarms from Sensors Connected to the Main Unit

4. Measurement History of a Specific Sensor

3.3.1.1.1 Sensor Measurement History 🔗

The application stores the measurement history for up to 360 days. To view it, click the "History" button and select the period of interest. The history can also be viewed for a specific day.
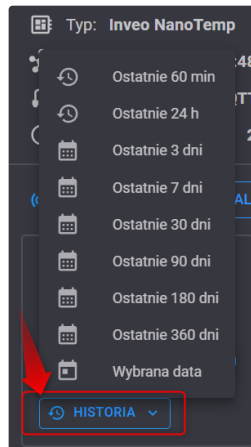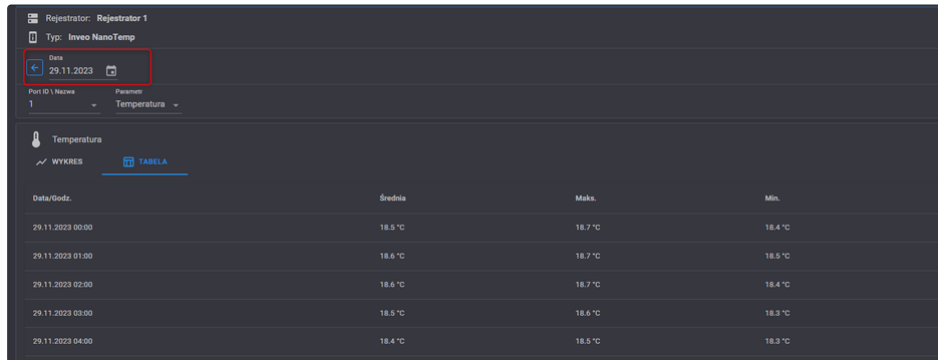

Measured values can be presented as maximum, minimum, or average readings (1). Data can also be displayed in a table format:
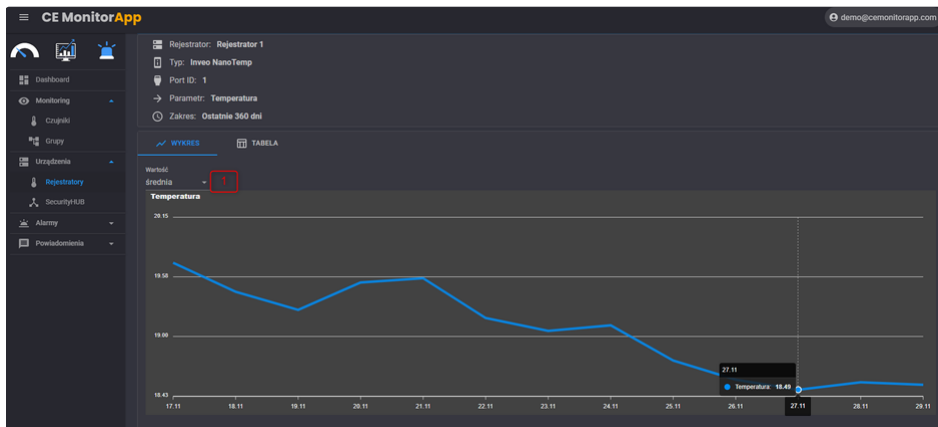
By clicking on a specific date, you can view the parameter history for that particular day.

⚠️ The daily view allows for tracking the measurement history with an hourly time interval.

3.3.2 **Groups** 🔗

CE MonitorApp allows for grouping controllers according to preference:
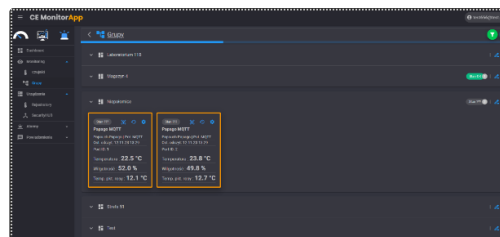
⚠️ The main view of groups enables filtering of the displayed groups to simplify navigation.
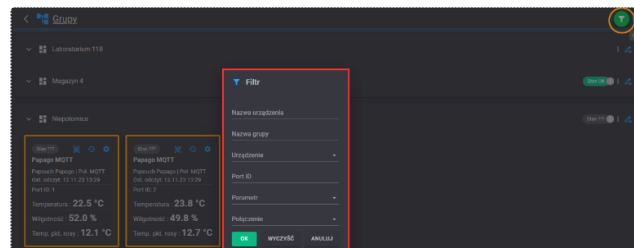
3.3.2.1 Group Management 🔗
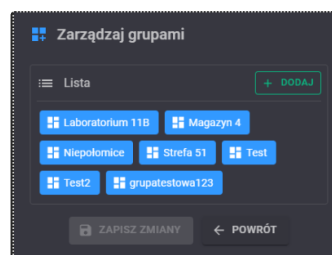
To access the group management view, navigate to the section

and click "Manage Groups."

Upon clicking, the following view will appear:

To add a new group, you should:

1. Click "+ Add."

2. Enter the group name.

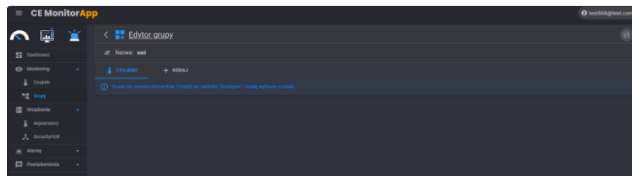3. Click "Save."

4. Click "Save Changes."

Assigning to Groups

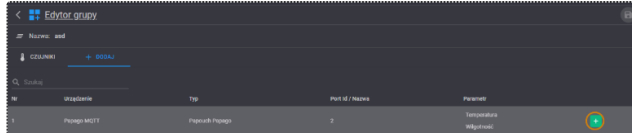To assign a main unit or sensor to a group, click the edit symbol.

After clicking, the group view will appear with two tabs:

1. Sensors

2. +Add

To add a main unit or sensor, go to the "+ Add" tab and click the symbol.

After adding, save the view with the symbol.

Removing a Main Unit or Sensor from Groups

Removing a main unit is done in a manner similar to its addition.

To do this, navigate to the "Sensors" tab view, click the symbol
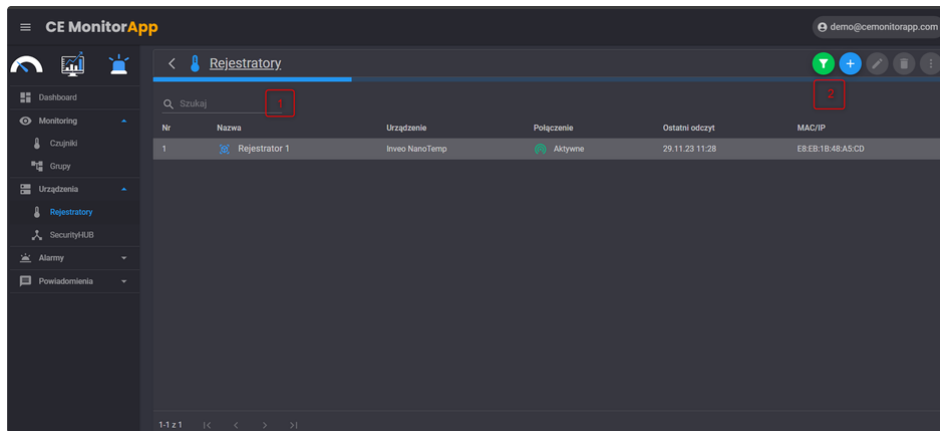

and save the view by clicking.

3.4 Devices 🔗

The "Devices" section is where you can manage all devices integrated with your CE MonitorApp subscription. It is divided into two subsections: Main Units and SecurityHUB.

This section includes a search bar (1), a filtering section, and options for adding/removing main units, editing, among other features (2).
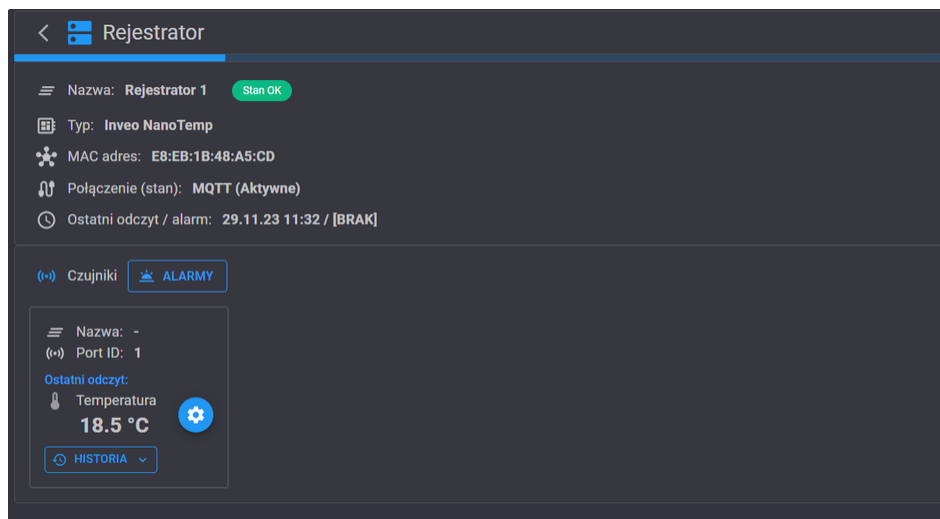
3.4.1 Main Units 🔗

The main view of the Main Units subsection allows for access to the main view, easy identification of the device type, connection status, last reading, and MAC/IP address.
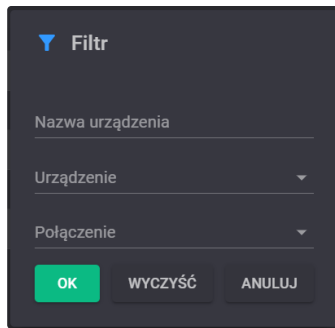
To access the view of individual main units, click the symbol next to its name.

3.4.1.1 Filtering Main Units 🔗

The application also allows for filtering and bulk collapsing of individual parameters. To do this, click the symbol in the upper right corner of the section.

Filtering Main Units Window

The filtering window allows for showing/hiding parameters based on:

1. Name
2. Device Model
3. Type of Connection

3.4.1.2 Adding Main Units 🔗

The procedure for adding main units is described in section 3.1 Adding a Main Unit.

3.4.1.3 Editing Main Units 🔗

To edit a main unit, click on the line with the selected main unit (1) and click the edit symbol:

in the upper right corner of the section. After this action, a dialog box will appear allowing you to proceed to edit parameters or alarms. Parameters refer to the settings of a specific device. After making changes, click "Save Changes".
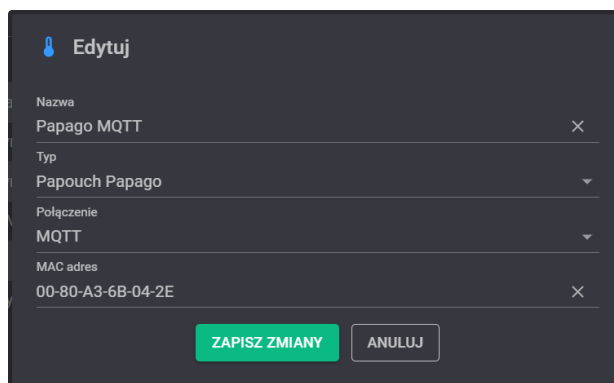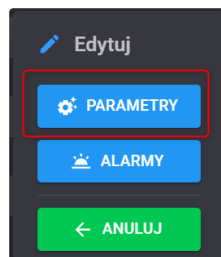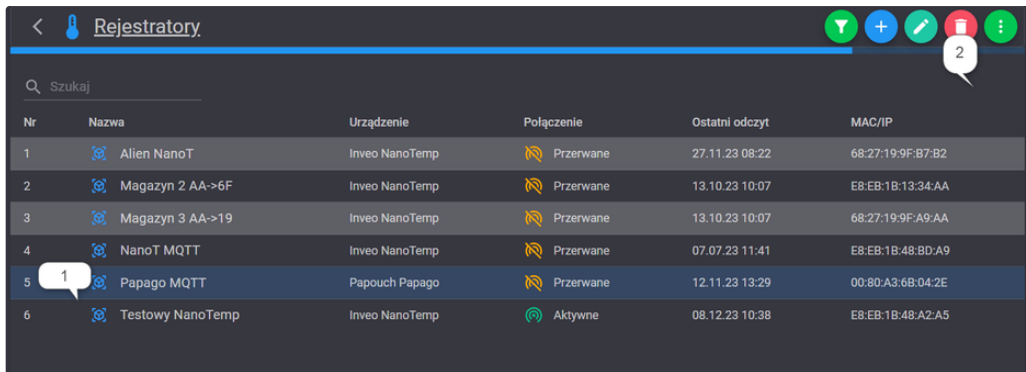

Alarms, on the other hand, allow you to define alarms for a specific main unit based on communication or a pattern defined in the templates of the "Alarms" section, which are described in section 3.5.
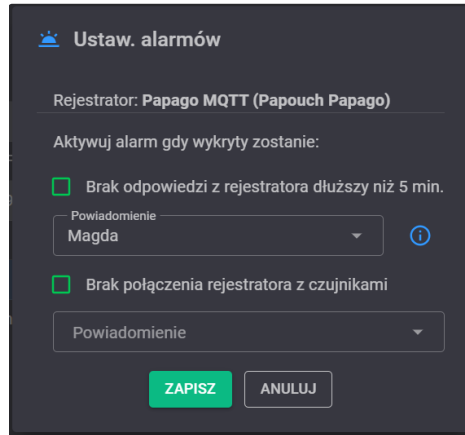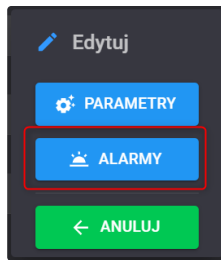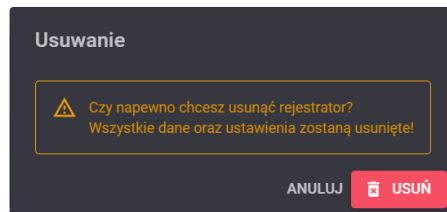
3.4.1.4 Deleting Main Units 🔗

To remove a main unit from the list, select the item (1) and click the trash can symbol (2) in the upper right corner.

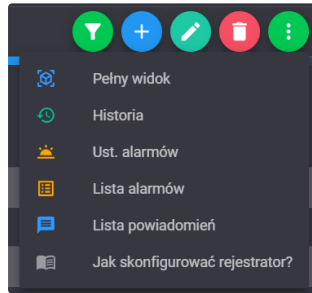and confirm the deletion by clicking the "Delete" button in the dialog box.

3.4.1.5 Other Main Unit Settings 🔗

Clicking on any main unit and the symbol

will expand a list of additional options:

1. Full View, allowing access to the detailed view of the main unit.

2. Measurement history of the main unit.

3. Alarm settings.

4. List of generated alarms.

5. List of generated notifications.

6. Configuration instructions for the main unit, which are tailored to the type of the specific main unit and may vary depending on the type.

3.4.2 SecurityHUB 🔗

SecurityHUB is a device that enhances the security of sensor communication and also enables older generation main units or those without cloud support features to communicate with CE MonitorApp. Clicking on the "SecurityHUB" section will open the main view with a list of available SecurityHUBs.
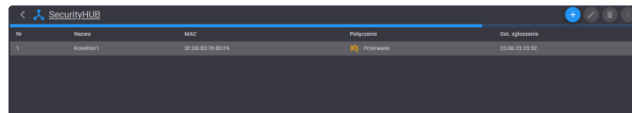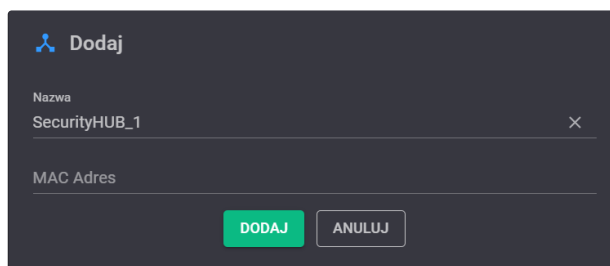

3.4.2.1 Adding SecurityHUB 🔗

To add a SecurityHUB, click on the symbol

after which a dialog box will appear, where you need to enter the name of the SecurityHUB and its MAC address. After adding, click the "Add" button.

3.4.2.2 Editing SecurityHUB 🔗

To edit a SecurityHUB, click on the symbol.

after which a dialog box will appear, where you can change the name of the SecurityHUB and its MAC address. After making changes, click the "Save Changes" button.

3.4.2.3 Deleting SecurityHUB 🔗

To delete a SecurityHUB, click on the symbol

and confirm the deletion.

3.4.2.4 Auto-Detection of Main Units via SecurityHUB 🔗

SecurityHUB enables quick identification of main units within the network through the auto-detection feature.

To use it, press the button:

and click the "Auto-Detect Main Units" option.

3.5 Alarms 🔗

The alarms section is where you can find a record of all critical events and the ability to define alarms for each of them.
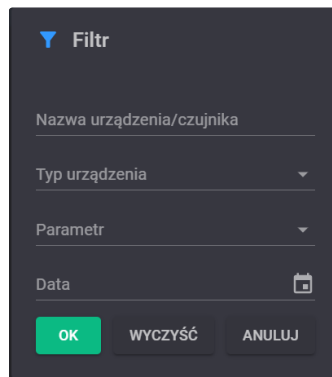
3.5.1 Event List 🔗

The sub-section "Event List" is where all alarms generated by main units or sensors are listed.

There is an option to filter alarms by clicking on the symbol.

As a result of this action, the following window will appear:

Filtering is possible based on:

1. Name of the main unit or sensor.
2. Type of device.
3. Parameter.
4. Date of the event occurrence.

3.5.1.1 Unmarking Alarms 🔗

The interface allows for bulk or individual unmarking of alarms.

To unmark all alarms, click the symbol

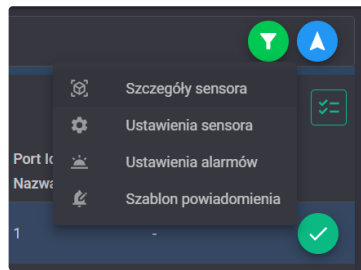To unmark a single alarm, click the symbol next to the specific notification.

3.5.1.2 Navigating to an Alarm 🔗

To access the details of an alarm, select the relevant one and go to "Navigate" by clicking the symbol

in the upper right corner.

1. This will lead you to the details of the sensor where the alarm occurred.
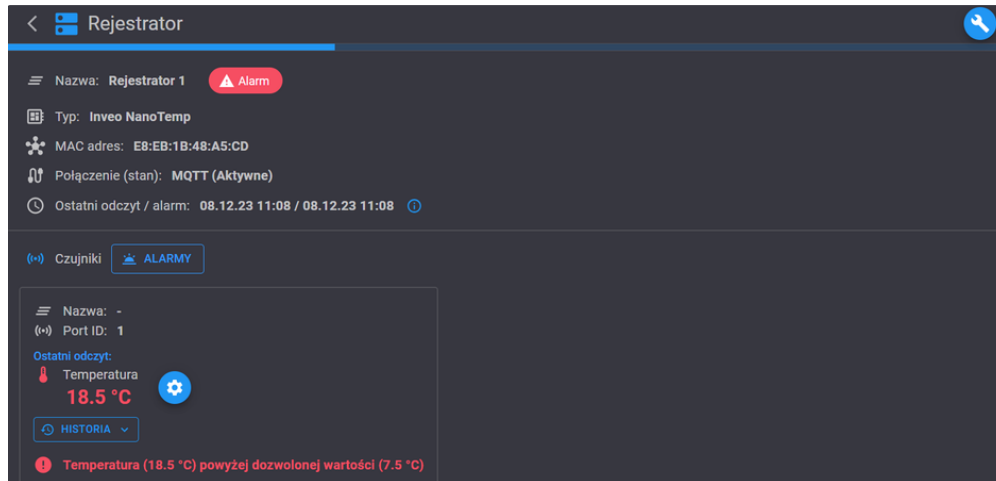
2. Settings of the Sensor Where the Alarm Occurred
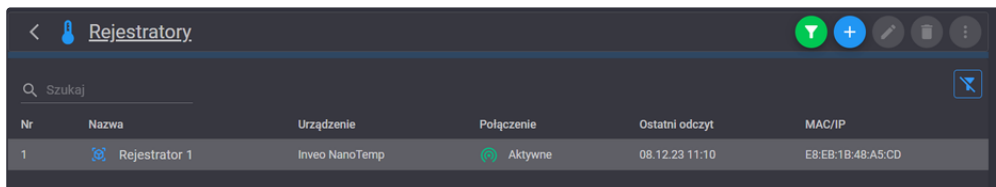
3. Alarm Settings
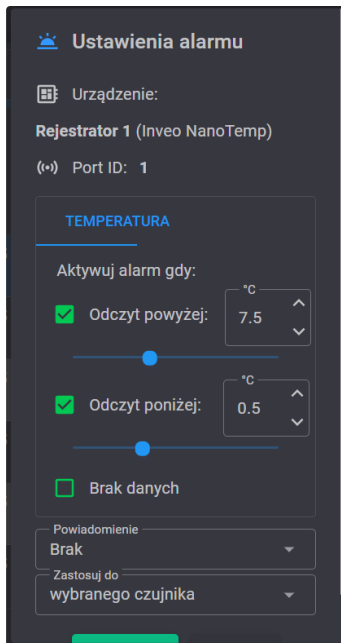
4. Notification Templates
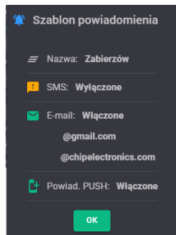
3.5.2 Settings 🔗

CE MonitorApp allows for setting alarms at the level of sensors and main units separately.
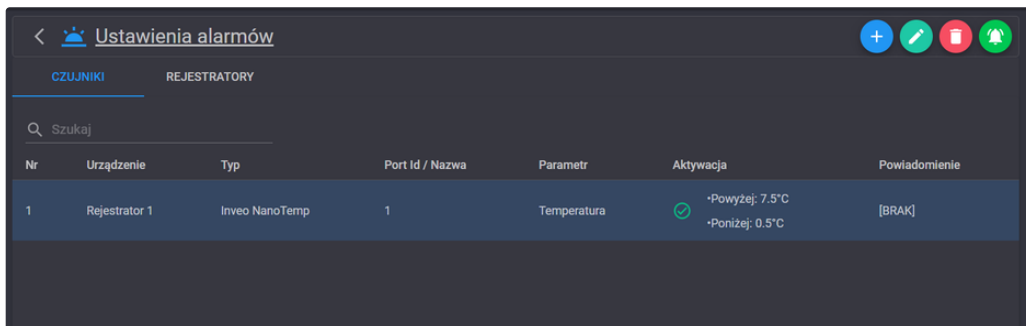
3.5.2.1 Sensor Settings 🔗

At the sensor level, it's possible to easily identify the device, type, name the sensor, specify the parameter, determine when it should be activated, and the name of the notification. To add an alarm for a sensor, click on the symbol

As a result, a window will appear where you need to select the device and sensor. After selecting, click the "Next" button.
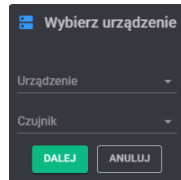
In the next step, another dialog box will appear where you need to specify the trigger point for the alarm.

This can be set to activate upon exceeding the lower or upper limit of a parameter (1), in case of no communication with the sensor or main unit (2). Additionally, you can select a notification template (3) and whether the alarm should be applied to a specific sensor, all sensors connected to the device, or the entire system (4). After choosing the settings, click the "Apply" button.

Edit

To edit alarm settings, select the line and click the edit icon.

after which the alarm settings window will appear again.

Deleting

To delete the alarm settings for the sensor, click the button
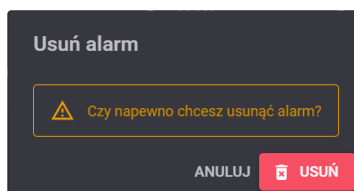

and confirm the deletion in the window:

Notification information To display the current sensor settings, click on the line and the symbol in the upper right corner.

3.5.2.2 Main unit settings 🔗

You can also set alarms at the main unit level. To do this, go to the "Main Units" tab, where a list of main units added to the system will be displayed. To edit the selected main unit, select the line and click the icon

At the main unit level, you can set notifications about the lack of communication between the system and the main units or the main unit and the sensors. After making changes, click the "Save" button to save them.

3.6 Notifications 🔗

The "Notifications" tab is used to view the history and set notifications.

3.6.1 List 🔗

In the default view, notifications that have not yet been displayed as an alarm are displayed.

To view the full history, click the symbol

and select "Push notification sent" (1).

3.6.2 Templates 🔗

CE MonitorApp also allows you to create alarm configuration templates.
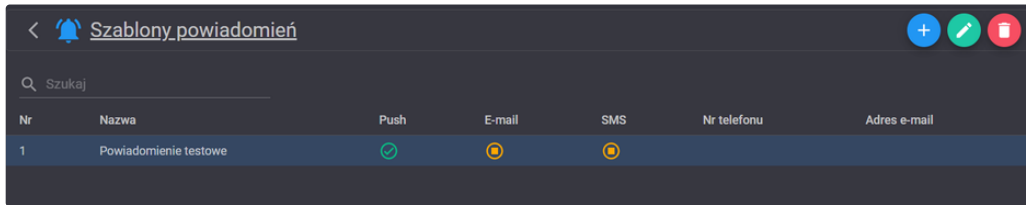
3.6.2.1 Adding templates 🔗

To add a template, click on the symbol

As a result of this action, a window will appear, where you can give a name to the template (1) and select the type of alarm that interests us. You can enable all of them at once, two of them or just one. It is also possible to set the alarm in specific time intervals (2). This is possible for each type of notification.
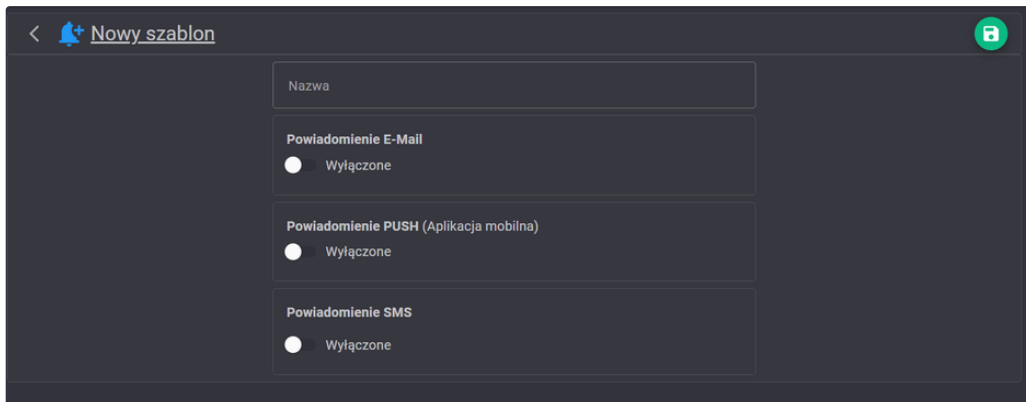
❗ To add an email, you need to enter the email address you are interested in and click the "Add" button.

❗ In the case of a phone number, you need to enter it in the form of +48123456789.

To save the entered template, you need to click the symbol

3.6.2.2 Editing templates 🔗

To edit a template, you need to select the line you are interested in and click

The editing process is analogous to the adding process.

3.6.2.3 Deleting templates 🔗

To delete a template, you need to select the line you are interested in and click

Each deletion must be additionally confirmed in the dialog window.
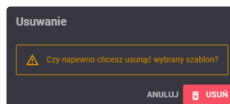
4. Security HUB 🔗

4.1 Device description 🔗

A specialized device that allows the integration of the cloud service CE MonitorApp with main units that do not support MQTT technology and increases security by double encryption of data.

4.2 Technical data 🔗

- Interface: Ethernet, LAN
- Metal housing
- Dimensions: 44 x 47 x 33 mm
- Ethernet 10/100 Mb

4.3 Configuration 🔗

To identify the SecurityHUBs connected to the network, you can use the "SecurityHUB Diagnostics" application, which you can download in the account panel.

After downloading, unpack the files on your disk and run the application to identify the SecurityHUBs.

Done!

5. Troubleshooting and support 🔗

If you have any problems with the application, contact the technical support team. The current email address is support.cemonitorapp@chipelectronics.com.

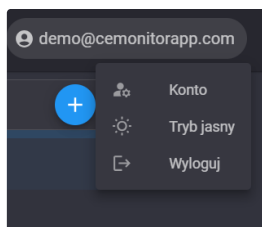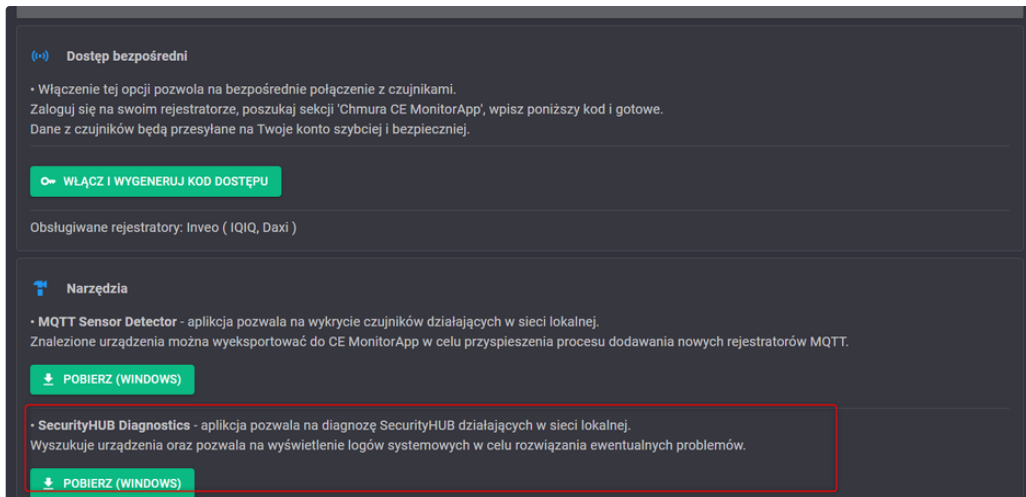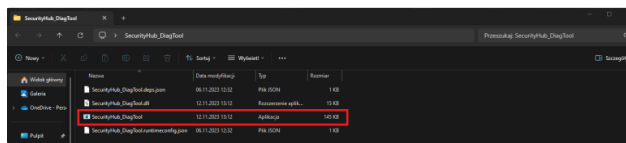## 5.1 Error messages 🔗

If you receive an error message, note down the message content and contact the support team. The current email address is support.cemonitorapp@chipelectronics.com.

5.2 Special notes 🔗

Make sure that your monitoring device is compatible with the "CE MonitorApp" application. You can find the list of current devices at: Urz adzenia Kompatybilne z CE MonitorApp - Chip Electronics - Rozwiązania monitoringu parametrów środowiskowych i IoT

5.3 Support 🔗

Technical support is available depending on the selected plan. Contact details can be found in the "Support Contact Points" section.

Table 1 - Punkty kontaktowe wsparcia.

Contact	Organization	Phone	Email	Role	Responsibility
Adrian Brania	Chip Electronics	+48 608 390 603	support.cemonitorapp@chipelectronics.com	1st Tier support	Product Owner

Annex A: List of changes 🔗

This section contains a list of all changes in this documentation

Table 2 - Record of Changes

Version Number	Date	Author/Owner	Description of Change
0.1	21/11/2023	Product Owner	1st release

Annex B: Glossary 🔗

The following section contains terms specific to CE MonitorApp that are intended to improve the understanding of the application's operation.

Table 3 - Słownik

Term	Acronym	Definition
Bramka SecurityHUB	SecurityHUB	Wyspecjalizowane urządzenie pozwalające na integracje usługi chmurowej CE MonitorApp z rejestratorami nie obsługującymi technologii MQTT i zwiększające bezpieczeństwo przez podwójne szyfrowanie danych.
Rejestrator	Rejestrator	Urządzenie służące do zbierania pomiarów z podłączonych czujników i sond
Czujnik	Czujnik	Sonda lub czujnik zbierający informacje na temat konkretnego parametru
Alarm	Alarm	Informacja o wystąpieniu zdefiniowanej sytuacji krytycznej
Powiadomienie	Powiadomienie	Informacja o wystąpieniu zdarzenia w systemie

Annex C: Additional documents 🔗

The following section contains a list of additional documents that serve as supplements to this instruction.

Table 4 – Odnośniki do dokumentów

Document Name	Document Location and/or URL	Issuance Date
n/a	n/a	n/a