

EH-net server

User manual

EH-net helps you control a facility's heating, ventilation and its other major functions using an internet browser from your home, office, or even from the other end of the world. Users of facilities get faster service, a more comfortable living environment, and safer surroundings.

EH-net is ideal for apartment buildings, offices, schools, commercial buildings, industrial halls, and other facilities that have to be monitored and controlled using many different functions.

Being able to visually inspect many functions in the same user interface helps you optimize building automation control and maximize energy efficiency.

In the beginning of this user manual functions are illustrated in a simpler form for persons having write and read rights. The most important functions for administrators are illustrated in section 2 at the end of the user manual. Functions used for configuration and administration of the system are illustrated in detail in the "Configuration and administration" guide.



What is EH-net?

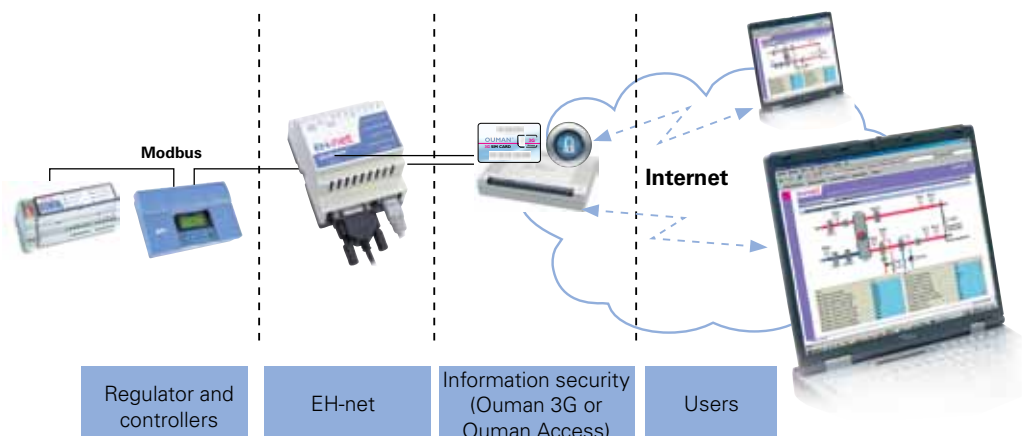
The EH-net server is a product that makes it possible to remotely operate Ouman control devices and systems via the internet. Building automation systems connected to the EH-net server can be used anywhere having internet service using an internet browser. Ouman products that can be connected to EH-net function independently even after they are connected no problems are caused if they become temporarily disconnected. The product can be installed in new locations or in locations already having Ouman control devices and systems.

Typical users

- maintenance men
- caretakers
- security services
- tenants and owners of facilities

Use with an internet browser

You do not have to get additional programs for your computer to use a browser. The user can control, adjust and monitor building technology regardless of the time and place. Supported browsers are Internet Explorer (version 8.0 or newer) and Mozilla Firefox (version 3.0 and newer).



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User levels and Logging in

The Ouman EH-net system has four separate user levels:

- Super administrator** = all rights
- Administrator** = the administrator can add users having write and read rights, but cannot change or check other server settings.
- Write** = Access to alarms and time programs as well as Modbus and trend overviews.
- Read** = Only access to page overview, alarms and time programs. Cannot change settings or time programs and cannot acknowledge alarms.

This user manual illustrates all the functions that can be accessed by persons with write and read rights and at the end of the manual (section 2) are found the main functions requiring administrator or super administrator rights. Functions that require administrator or super administrator rights are completely presented in the configuration and administration guide.

Logging in to the EH-net system occurs in the following manner:

Open the Internet browser and enter the EH-net server address. The address can be obtained from the system's super administrator. Enter the user name and password you obtained from the super administrator into the respective boxes.



Click the logout button to log out from the system.

EH-net has an automatic log out having a 15 minute default delay.



Pages

The pages contain information from the devices connected to the EH-net server, for example, measurement information, settings and contact information. The administrator or super administrator makes the pages and there may be several of them.

1. To bring up the page select the page from the pull-down menu.

The page has an overview (40 fields) for all user groups and an advanced overview (40 fields) for administrators and super administrators. All of the settings and measurement information do not have to be displayed in the overview, but the settings that are more rarely and more delicate used can be placed in the advanced overview.

The overviews are divided into left and right columns. One page can contain, e.g., settings, measurement information and status information from control systems and devices of one process. The overview and advanced overview both have the same background picture.

An example of a page with data from the EH-105 controller.

The screenshot displays the EH-net web interface. At the top, it shows 'EH-net' and 'OUMAN' logos, along with 'Logged in as: Administrator' and a 'Logout' button. A navigation menu includes 'Select page' (circled in red with a '1'), 'Modbus', 'Alarms', 'Trend', 'Time programs', 'Configuration', 'Server', and 'About...'. Below the menu, the page title is 'Measurements and settings. Time programs EH-105'. The main content area is titled 'AHU control' and features a schematic diagram of an air handling unit. The diagram shows two air streams: a top stream (red) and a bottom stream (blue). The top stream includes a fan (FG 2), a pressure differential sensor (PDS 2), and a temperature sensor (TE 2). The bottom stream includes a fan (FG 1), a pressure differential sensor (PDS 1), a temperature sensor (TE 1), a pressure indicator (PI), and a valve (TV 1). A central unit (AHU) is shown with a red and blue circular indicator. Below the diagram are two data tables:

Description	Value	Description	Value
TE0 Outdoor temperature	0.0	Damper control [%]	0
TE01 Supply air temperature	19.4	HRU control [%]	0
TE02 Room temperature	27.9	Heating control [%]	0

The page can also have a link to time programs. Setting and status information changes are presented on the next page. If a user has administrator or super administrator rights, he can access both the overview and advanced overview.

Checking and changing settings

EH-net can be used to change settings for all the devices connected to the EH-net system. Settings and status information are changed on the pages. The pages contain much important information about measurements, digital modes and settings. Typical status information is, e.g., burglar alarms or pump running information. It is also possible to open doors or control a sauna stove from EH-net pages or using a time program.

If a user tries to give a setting that is outside of the setting range of the control device EH-net gives an error message and does not change the setting (not including EH-60 and EH-686 devices).

Example of a page with information from several controllers:



1. Select the page you want to see.
2. To change a setting write it in the field and press the "set" button.
3. The control mode can be changed by choosing the desired control mode from the drop menu and pressing "set".
4. The EH-60/EH-686 devices can have several operating entities. These operating entities can have several different set values (max. 14). In the "Operating entity selection" drop menu you can see all the device's operating entities that have set values. Select the desired operating entity and press the "Set" button. Then the set value fields are updated to match the set values of the device. After this you can change the set values as described earlier.

Because of the way the EH-net functions, an old setting may appear for a moment after the "Set" button is pressed. Note! Check that the changed value remains in the field. (then you know the setting has been saved in the device).

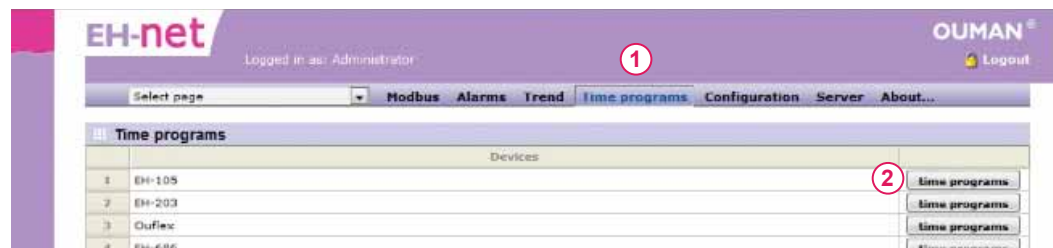
Time programs

EH-net makes it possible to remotely control time programs of all Ouman devices connected to it. The simple calendar function makes it easy to manage even complicated time programs.

You can check and adjust time programs with EH-net the same way as with the device, but EH-net's graphic mode is easy to read and faster to use. The time programs of individual devices look somewhat different and are presented somewhat differently but they are used in the same way.

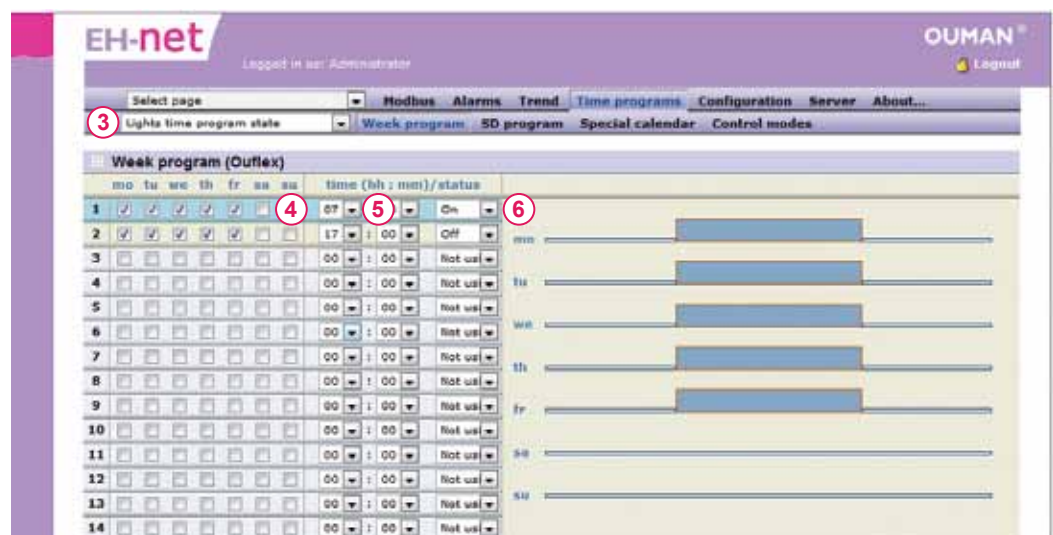


1. Time programs
2. Select the device whose time program you want to change



See the Ouman-device user manual for the specifics of time program function for the device in question!

The connection points in the EH-series time programs are forced on-off pairs.



The page that is brought up contains the current, updated week program. save program 7

3. If the device has several different time programs, select the time program you wish to inspect. You can make the selection from the pull-down menu (Ouflex, Ouflex C, Ouman Plus, EH-60, EH-686) or by pressing on the button of the desired time program (EH-200)
4. Select the days of the week that you want time controlled.
5. Enter the time for time control.
6. Select the mode in which the control is set.
7. Save the program

If you go, e.g., from the week program to the special day program without saving changes you will lose the changes made to the week program.

Time programs: Special day program

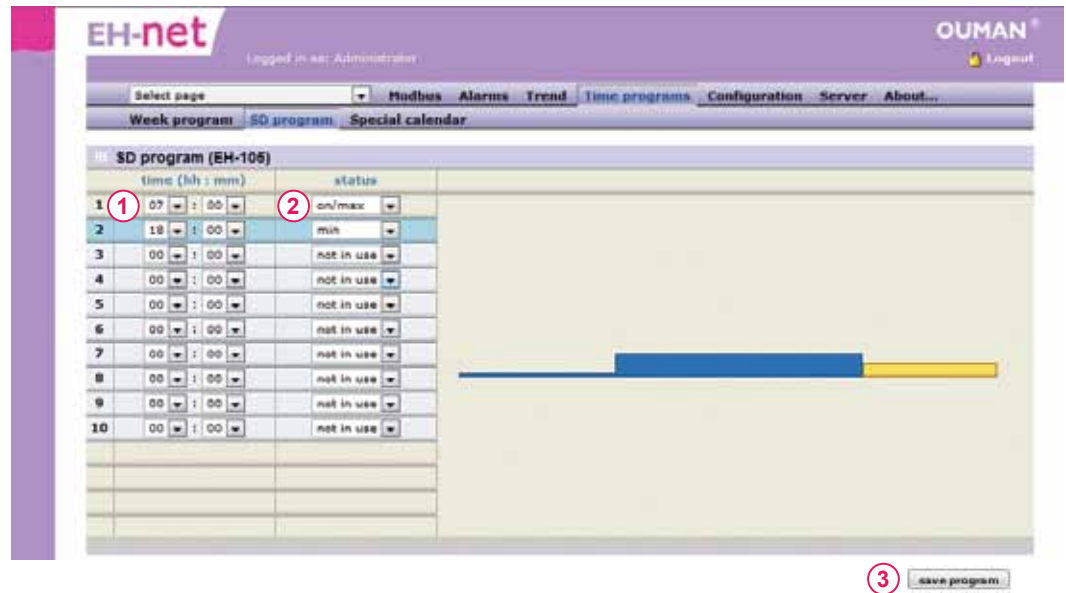
A special day program is made the same way with both the EH-net and the device. The special day program can be used in the exception calendar on certain days.

First we present the EH-105 special day program, where it is possible to make only one special day program. In addition to that we will present the special day program of the Ouflex-device, with which it is possible to create a maximum of 7 special day programs for a chosen function.



Time programs → **select the device** → **SD program**

! See the Ouman-device user manual for the specifics of time program function for the device in question!

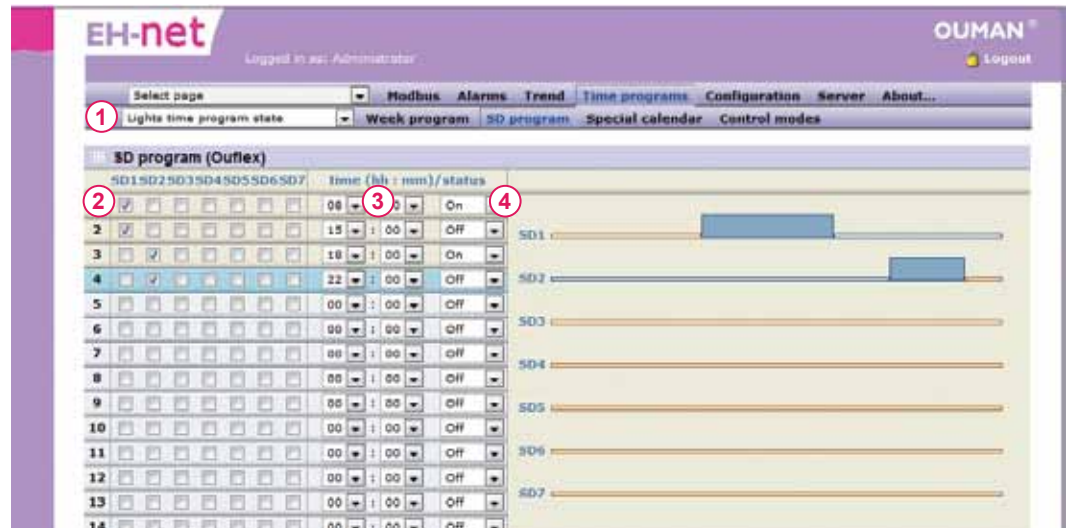


1. Select the time when the mode is to be set (hh:mm)
2. Select the control mode for tie time in question
3. Save changes

For example the special day program of the Ouflex-device



Time programs → **select the device** → **SD program**



1. Select the time program for which you want to make a special day program.
2. Select the special day(s) that are influenced by the time given hereafter
3. Set a time for the control
4. Set the state the control enters to at the previously set time.
5. Save the time program.
6. Be sure to add an ending time for the special day program. The made special day program is also visible as a graphic image.

Time programs: Special calendar

Control modes differing from normal week calendar are done in exception calendar. Exception calendar is stronger than week program
Remember to make also ending time of the control mode in the exception calendar

Example of an exception calendar (EH-105):



Time programs → **select the device** → **Special calendar**

	date (mm - dd)	time (hh : mm)	status
1	08 - 23	00	special day
2	08 - 23	00 : 1:00	Monday
3	01 - 01	00 : 1:00	not in use
4	01 - 01	00 : 1:00	not in use
5	01 - 01	00 : 1:00	not in use
6	01 - 01	00 : 1:00	not in use
7	01 - 01	00 : 1:00	not in use
8	01 - 01	00 : 1:00	not in use
9	01 - 01	00 : 1:00	not in use
10	01 - 01	00 : 1:00	not in use

1. Select the date (mm-dd) and
2. Time (hh:mm) when the mode is to be set
3. Select the control mode for the time in question
4. Save changes

Example of the special calendar of the Ouflex-device



Time programs → **select the device** → **Special calendar**

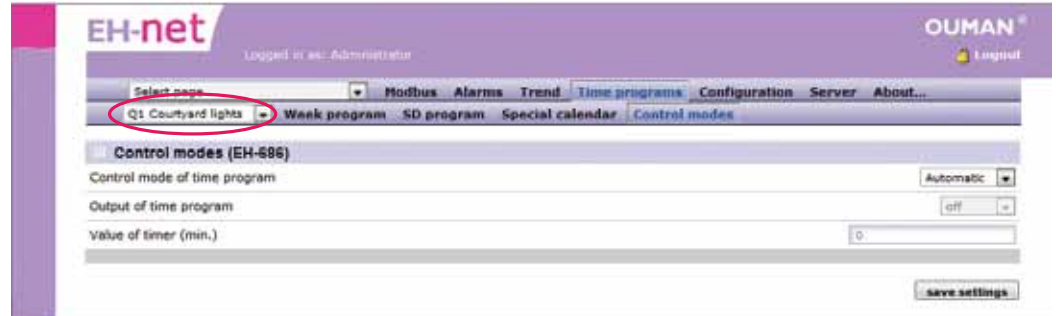
	date (mm - dd)	time (hh : mm)	type	status
1	2013 - 12 - 24	00 : 1:00	Day Of Week	Sunday
2	2012 - 12 - 31	22 : 1:00	Value	Automatic
3	2000 - 01 - 01	00 : 1:00	Not using	not in use
4	2000 - 01 - 01	00 : 1:00	Not using	not in use

1. Select the time program for which you want to make a special day program.
2. Select the time and date, when the state is set.
3. Select to what type of state the control is set
 - if you select a state that accords to a weekday, choose what weekday's time program is followed.
 - if you select a value, set the state (for example on/off, min/max)
 - if you select a special day, select what special day's time program is followed.
4. The special calendar program is used for controlling until the special calendar program directs to return to the automatic control mode.
5. In the end press "Save calendar"

Time programs: Control modes

You can change the control mode from automatic to manual via EH-net. First select the function the control mode of which you want to inspect.

Control modes of the functions of the EH-60/EH-686 and Ouflex devices:



Time programs → **Control mode**

1. Select the function, the control mode of which you want to inspect, from pull-down menu.
2. The display shows the control mode that has been selected. The following options are available for control mode:

"Automatic"

"Timer" (available only for EH-60/EH-686 devices) or

"Continuous"

When "Automatic" is selected, then the normal week program or special calendar is followed. The control of EH-60/686 devices can be "forced" by a timer to a certain state for a particular period of time (minutes). **In addition, the normal calendar programs can be directed by selecting the "Continuous" mode**, where the control of the EH-60/686 or Ouflex devices is set to the desired continuous state.

Acknowledging and checking alarms

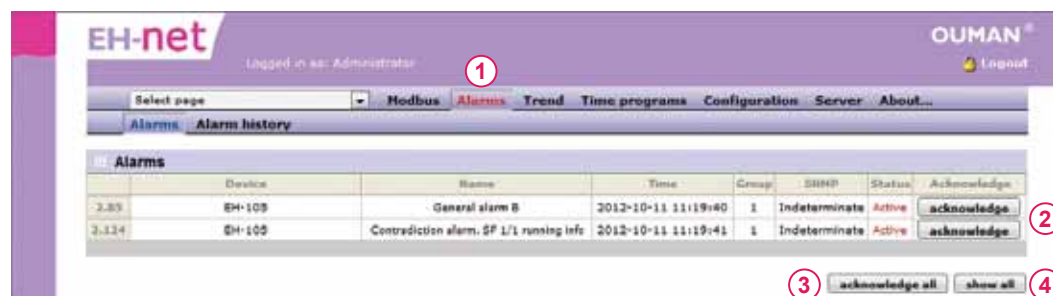
The super administrator and administrator are responsible for bringing alarm information to the EH-net system.

EH-net can receive and save all alarms from devices connected to it. EH-net gives a reception alarm if within a certain time period no connection is made with a device connected to the Modbus via EH-net. EH-net also makes it possible to have programmed alarms, e.g., from measurement points with freely selectable settings ranges. EH-net sends messages it has received to an e-mail address, a GSM phone as a text message and/or to another system (SNMP).

The “Alarms” text on the menu begins to blink when a device on the bus has an active alarm. The alarms can be acknowledged from EH-net. The control device/system’s alarm will stop sounding when the alarm is acknowledged. The “Alarm” text will be red if the alarm has been acknowledged but is still active. If an external siren is connected to the EH-device, it will also stop sounding.

The alarm mode

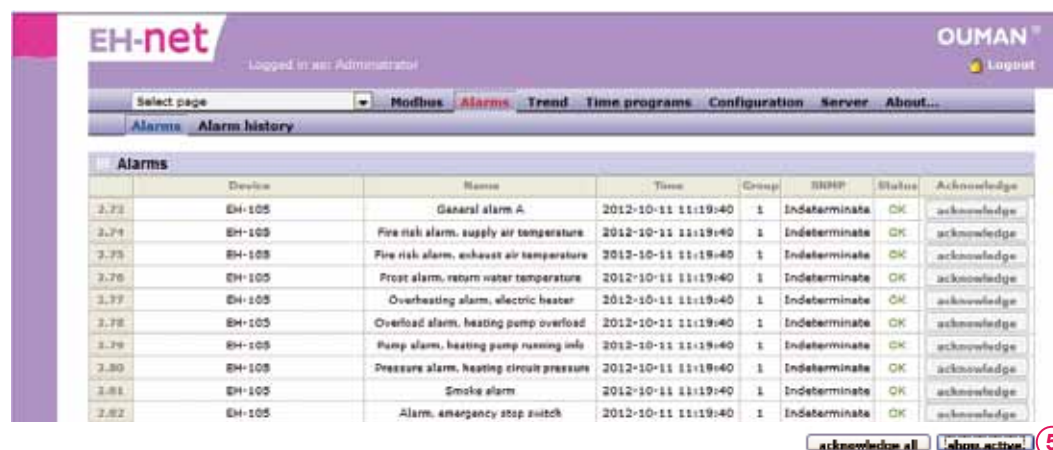
Alarms → Alarms



1. The “Alarms” text on the main menu blinks red when there is an active alarm on the EH-net which has not been acknowledged. When there are no active alarms on the EH-net, no alarms can be seen in the alarm menu. Press the “show all” button to see to all active and inactive alarms that have come to EH-net.
2. Press the “acknowledge” button to acknowledge the alarm.

Active = The alarm is active.
 = The alarm has been acknowledged on the EH-net
 = the alarm has not been acknowledged on the EH-net
OK = The alarm was but is no longer active.

3. Press “acknowledge all” to acknowledge alarms.
4. Press “show all” to display all the alarm points brought to and created for EH-net that can be gotten via EH-net. In this state OK indicates that the alarm is not active. Active alarms can also be acknowledged from here.



5. Press “show active” to return to a display that shows only active alarms.

Alarm history

EH-net saves the last 100 events. The events appear in the alarm history. The following information is saved:

- the device the alarm has come from
- the type of alarm
- when the alarm has come
- to whom the alarm has been sent
- how the alarm has been classified (how urgent/serious)
- when it has been sent to a higher monitoring level (SNMP information transfer) (if the alarm information is sent to a GSM number or e-mail address this classification is irrelevant)
- where the alarm has been (e-mail address or GSM number)



Alarms → **Alarm history**

	Device	Name	Time	Status	Group	Severity	Additional
8	EH-105	Pump alarm, heating pump running info	2012-10-11 11:31:23	Changed	1	Indeterminate	1
7	EH-105	Pump alarm, heating pump running info	2012-10-11 11:31:23	Activated	1	Indeterminate	1
6	EH-105	General alarm A	2012-10-11 11:31:22	Changed	1	Indeterminate	1
5	EH-105	General alarm A	2012-10-11 11:31:21	Activated	1	Indeterminate	1
4	EH-105	General alarm B	2012-10-11 11:30:57	Removed	1	Indeterminate	0
3	EH-105	Contradiction alarm, SF 1/1 running info	2012-10-11 11:30:56	Removed	1	Indeterminate	0
2	EH-105	Contradiction alarm, SF 1/1 running info	2012-10-11 11:30:44	Acked	1	Indeterminate	Administrator
1	EH-105	General alarm B	2012-10-11 11:30:44	Acked	1	Indeterminate	Administrator

An illustration of an alarm history after “show only alarms” has been selected

	Device	Name	Time	Status	Group	Severity	Additional
7	EH-105	Pump alarm, heating pump running info	2012-10-11 11:31:23	Activated	1	Indeterminate	1
5	EH-105	General alarm A	2012-10-11 11:31:21	Activated	1	Indeterminate	1

= you can check active and acknowledged alarms and see to which GSM numbers or e-mail addresses information about the alarm has been sent and whether the information has been received.

= a maximum of 100 alarms can be seen on the display in chronological order.

= alarm history information is cleared from EH-net.

Trend inspection

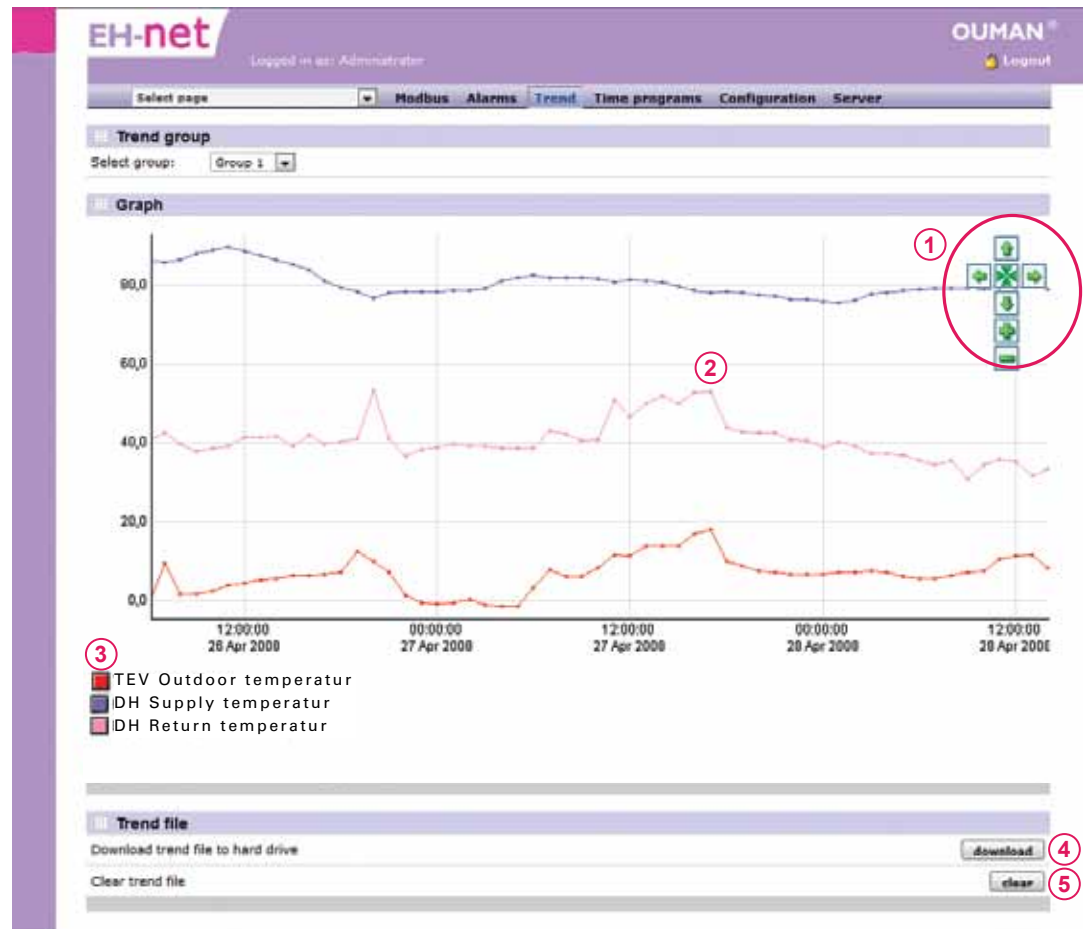
In EH-net it is possible to create a maximum of 10 trend groups and make group-based settings of how much of the trend storage space each group can use. Trend data can be saved to the computer's hard drive as an Excel-file (in CSV form) for later viewing.

Trend settings and the start and end of trend collection can be done by a person who has the rights of super administrator or administrator (see p. 3).

Inspection of the collected trend in graphic form:



Trend



1. With the graphic display button you can zoom in, zoom out or scroll in different directions.
2. The points on the graph represent the trend point value at the time of entry. By moving the mouse's indicator to the point, you will see the exact value of the point and its entry time. The sampling interval is the same for all points of the group.
3. If you want to hide a trend point graph, click the coloured square next to the name of the trend point. The graph can be made visible again by clicking the square once more.
4. You can save the trend data on the computer's hard drive by clicking the "download" button. The trend data is saved as a .csv file which can be opened using for example the MS Excel.
5. The trend file in the EH-net server is emptied by pressing the "Clear" button in the "Trend" section. Note! Clearing the file does not stop the collection of trend. If the EH-net user only has the rights to read, he/she can not empty the trend file.

To scale the picture keep the left button of the mouse pressed and border the area you want to see. Press the button to return.

Modbus status

EH-net automatically collects information about Modbus traffic.



Modbus

The screenshot shows the EH-net web interface. At the top, it says "EH-net" and "Logged in as: Administrator". There is a navigation menu with "Modbus" selected. Below the menu is a "Serial Modbus Status" section with a table:

Incoming Modbus/TCP queries (0/10)	Valid Responses	Serial timeouts	Exceptions	CRC Errors	Buffer Overruns	Frame Errors
EH-103	13901	0	0	0	0	0
EH-505	0	0	0	0	0	0
Ouflex	4	0	0	0	0	0
EH-506	27	0	0	0	0	0

Below the table is a "Reboot EH-net device" section with a "reboot" button. Below that is a "GPRS Modem status" section showing "Modem disabled". A red circle with the number "1" is placed over the "clear" button in the top right corner of the table area.

1. You can delete information collected about Modbus traffic.

External questions appear in the "Incoming queries" column.
Questions from EH-net appear in the other "Outcoming queries" column.

Creating user IDs

Section 2 (pages 14-22): For persons with administrator and super administrator rights.

The Ouman EH-net system has four separate user levels:

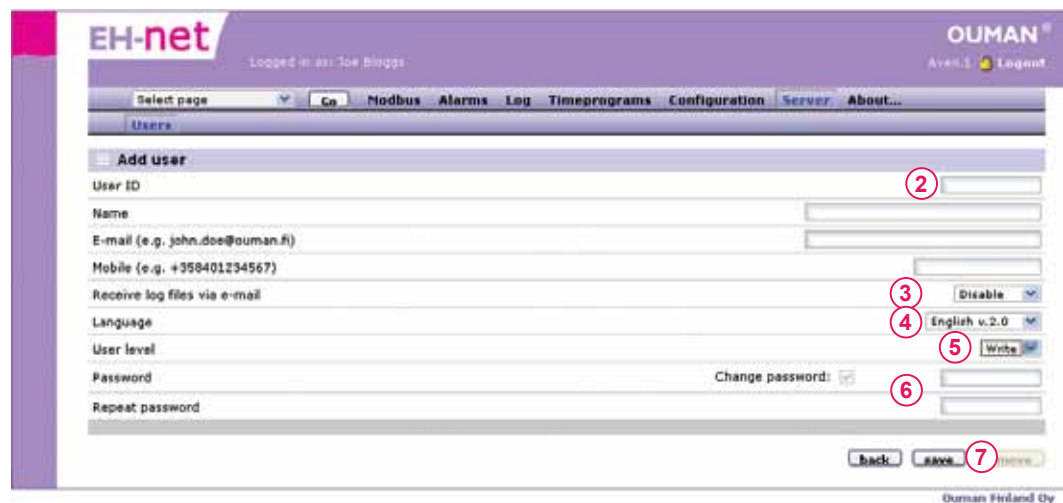
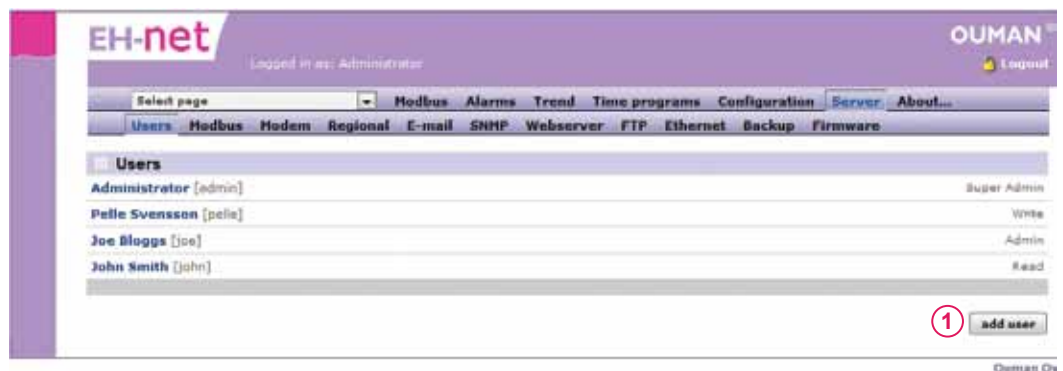
- Super administrator** = all rights
- Administrator** = the administrator can add users having write and read rights, but cannot change or check other server settings.
- Write** = Access to alarms and time programs as well as Modbus and trend overviews.
- Read** = Only access to page overview, alarms and time programs. Cannot change settings or time programs and cannot acknowledge alarms.

1. Log in to the system using your super administrator settings

Server → **Users** → **click the "add user" button**



Only the super administrator or administrator can add new passwords.



2. Create a new user ID and specify an e-mail address and phone number to which the alarms received by this user are sent to.
3. Select whether or not the user receives log files via e-mail.
4. Select the user's language.
5. Define the user level: whether the person has super administrator, administrator, write or read rights.
6. Enter the user's password into both fields.
7. Save

Templates

Each device connected to the EH-net must have a template to enable communication with the EH-net. The template tells the EH-net where the desired information from the device can be found. (e.g., if you change a room temperature setting on the EH-net, the template relays the information to the controller). You can save the Ouman EH-200 series, EH-105, EH-60, Ouflex C and Ouman Plus devices templates from Ouman's home pages and load them onto the EH-net. If EH-686 devices (**only in Finland**) are connected to the system, a template has to be created for each device. The template is created using the EH-686 Manager program's template translator. The created template is loaded onto the EH-net server manually.

If other than Ouman devices are connected to the EH-net, you must create templates for those devices. This can be done using the EH-net template translator.



Configuration → Templates

	Name	edit	restore	backup	delete
1	Network statistics	edit	restore	backup	delete
2	Broadcast registers	edit	restore	backup	delete
3	20120906_EH-203_v3.0_utf-8_fin	edit	restore	backup	delete
4	20120831_EH-105_v3.0_utf-8_fin	edit	restore	backup	delete
5	Ouflex:	edit	restore	backup	delete

Check for new templates (1) (2) upload template new template

1. Click "Check for new templates" to find templates for Ouman devices.
2. Save the selected template on your computer and load the template onto the EH-net.
3. Click the "restore" button to update previously saved templates.
4. Do not change templates for Ouman devices in any way except renaming information.

If other than Ouman devices are connected to the EH-net, you must create templates for those devices. The template is created with the template editor. You can enter the editor by clicking "create new". With the editor it is possible to create different groups in the template (e.g. measurements, set values) and desired points in them (e.g. outdoor temperature measurement, room temperature set value). The finished templates can be loaded to the computer. Note! In order for the template creation to be successful, you need information concerning the Modbus interface of the device.

Pages/creating pages

The pages display information from the devices connected to the system, for example, measurement and contact information as well as settings. There can be 30 pages. The pages having an overview are for all user groups and the pages having an advanced overview are for super administrators and administrators. You can place the settings that are more rarely used in the advanced overview. Created pages are displayed in the "Select page" pull-down menu.

An example of a completed page.

! Load the easy to use Ouman EH-net Process Designer program from www.ouman.net/ehnetohjelmat. and make a diagram for your page.

! You can set a background picture for the page, e.g., a diagram of the process connected to the EH-net system. The diagram can easily be obtained from CAD program using a "print screen" function. Change the diagram to the proper format (gif, png or jpg, (max. width 870 px and max. size 100 kt)! The total size of the diagrams cannot exceed 1024 kt.

Description	Value	Description	Value
TE0 Outdoor temperature	0.0	Damper control [%]	0
TE01 Supply air temperature	19.4	HRU control [%]	0
TE02 Room temperature	22.9	Heating control [%]	0

Adding new pages:



Configuration → **Pages** → **Click the "add page" button**

	Description	Device	Point		
1	TE0 Outdoor temperature	EH-105	Outdoor temperature	edit	clear
2	TE01 Supply air temperature	EH-105	Supply air temperature	edit	clear
3	TE02 Room temperature	EH-105	Room temperature	edit	clear

1. You can freely name the page and save. The name of the page is displayed in this field.
2. You can name the overview and advanced overview.
3. Click browse to select a background diagram from your PC.
4. Load the diagram. When the diagram is loaded it appears in miniature on the left side of the page.
5. Save settings.
6. New pages are displayed in the pull-down menu.

Editing pages

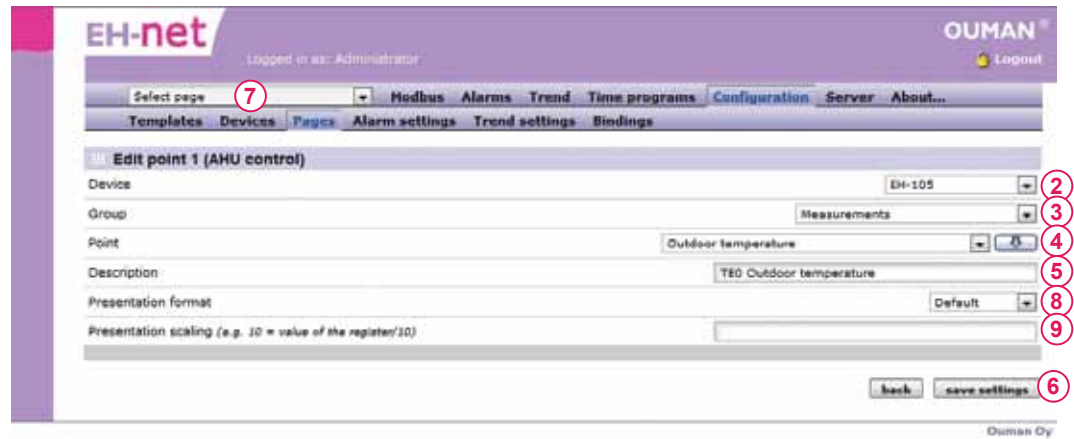
Displaying new information in a field



Configuration → **Pages**



1. Click the “edit” button on the page. The rows are empty if no information has been added to them.



2. Next, select the device whose information you want displayed in the row.
3. The item “Group” is information from the selected device divided into groups. Select the group you want.
4. The item “Point” contains information from the above mentioned group. Select the point you want.
5. The field description can be freely named. You can also transfer the name of the original information by clicking the arrow button from the previous item.
6. Save the row you have created.
7. When you go to the page, where you just added a row to, the information you added appears now on that page. Select the page from the pull-down menu .
8. The presentation format for Ouman devices is a default. If you are also interested in knowing the binary value or hexadecimal, add the same information two/three times to the row and select the default format for the first row, binary for the second and hexadecimal for the third.
9. Scaling can only be used when default has been selected for the display format. Scaling can be used to change the scale. For example, if the energy consumption information from the device is in kWh’s and you want to receive the information in MWh’s, set the numerical value for scaling at 1000. If the device gives you the information in MWh’s and you want it the information in kWh’s, set the numerical value for scaling at 0.001.

Bindings

With the help of the EH-net you can create measurement and status information transfers via the bus to other devices connected to the bus. There can be a maximum of 32 bindings.

In Broadcast transmissions measurement information from a certain Modbus register is sent simultaneously to all devices connected to the bus. EH-net has outdoor temperature, emergency-stop-switch, main pump running information and heating network water pressure switch that can be selected for Broadcast transmissions.

Adding bindings



Configuration → **Bindings** → **click the "add bindings" button**

1. Select the device from which the information is to be transferred.
2. Select the binding group and information to be transferred.
3. Select the device to which the binding information is to be transferred.
4. Select bus measurements for the destination group and then select the point you need.
5. You can select the time period for the transfer from the pull-down menu.
6. Save settings.

	Device	Group	Point	
1	Source EH-105	Measurements	Outdoor temperature	edit delete
	Destination Broadcast	Default registers	Outdoor temperature	

Trend settings

You can create a maximum of 10 trend groups and make group-based settings as to what percentage each group can use of the trend storage space. There is about 2 Mb of trend storage space in use. You can also set an individual sampling interval for each group. Logging information can also be saved on a computer's hard drive in an Excel table as a CSV file so it can be inspected later. Log files can also be sent via e-mail and to an FTP server. The log interval is the same for them all. Measurement history information can be used e.g., to monitor a facility's energy and water consumption.

Adding trend points:

Settings → Trend settings

The top screenshot shows the 'Trend settings' page. It includes a 'Trend group' section with a dropdown menu (1). Below it is the 'Trend group settings' section with fields for 'Disk space to use (%)' (9), 'Estimated logging time' (208 days), 'Trend interval' (60 min) (10), 'Trend type' (Circular saving) (11), and 'Send trend interval' (Disable) (11). There are also buttons for 'Send trend files with E-mail' and 'Upload trend files with FTP to ...'. At the bottom of this section are 'start', 'stop', and 'save settings' buttons (12). Below this is a table of 'Trend points' with columns for Point, Device, and buttons for 'add' and 'delete'.

The bottom screenshot shows the 'Edit trend point' page. It has fields for 'Device' (EH-108) (3), 'Group' (Measurements) (4), 'Point' (Supply air temperature) (5), 'Delta logging' (Disable) (6), and 'Name of the point' (Supply air temperature) (7). At the bottom are 'back' and 'save settings' buttons (8).

! If you want a more detailed log file and want to illustrate collected information, load the Ouman Trend and Report Manager programs from www.ouman.fi/ehnetohjelmat. With the Report manager you can get daily, weekly and monthly reports, e.g., about water and energy consumption.

! When you add a new trend point you must first stop trend collection. When you do this old log information will be deleted. You can save old trend files before stopping. Restart trend collection after adding a new point.

1. Select the trend group to which you want to add a trend point
2. Add trend points belonging to this trend group. Click the "add trend point" button.
3. Select the device from which you want to collect measurement history.
4. Select the group that has the information you want.
5. Select point from the pull-down menu and click the arrow button to add points.
6. If the "Delta logging" is enabled, the information about changes in the measurement value between sequential measurements is saved to the trend. For example, if the first measurement is 10 and the other is 7, the saved data is -3.
7. You can change name of the point.
8. Save the settings. Repeat numbers 2-8, until all points desired for this trend group have been added to the trend group.
9. Make group settings. Set, how much of the trend storage space in use can be used by this trend group. If you have two trend groups in use and you want to divide the storage space equally, give both trend groups 50% of the storage space.
10. Set also the sampling interval and select the trend collection mode.
11. Select, if the trend file is sent forward automatically. If the trend file is sent to an e-mail or FTP server, select when the file is to be sent. If you select weekly, the file is sent on Sunday, at 00.00. If you select daily, the file is sent every day at 00.00. The log file can be sent to an e-mail or FTP server only if you have done the email settings and FTP settings. The file is sent to all users who have the "receiving trend file to email" function in use.
12. Press the "Start" button.

Alarm settings

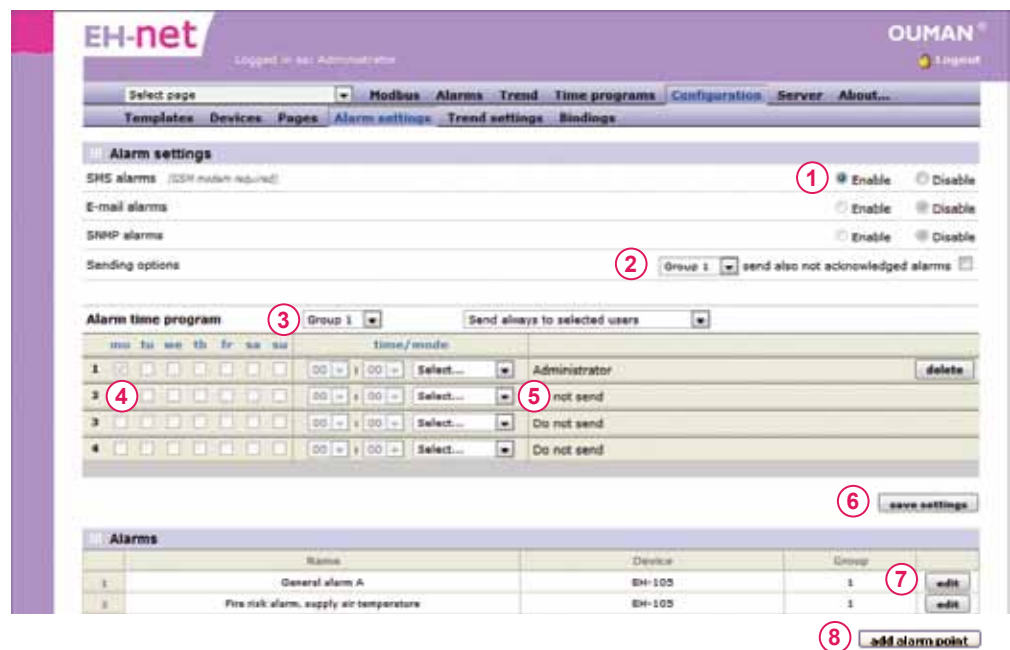
! The more alarms brought to EH-net the more EH-net becomes loaded. Always make sure that EH-net is working.

EH-net makes it possible for alarms to be sent by e-mail or via text message to a GSM phone (requires a GSM modem). In addition, alarms can be transmitted to another system as an SNMP.

Alarms are divided into ten alarm groups. The alarm groups are used when alarms are routing. A time program can be made for each alarm group (1-10) so that alarms can be transmitted to designated users. (E.g., during office hours alarms are transmitted to users A and B, but at other times the alarms are not transmitted at all.) If the time program does not let the alarm be routed when it is activated, it is sent as soon as the time program permits it to be sent if it has not been acknowledged. (e.g., if the alarm is sent only during office hours and the alarm is activated on Thursday at 7 p.m., it is sent to the user on Friday at 8 a.m. Alarms can be easily designated to be sent to selected persons. All activated alarms always come to the EH-net user interface regardless of the state of the time program and they can be acknowledged there at any time.

Sending alarms from the EH-net:

Configuration → Alarm settings



! SNMP alarms are always transmitted regardless of the state of the time program

1. Alarms can be transmitted as a text message (requires a GSM modem), e-mail or an SNMP. A GSM number and e-mail address is given to each user personally. (**Server -> Users**). SNMP settings can be found under the SNMP menu (Server -> SNMP, see configuration and administration manual p. 20). If, for example, SNMP settings have not been determined
2. Alarms from a certain alarm group can be designated to be sent whenever they are activated whether or not they have been acknowledged. Select the group from the pull-down menu and put a check at the group whose alarms you want transmitted whenever they are activated.
3. A time program can be made for each alarm group so that the alarm is transmitted to the designated users. Select the alarm group for which to make the time program.
4. Select the day(s) of the week and time after which alarms are/are not transmitted to designated users. If you do not want to create a time program but want to always send alarms, select "Send always to selected persons" (weekday and time fields become non-active).
5. Select to whom alarm information is sent during connection. If the user has not been given a GSM number and SMS alarms are in use, the user does not appear in the menu. Users are added and information is edited in server settings. (**Server -> Users**).
6. Save settings.
7. All alarms brought to the EH-net appear in the alarms section. Click the Edit button to edit alarms. If the alarm group does not have defined routing (the alarms in the group are not transmitted as SNMP or e-mail) (see see configuration and administration manual p. 26).
8. Instructions for adding an alarm point on the next page.

Programmed alarm

When adding a new alarm to EH-net, click once to bring all the alarms on the page of the device in question to the EH-net to select which group the alarms belong to. You can also make new programmed alarms by designating new alarm points in the EH-net.

Adding programmed alarm points.

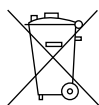


Settings → **Alarm settings** → **click the "Add alarm point" button**

! Do not use programmed alarms in place of alarms for Ouman devices

! When you create programmed alarms you can select any group.

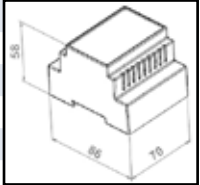
1. Select from which device you want the alarm brought.
2. Select from which group you want the programmed alarm.
3. Select the setting for which you want to make the programmed alarm.
4. Set activation conditions.
5. Set the alarm delay in minutes. Alarm information will be transmitted after the delay. A precise delay depends on the size of the system.
6. Select to which alarm group the alarm belongs.
7. Specify the urgency of the alarm with an SNMP transmission. If the alarm is sent via e-mail or to a GSM phone, disregard the above.
8. Enter the name of the alarm under "Name" (the alarm point you selected being the default). The contents of the "Subject/heading" field will become the subject in the e-mail and will appear in the beginning of the message in a text message alarm (the device giving off the alarm is the default).
9. Enter the alarm message text in the "message" spot. If there is no text in the field, the default text of the template will appear in the alarm message. Note! The message cannot be very long (the text message can only have a max. of 160 characters).
10. Click the "save settings" button at the end.



Product disposal:

The enclosed marking on the additional material of the product indicates that this product must not be disposed of together with household waste at the end of its life span. The product must be processed separately from other waste to prevent damage caused by uncontrolled waste disposal to the environment and the health of fellow human beings. The users must contact the retailer responsible for having sold the product, the supplier or a local environmental authority, who will provide additional information on safe recycling opportunities of the product. This product must not be disposed of together with other commercial waste.

Technical information

Casing:	PC UL94-VD (self-extinguishing)	
Attachment:	DIN-rail	
Measurements (mm):	width 70 mm, height 58 mm, depth 86 mm	
Weight:	110g	
Operating temperature:	0...+60°C	
Storing temperature:	-25...+75°C	
Moisture limits:	5-93% relative moisture	
Protection class:	IP20	
Ethernet interface:	10/100 Mbs Ethernet-interface (RJ-45)	
Serial interfaces:	DSUB-9 serial interface (RS232), (2400 – 115 200bps) Modbus interface (RS-485), (2400 – 115 200bps)	
Electrical connection:	9-32 VDC/1.7W or 24 VAC/4VA	
Ethernet protocols:	Modbus TCP, HTTP, SMTP and SNMP	
Approvals:		
-interference tolerance	EN 61000-6-2	
-interference emissions	EN 50081-2	
Equipment requirements for a pc:	Pentium 133 MHz or more powerful 5Mb of free hard disc space Windows98 and Windows7/ME/2000/XP/Vista operating system Network card Internet Explorer 8.0 (or newer) or Mozilla Firefox 3.0 (or newer) + Java plug in	
Requirements for devices connected to the system:	EH-686: Program version 2.4.6 or newer EH-60: Program version 2.4.6 or newer EH-105: Program version 1.60 or newer EH-203: Program version 1.45 or newer EH-201/L: Program version 1.45 or newer EH-201/V: program version 1.27 or newer Ouman Plus Ouflex Ouflex C with Oulink Third party equipment: Modbus devices having templates.	
System dependence	Connected to Ounet Modbus TCP/IP support	
Warranty:	2 years	
Manufacturer:	Ouman Oy, Voimatie 6 FIN-90440 KEMPELE Tel. +358 424 8401, Fax: +358 8 815 5060	

We reserve the rights to make technical changes.