

EH-net

**TAKE CARE OF
YOUR FACILITY
VIA THE INTERNET!**

MODBUS®

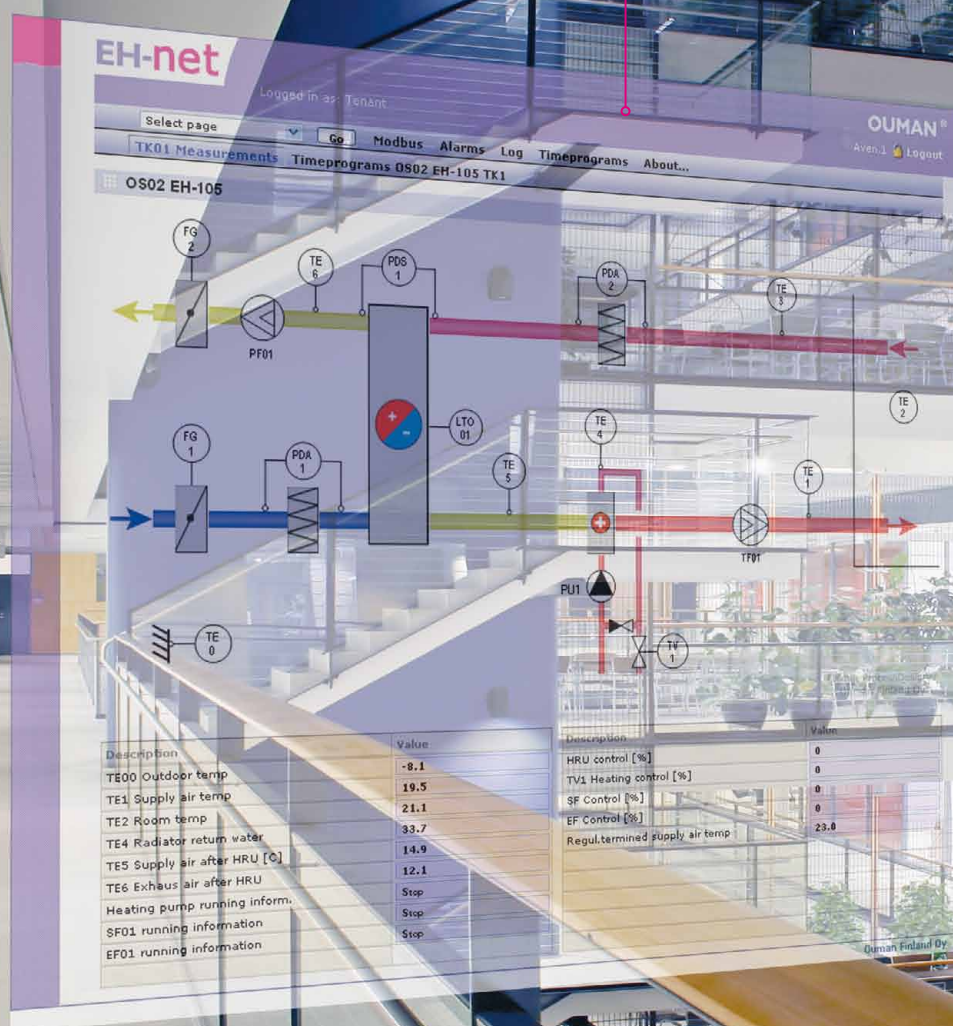


- Facts for caretakers
- A help for maintenance firms
- Comfort for residents
- Benefits for the environment

OUMAN®

EH-net saves time, money and the environment

We developed EH-net with the idea of increasing levels of comfort and safety and minimizing expenses. Maintenance calls and inspection trips can add up and become costly – and involve a lot of running around! Our product saves legs, time and fuel. It helps you monitor and control heating, ventilation, yard lights, door locks, a sauna and other building automation via the internet from wherever you happen to be.



What is EH-net?

EH-net is a server which makes it possible to remotely operate Ouman control devices and systems using an internet browser. Ouman products that can be connected to the EH-net operate independently even after they are connected. Devices are connected through the Modbus. Other manufacturer's Modbus devices can also be connected to EH-net.



An installed EH-net server. The small and compact server can be easily connected to a DIN-rail.

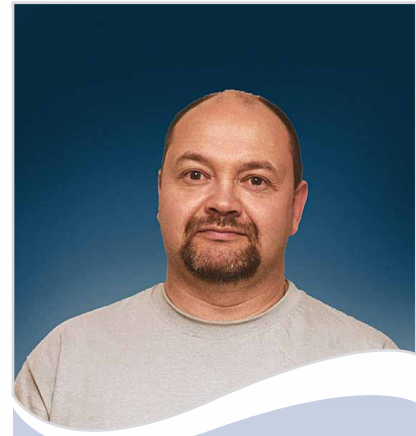


Locations

- apartment houses and row houses
- schools, day care centres
- business premises, industrial halls
- homes, farms, vacation homes
- other automatic processes you want centrally monitored

Typical users

- caretakers
- maintenance
- building automation firms
- on duty personnel
- private individuals



Lahden Talot / Hämeen Kiinteistöautomaatio Oy

Jari Niemelä from Hämeen Kiinteistöautomaatio (building automation) says: "I'm pretty picky about the people I work with. I highly value Ouman's integrity. They stand behind their word and carry responsibility in even tough situations. Ouman's technical support earns special mention."

Jari has been a pioneer in using Ouman GSM-Control technology. He has set up 74 locations for Lahden Talot that use a mobile phone for remote control and monitoring.

Lahden Talot now has 23 locations monitored via EH-net. "It has become much easier to control a large number of facilities after we got EH-net and were able to take care of things from our office via the computer. "We are presently setting up 25 more locations.

Lahden Talot is a municipal apartment house rental company with a local network for building automation.

OUMAN®

Wirelessly on the net!

Ouman is a trail blazer in wireless internet technology for building automation. We have productized the necessary connections and information security solutions into a ready to use package. The wireless 3G wideband connection is easy, fast and inexpensive. All connections include network and firewall devices and name service.



Easy to begin using

EH-net can be taken into use as soon as the basic unit is installed, the devices are connected to the Modbus and the data link is activated. Separate, expensive computer programs with additional updating are not needed, all you need is the internet browser. Firefox and Internet explorer are the browsers we recommend.

User groups

EH-net has 4 user levels having different user rights.

Ready to use!

Ouman's ready to use package includes all necessary devices and an activated connection. Just plug in the devices and you can start using it.

Safely!

With expanded SEC2 information security you can have a secret connection and the possibility of better remote control and information security.

Inexpensive!

Compared to a fixed connection the wireless 3G wideband is considerably less expensive. The name service in Ouman's ready to use package makes it possible to use a changing IP address, so you do not need the more expensive connection with a permanent IP address. You can save tens of euros a month (currently only in Finland, please check availability outside Finland).

Fixed line connections

We recommend a fixed line wideband connection when you want to use the connection for other internet use. The connection includes network and firewall devices and a name server.

When EH-net is equipped with a 3G connection it also works in a regular GSM network at GPRS connection speed!

www.ouman.fi



The EH-net user rights are in four different user levels.



**Olarin huolto,
HK-Säätö Oy**

"EH-net has helped us improve the quality of maintenance and reaction speed because alarms come directly to the right places. New monitoring technology has carried the transparency of maintenance to a whole new level, because board members of apartment house rental companies have been given read rights to their facility's monitoring system. This means that the person paying for maintenance is able to check on the quality of service he has received. This is an important feature for the rental company and helps increase trust both ways. We chose Ouman for its usability on the field level and in remote monitoring. Time programs for saunas are taken care of by the girls in the office via EH-net. We are satisfied with the services of our local Ouman representative, HK-säättö, relates Olari maintenance's technical caretaker Christoffer Finnberg.

"We have jumped from the old DOS based area monitoring system directly to newer, wireless browser based monitoring. We no longer have to pay telephone bills (30-50€/month) when we have 3G so monitoring expenses will drop considerably", says HK-Säästö managing director Kari Malinen.



Location to be monitored



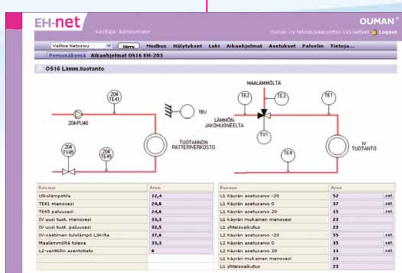
HUMAN control devices and systems, max 30 pieces



EH-net



OUMAN name service
and data security
(at the moment only in Finland)



Graphic user interface is descriptive and clear



Laitila city

Maintenance man Kristian Sukarilla has much experience in working with Ouman. Ouman devices and know-how have been utilized, for example, to remotely monitor village schools, to set up an alarm system for an old-age home, monitor sewage pumping stations, and control ventilation and heating in a city hall. Etnet has made it possible to take care of things remotely and avoid many unnecessary trips. With the help of Etnet, all facilities are "in plain sight" says Kristian Sukari when he summarizes Etnet's benefits.



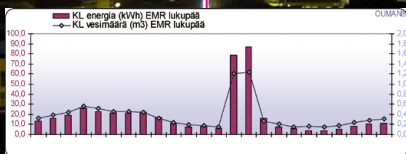
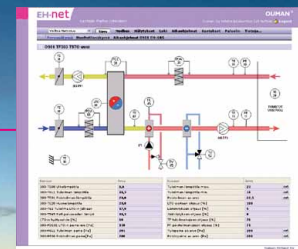
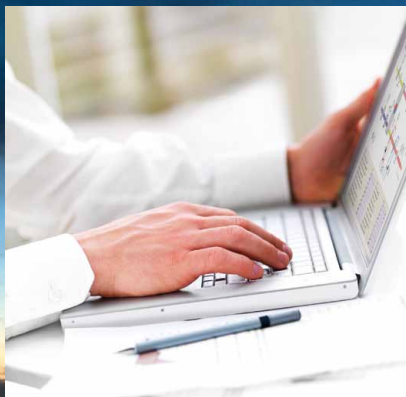
**Become familiar with
and test it**

You can become familiar with the EH-net system in a realistic environment at <http://ehnetdemo.ouman.net:50300>. The write rights user ID is "write" and the password is "guest".

OU MAN®

"Informs you immediately and remembers everything"

EH-net monitors tirelessly day and night, enters user history and displays the facility's situation in real time. Maintenance personnel can check, for example, a facility's temperature levels and change settings and time programs of functions quickly and easily directly via the net.



Alarms

A key to keeping a facility well maintained is reacting quickly to problem situations. Alarms can be grouped into different types and sent by time program to different people. For example, heating system alarms can be sent to maintenance men, energy and water consumption deviation alarms to maintenance men as well as to a caretaker.

EH-net transmits alarms from devices connected to it to e-mail and GSM phones (requires a GSM modem). Alarms can be acknowledged and alarm history can be checked via the EH-net user interface, where you can also construct programmed alarms from measurement information with limits that can be freely set.



EH-net can send time programmed alarms to different users.



"Koy Maston Aitio has 52 rental units whose heating is centrally controlled by EH-net. Especially during quiet times the significance of remote control and monitoring is emphasized. The heat in the units can be kept at a reduced level and turned up to a normal level when a customer rents it. Decreases and increases in room temperatures can be followed via EH-net using a graphic trend program. Temperature control at the right time means considerable savings for the owners of cabins and rental units", says Tuotto Omistus Oy's Mikko Hänninen who is in charge of facilities.

TuottoOmistus OY takes care of maintenance, upkeep and rental of vacation units at Ruka.

Log

EH-net gathers information from devices connected to it. Logging can be used to check measurement history as a list and graphically. The graphic trend makes it possible for you to monitor the interaction of a number of variables. Measurement history information can be used to monitor, for example, domestic hot water

consumption or district heating energy. The graphs can be attached, for example, to a facility's consumption report.



Graphic measurement history is clear and even small changes in measurement values are easy to notice.

Checking and changing settings

EH-net makes it possible for you to remotely check and change settings of devices you are controlling. For example, heating curves, ventilation control settings, opening/locking doors, or sauna controls can be easily taken care of using an internet browser.

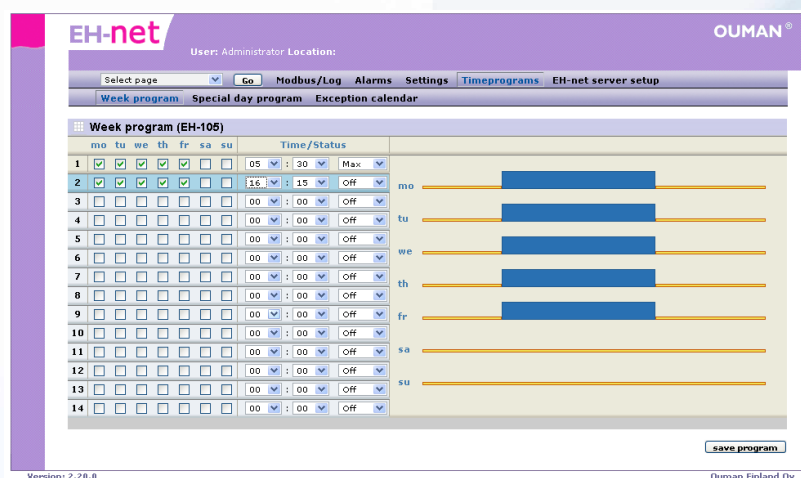
Time programs

EH-net makes it possible to remotely control time programs of all the devices connected to it. The calendar function is clear and helps you easily control complicated time programs. Also exceptional time programs caused by vacations can be easily controlled.



Jorma Piisinen

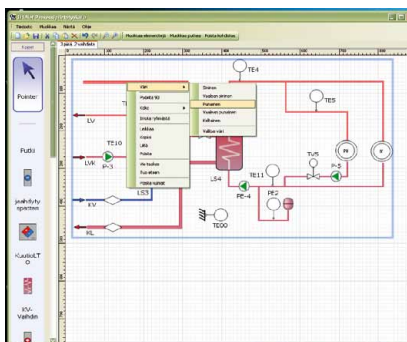
I have an exceptional smart house solution with Ouman controlling a ground heating pump and an 80 kW reverse combustion boiler as well as three accumulators in a smart way. When I am not home the house is heated by ground heat. When at home I throw logs in the boiler and the accumulators are automatically charged in the most economical way. I don't have to figure out how a bunch of circulation pumps and valves work. And with the help of EH-net the whole system is on the internet and can be monitored at any time and from any place!



The time program's clear, graphic form makes it easy to use.

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EH-net support programs



EH-net Draw program

With this program our authorized representative can compile personal, descriptive process diagrams on EH-net. You can load diagrams for standard processes from our home pages.

OUMAN®

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Find the closest authorized area representative.

www.ouman.fi

Dealer:

EH-net

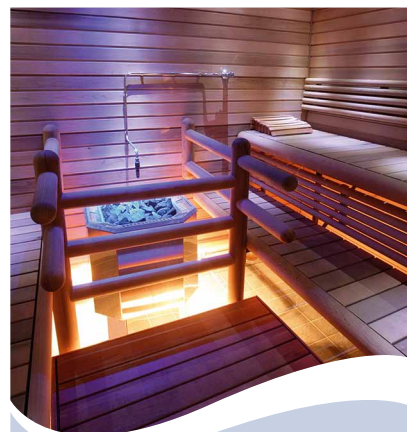
Osoitehakemisto

Kohteet (6):

[As Oy Kotikartano](#)
[As Oy Kotikolo](#)
[As Oy Pesätiementorni](#)
[Koy Ketokuja 6](#)
[Markun koti](#)
[Markun mökki](#)

EH-net address directory

With this program you can move to different locations using the name menu and you do not have to remember the whole internet address.



helo
genuine sauna & steam

Helo Oy has been the first Finnish sauna stove manufacturer to develop a Modbus compatible sauna stove control system. Smart sauna stoves can be connected through the Modbus to the EH-net user interface together with other house technical systems.

With the help of EH-net and data communications connections, control and monitoring of sauna stoves rises to a new level. Necessary control commands and monitoring can occur centrally via an internet browser whereas alarms and information is automatically directed to the correct person via the EH-net. For example, via the EH-net you can check how Helo saunas are warming up, check their moisture levels and energy consumption and of course change sauna turns easily and quickly.

Technical information

| | |
|--|---|
| Casing, attachment | PC UL94-V0 (self-extinguishing), DIN-rail |
| Measurements, weight | width 70 mm, height 58 mm, depth 86 mm, 110 g |
| Operating temperature | 0 ... +60°C |
| Storing temperature | -25 ... +75°C |
| Protection class | IP20 (5–93% relative moisture) |
| Ethernet interface | 10/100 Mbs Ethernet-connection (RJ-45) |
| Serial interfaces | - DSUB-9 serial interface (RS-232), (2400–115 200 bps) - RJ-12 serial interface (RS-485), (2400–115 200 bps) |
| Electrical connection | 9–32 VDC/1,7W or 24VAC/4Va |
| Ethernet protocols | Modbus TCP, HTTP and SMTP |
| Approvals | |
| - interference tolerance | EN 61000–6–2 |
| - /interference emissions | EN 50081–2 |
| Equipment requirements | EH-net: Pentium min. 133 Mhz, 5 Mb of free hard disc space, Internet Explorer 6.0 / Mozilla Firefox 2.0 or newer. Support programs: Windows 98 / ME / 2000 / XP / Vista - operating system, network card + Java-extension (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 |
| Warranty | 2 years |
| Manufacturer | Ouman Oy, Kempele, FINLAND |