

OUMAN H23

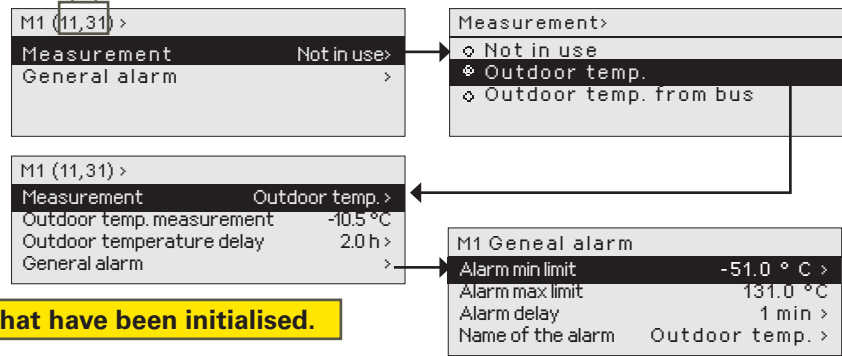
CONFIGURATION

Configuration	
--- CONTROL CIRCUITS -----	
H1 Control circuit	In use >
H2 Control circuit	In use >
DHW Control circuit	In use >
----- INPUTS -----	
M1 (11,31)	Outdoor temp. measurement >
M2 (12, 32)	H1 Supply water >
M3 (13,33)	H1 Return water >
M4 (14,34)	H1 Room temperature >
M5 (15,35)	H2 Supply water >
M6 (16,36)	H2 Return water >
M7 (17,37)	H2 Room temperature >
M8 (18,38)	DHW Supply water >
M9 (19,39)	DHW Circulation water >
DI 1 (27,47)	Home/Away switch >
DI 2 (28,48)	Alarm - Normally open >
----- OUTPUTS -----	
H1 Actuator	3-point >
H2 Actuator	3-point >
DHW Actuator	0-10V >
H1 Pump control	Not in use >
H2 Pump control	Not in use >
DHW Pump control	Not in use >
Sum alarm	TR2 >

If you know the service code, you can access the configuration menu, where you can take control circuits and the individual inputs and outputs into use.

When you take the control circuit into use, the controller will automatically take sensor and actuator into use and makes it possible to take the pump control into use. Heating circuits the default is 3-point controlled actuator and domestic hot water circuit 0-10 V actuators. Each input can be set between the minimum and maximum alarm limits and alarm input delay.

Connection place



☒ Check the functions on the screen that have been initialised.

Configuration selections ->Select inputs

Connecti- on place	Input/ Output	Alternative measurement options	Alarm setting values (factory setting)	Split connectors M/DI
SELECT INPUTS:				
M 1	<input type="checkbox"/> Outdoor temperature <input type="checkbox"/> Outdoor temperature from bus	Outdoor temperature delay 2.0 h (setting range 0...6 h) Manual control option (Inputs and outputs)	Alarm min limit -51°C (-51°C ... 131 °C) Alarm max limit 131°C (-51°C ... 131 °C) Alarm delay 1 min (0...120)	11 31
M 2	<input type="checkbox"/> H1 Supply water		Alarm min limit -51°C (-51°C ... 131 °C) Alarm max limit 131°C (-51°C ... 131 °C) Alarm delay 1 min (0...120)	12 32
M 3	<input type="checkbox"/> H1 Return water	Return water compensation ratio ____ 2.0 (setting range 0...10)	Alarm min limit -51°C (-51°C ... 131 °C) Alarm max limit 131°C (-51°C ... 131 °C) Alarm delay 1 min (0...120)	13 33
M 4	<input type="checkbox"/> H1 Room temperature <input type="checkbox"/> H1 Room temp. from bus <input type="checkbox"/> DH supply water temp.	Room temp. measurement delay 0.5 h (0...6 h) Room compensation ratio 2.0 (0...10)	Alarm min limit -51°C (-51°C ... 131 °C) Alarm max limit 131°C (-51°C ... 131 °C) Alarm delay 1 min (0...120)	14 34
M 5	<input type="checkbox"/> H2 Supply water <input type="checkbox"/> Free meas. (NTC-10)	Name _____	Alarm min limit -51°C (-51°C ... 131 °C) Alarm max limit 131°C (-51°C ... 131 °C) Alarm delay 1 min (0...120)	15 35
M 6	<input type="checkbox"/> H2 Return water <input type="checkbox"/> DHW Supply water (after exchg.) <input type="checkbox"/> Free meas. (NTC-10)	Return water compensation ratio __2.0 (setting range 0...10) Name _____	Alarm min limit -51°C (-51°C ... 131 °C) Alarm max limit 131°C (-51°C ... 131 °C) Alarm delay 1 min (0...120)	16 36
M 7	<input type="checkbox"/> H2 Room temp. <input type="checkbox"/> H2 Room temp. from bus <input type="checkbox"/> DH Return water temp. <input type="checkbox"/> Free meas. (NTC-10)	Room temperature delay ____ 0.5 h (0...6 h) Room compensation ratio__2.0 (0...10) Name _____	Alarm min limit -51°C (-51°C ... 131 °C) Alarm max limit 131°C (-51°C ... 131 °C) Alarm delay 1 min (0...120)	17 37
M 8	<input type="checkbox"/> DHW Supply water		Alarm min limit -51°C (-51°C ... 131 °C) Alarm max limit 131°C (-51°C ... 131 °C) Alarm delay 1 min (0...120)	18 38
M 9	<input type="checkbox"/> DHW Circulation water		Alarm min limit -51°C (-51°C ... 131 °C) Alarm max limit 131°C (-51°C ... 131 °C) Alarm delay 1 min (0...120)	19 39
DI 1	<input type="checkbox"/> Alarm Normally open <input type="checkbox"/> Alarm Normally closed <input type="checkbox"/> Home/Away switch	Name _____	Switch alarm Alarm delay 1 min (0...120)	27 47
DI 2	<input type="checkbox"/> Alarm Normally open <input type="checkbox"/> Alarm Normally closed <input type="checkbox"/> Home/Away switch	Name _____	Switch alarm Alarm delay ____ 1 min (0...120)	28 48

When the inputs are selected, press ESC. Go to "Select outputs" and press OK.

SELECT OUTPUTS:

Configuration selections >	
Language	English >
Select inputs	>
Select outputs	>
Activate configuration	>



Select outputs >	
H1 Actuator	3-point >
H2 Actuator	3-point >
DHW Actuator	0-10V >
H1 Pump control	Not in use >

Configuration selections->Select outputs

OUTPUTS	Alternative options	Setting values factory setting (setting range)	Connection guide	Connection place
<input type="checkbox"/> H1 Actuator	<input type="checkbox"/> 3-point	Running time open ____ 150 s (10...500 s)	H1 3-point control open	57 TR 3+
		Running time closed ____ 150 s (10...500 s)	H1 3-point control closed	67 TR 4-
	<input type="checkbox"/> 0...10 V	Running time ____ 150 s (10...500 s)	H1 Actuator 24VAC	57
	<input type="checkbox"/> 2...10 V		Voltage control (0-10V)	67
	<input type="checkbox"/> 10...0 V			68 Y2
	<input type="checkbox"/> 10...2 V			
<input type="checkbox"/> H2 Actuator	<input type="checkbox"/> 3-point	Running time open ____ 150 s (10...500 s)	H2 3-point control open	59 TR 5+
		Running time closed ____ 150 s (10...500 s)	H2 3-point control closed	69 TR 6-
	<input type="checkbox"/> 0...10 V	Running time ____ 150 s (10...500 s)	H2 Actuator 24VAC	59
	<input type="checkbox"/> 2...10 V		Voltage control (0-10V)	69
	<input type="checkbox"/> 10...0 V			70 Y3
	<input type="checkbox"/> 10...2 V			
<input type="checkbox"/> DHW Actuator	<input type="checkbox"/> 3-point	Running time open ____ 15 s (10...500 s)	DHW 3-point control open	55 TR 1+
		Running time closed ____ 15 s (10...500 s)	DHW 3-point control closed	65 TR 2-
	<input type="checkbox"/> 0...10 V	Running time ____ 15 s (10...500 s)	DHW Actuator 24VAC	55
	<input type="checkbox"/> 2...10 V	Actuator offset (0...15 %)	Voltage control (0-10V)	65
	<input type="checkbox"/> 10...0 V	(Actuator dead zone)		66 Y1
	<input type="checkbox"/> 10...2 V			
<input type="checkbox"/> DHW Pump control		The display shows the pump control mode: on/off. By pressing OK, you can change the pump control to manual control. If the manual control is selected, the hand image appears in the beginning of the line Pump control.		P1/S1 81,82 RE1
<input type="checkbox"/> H1 Pump control				P2/S2 84,85 RE2
<input type="checkbox"/> H2 Pump control				P3/S3 87,88 RE3
<input type="checkbox"/> Sum alarm (24 VAC)	<input type="checkbox"/> TR2			56,65 TR2-
	<input type="checkbox"/> TR4			58,67 TR4-
	<input type="checkbox"/> TR6			60,69 TR6-

When the outputs are selected, press ESC. Go to "Take selections into use" and press OK.

TAKE SELECTIONS INTO USE

Configuration selections ->Take selections into use

Configuration selections >	
Language	Suomi >
Select inputs	>
Select outputs	>
Take selections into use	>

Time	
Enter the hours	
19:44	
hh:mm	

Date	
Enter the date	
Mon 27.06.2016	

13:51 27.06.2016	
Selection >	
Outdoor temp.	19.4°C
H1 Supply water	20.2°C
H2 Supply water	21.8°C
DHW Supply water	58.0°C
	Automatic
	Automatic
	Automatic

The controller takes the selected inputs and outputs into use after you have pressed OK "on the line "Take the selections into use." When the device starts up again, the controller asks you to check the time and date.

It is important that time and date are correct. Alarm information, for instance, shows when an alarm has activated and inactivated. It is highly recommendable to ensure that time and date are correct when you are making time programs with the weekly program or special calendar. The device clock takes daylight savings and leap years into account automatically. The clock has a backup for power outages lasting at least three days. Hours and minutes can be set separately.

Set hours and press OK to accept.
Set minutes and press OK to accept.
Press Esc to exit.

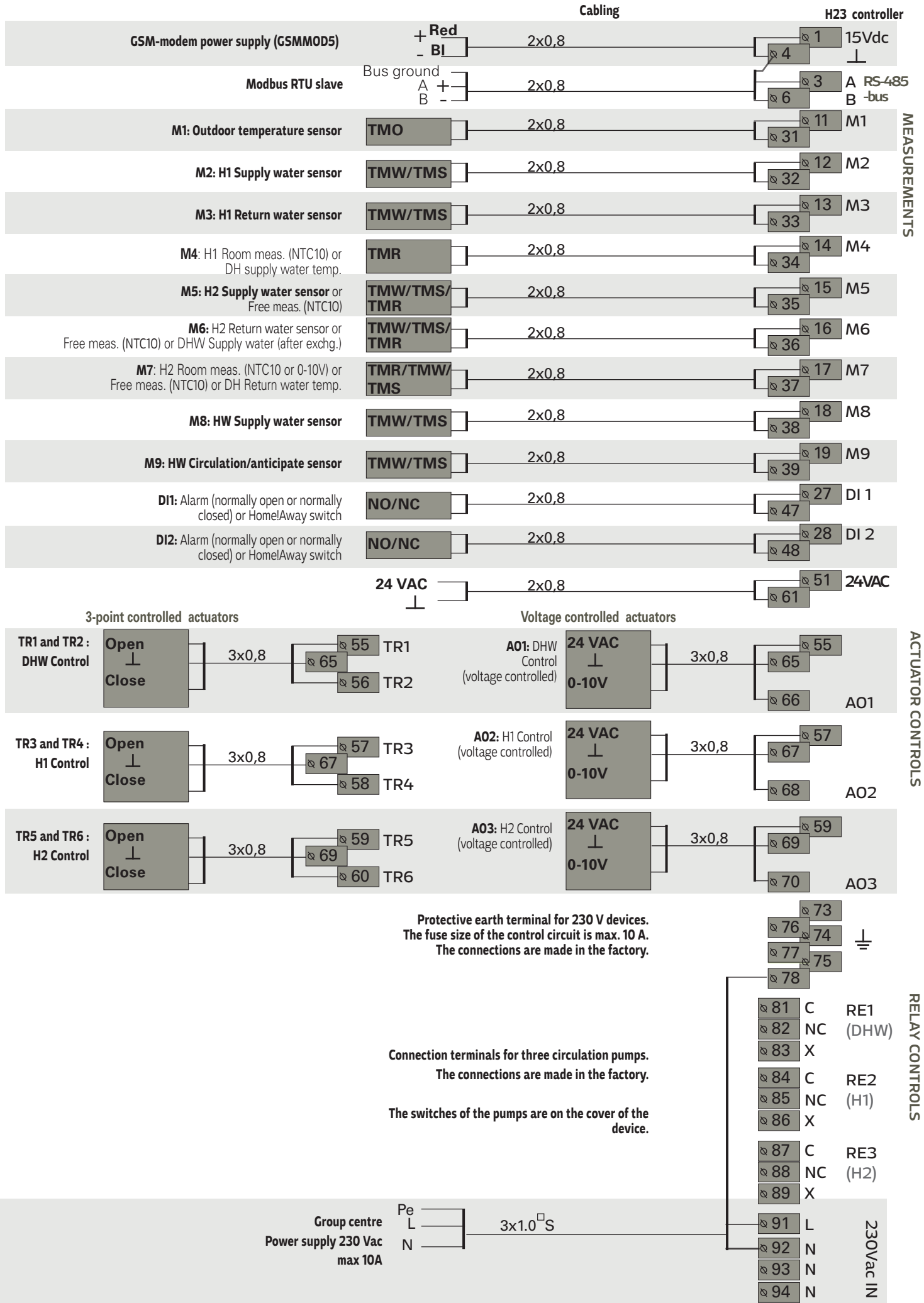
Set day and press OK to accept (name of weekday is updated automatically).
Set month and press OK to accept. Set year and press OK to accept.
Press Esc to exit.

If the controller has any active alarms, they will pop up in the display. Acknowledge each alarm separately by pressing the control knob.

If the controller does not have any active alarms or they have been acknowledged, the controller goes to the basic menu. The controller is now ready for use.

OUMAN H23

Connection guide



H23 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 (92-94)	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
Measurement inputs	
Sensor measurement (inputs 11-19)	Measurement channel accuracy: - NTC10-element: +/-0,15 °C between -50 °C...+100 °C Also sensor tolerances and the effect of cables must be considered when calculating total accuracy. Measurement M1 can be connected also from outside of the casing by a plug-connector.
Digital input (27, 28)	Contact voltage 15 Vdc Switching current 5 mA Transfer resistance max. 250 Ω (closed), min. 350 Ω (open)
Analog outputs	Voltage message (66, 68, 70). Output voltage range 0...10 V. Output current max 10 mA /output
15V output(1)	15 VDC output maximum load 100 mA
24 VAC output (51)	Total current of 24 VAC output and triac-outputs max. 1A.
Pump control (81-89)	Contacts for three circulation pump Pumps are controlled by a switches on the top of the H23 device. Relay max. load 3A.
Protective earth terminal (73-78)	Protective earth terminal block for 230V devices. Control circuit fuse max. 10A
Control outputs (51) Triac (55...60)	24 VAC -control output Total current of triac-outputs and 24 VAC output max. 1A.
Data transfer connections	
RS-485-bus A (3) and B (6)	Unisolated, supported protocols Modbus-RTU
Optional equipments	
OULINK GSMMOD 5	OULINK provides Modbus TCP / IP interface for H23. By connecting the GSM modem to the H23 , 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

Optional equipment connection:

