OUMAN S203

Heating controller for three circuits

- 2 heating circuit control
- 1 domestic hot water control

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Advanced heating controller
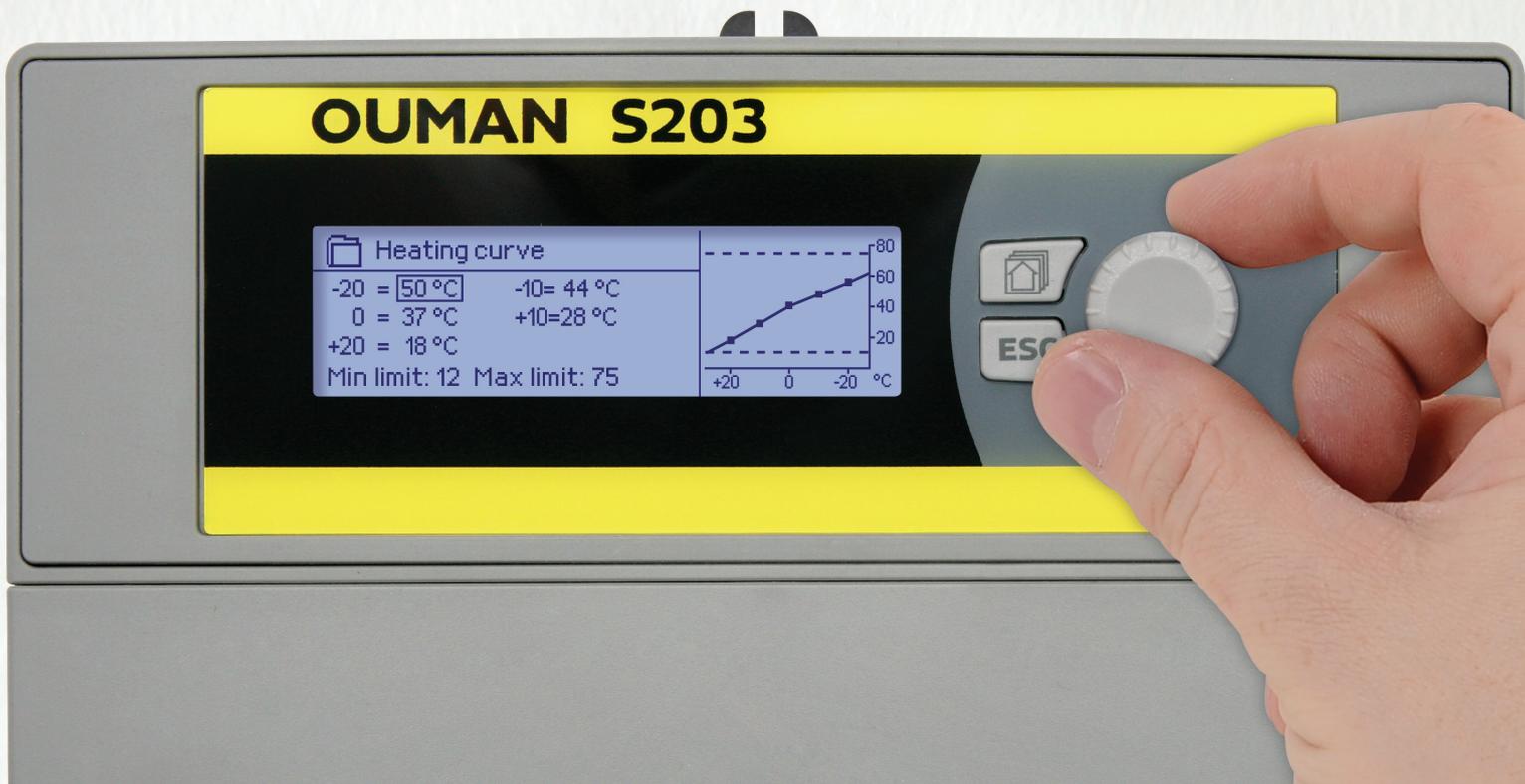
OUMAN S203

Ouman S203 is a new generation wall-mounted heating regulator. Its versatility, intelligence and openness make it an ideal heating regulator for all water circulation heating systems. Ouman S203 is really easy to use - informative display panel and GSM Control - feature enable reliable use anytime, anywhere! Ouman S203 can be connected to Ounet-service making the use of the regulator over the internet easy and informative.

Advanced heating regulation technology

Ouman S203 represents a new advanced regulation technology. It has numerous features that improve the regulation and save energy. It also contains many useful automatic functions valued by automation professionals.

Types of heating systems:
- Radiator heating
- Floor heating
- Air conditioning preregulation
- Hot water regulation

Types of heating production:
- District heating exchangers
- Boiler plants
- Accumulators
- District heating substations
- Ground heating systems

Easy to take into use

A preprogrammed installation procedure guides you when you take control circuits into use and helps you to make the most important selections. Based on your selections, S203 proposes you the optimal settings for your configuration. In most cases the settings are suitable as such and you do not need to make further changes.

A graphic trend display makes tuning easier

Ouman S203 displays trends in supply water temperature changes graphically, so the regulation process is easier to perceive. The trend display especially makes tuning easier for the installer of the regulator.

Remote use:

- Mobile control
  requires a GSM modem (optional) to connect to control.

- EH-net
  Local web server to remote control and supervision (optional).

- Online monitoring Ounet
  Internet-based on-line control room (additional) professional remote control and monitoring.

www.ouman.fi

Saving energy, creating comfort

Informative heating curve

In order to have good heating regulation you need a right kind of regulation curve. You can select to use either a 5 point or 3 point regulation curve. The regulator prevents the usage of wrong kind of regulation curve when you use 3 point regulation curve. In this way an optimal heating regulation is guaranteed.

Takes into account differences in facilities

An outdoor temperature measurement delaying function takes into account the structural differences between the properties. During quick outdoor temperature changes, the regulator does not change the temperature of the supply water at the same pace, but instead, functions according to an average that it has measured for a longer period of time.

Two separate control circuits for heating

With S203 it is possible to control two separate heating control circuits independently. This means better energy efficiency and increased living comfort as well as protection of structures.

Control of domestic hot water

Ouman S203 has a highly developed domestic hot water saver algorithm, which guarantees you an enjoyable shower even under difficult regulating conditions. Anticipatory regulating and a quick run function improve regulation in situations when consumption changes quickly.

Easy to install

S203 is designed to be installed in many environments. Due to its compact size installation location is easy to find, so it is good for renovation purposes as well.

The controller can also be installed directly eg. in district heating substation. The large connection space makes the cable connection easy to install, and thus accelerates the connection and commissioning.

Versatile alarm functions

Internal alarms
- Sensor fault
- Danger of overheating
- Deviation alarm
- Danger of freezing
External alarms
- Network pressure alarm
- Alarm information about the pump's running mode
- Alarm information about the pump's overcurrent protection

Versatile measurements and digital inputs

- Configurable and fixed universal inputs and pulse inputs
- Measurement data can also be read from the channel

Circulation pump controls

- Summertime pump stop
- Manual control ON/OFF

The autumn drying function

The autumn drying function raises the supply water temperature for a certain period of time in the autumn. This decreases building dampness so it doesn't feel as chilly as it often does at the end of the summer.

Easy to update

it is quick and easy to update the controller software. It can be updated by using the SD memory card.

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For all size of facilities

Ouman S203 can be used in all kinds of facilities with central water heating from small buildings to large plants. S203 is open to different types of remote monitoring solutions. Facility heating can now be monitored and controlled from the display of a GSM-phone, PC, and from the regulator. Alarm messages can be received as text message into a GSM-phone.

Ounet

Quite large Ouman building automation systems can be easily controlled and monitored remotely using a web browser. To use a browser you must have a OULINK ETH adapter, Ounet account as well as a functioning network solution and sufficient data security.

Other monitoring systems

The S203 controller can be connected to other monitoring systems using a Modbus.

GSM control

When a GSM modem is connected to the controller, a GSM telephone can be used to communicate with the controller via text messages. Also alarms can be sent to five different numbers and can be reset by a text message.

Technical information

Dimensions	width 230 mm, height 160 mm, depth 60 mm
Weight	1.3 kg
Protection class	IP 41
Operating temperature	0 °C...+50 °C
Storing temperature	-20 °C...+70 °C

Power supply L (91), N (92)
- Operating voltage .... 230 Vac / 200 mA
- The internal 24 V power source, total load capacity of max. 1 A/23 VA
- Front fuse .... max 10A

Measurements inputs:
- Sensor measurements (11-26) ...... Measurement channel accuracy:
  - NTC10-element: ±0,1 °C between -50 °C...+100 °C, ±0,25 °C between +100 °C...+130 °C
  Also sensor tolerances and the effect of cables must be considered when calculating total accuracy.
- Milliampere signal (inputs 22-24) .. 0 - 20 mA current message, meas. accuracy 0.1 mA
- Voltage measurement (inputs 14,17, 22-24) 0-10 V voltage message, meas. accuracy 50 mV
- Digital inputs (20-28) .... Contact voltage 15 Vdc (inputs 27 and 28), contact voltage 5 Vdc (inputs 25 and 26). Switching current 1.5 mA (inputs 27 ja 28), switching current 0,5 mA (inputs 25 and 26). Transfer resistance max. 500 Ω (closed), min. 11 k Ω (open).

Counter inputs (27-28) .... Minimum pulse length 30 ms.

Analog outputs
(53,54,64,66,68,70) .... Output voltage range 0...10 V
Output current max. 10 mA / output

15 VDC voltage output (1) .... 15 VDC output maximum load 100 mA

24 VAC voltage outputs (51,52) .... Output current max 1 A /output
Without external transformer outputs total load capacity of max. 23 VA continuously

Triac outputs (55-60) .... 24 Vac. Triac-outputs as a pairs (55, 56), (57, 58) and (59, 60). Each pairs total current max. 1A.
Without external transformer the total continuous load capacity of triac-outputs and 24 VAC outputs is 23 VA

Data transfer connections
- RS-485 bus (3 and 6), (A and B) ... Galvanically isolated, supported protocols Modbus-RTU

Options
- OULINK .... OULINK provides Modbus TCP / IP interface for S203 device.
- GSMMOD5 .... By connecting the GSM modem to the S203 , you can communicate with the text messages to device and receive alarms to GSM phone.

APPROVALS
- EMC-directive 2014/30/EU, 93/68/EEC
- Interference tolerance .... EN 61000-6-1
- Interference emissions .... EN 61000-6-3

CE

QUALITY SYSTEM CERTIFICATION
DNV·GL
ISO 9001

More than a heating controller

Versatile measurements
- Outdoor temperature
- H1 supply water temperature
- H1 room temperature
- H1 return water temperature
- H2 supply water temperature
- H2 return water temperature
- H2 room temperature
- Network pressure
- DHW anticipation temperature
- DHW supply water temperature
- DH Supply water temperature
- DH Return water temperature
- General measurement

Digital inputs (on/off) , e.g.:
- Information about the pump's running mode
- Alarm information about overload protection

Pulse measurement input:
- Water volume
- Energy measurement

Net connections
- Modbus RTU (connectors 3 and 6, A and B)
- By using Oulink Modbus TCP/IP connection is available

Selecting the curve type and parallel shift
- 5 point curve
- 3 point curve

Actuator control
- 2 pcs 3-point controlled 24VAC
- 6 pcs voltage controlled (0 ... 10V)
Attention! Voltage controlled 0...10V actuators can be connected to cascade control (2 pcs / circuit)

Alarm relay (Triac 2, if H2 actuator is not 3-point controlled)

Additional control panel
- Max. 20 m , e.g. CAT 5 cable (optional)

Trend log can be saved to the memory card

Language versions are integrated to the controller

Possibility to use external 24 VAC transformer

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