Document
D5269

Valid from
15.09.2025

Updated
07.08.2025

MyVALLOX
MODBUS
CONFIGURATION

Technical instructions

MyVallox ventilation units can be controlled with building automation systems compatible with Modbus RTU. Up to 32 MyVallox ventilation units can be connected to one Modbus. Controlling the ventilation unit with a building automation system enables the user to, for example, read various sensor data and change the ventilation unit's mode.

GENERAL

All changes implemented through user interfaces can also be done through Modbus RTU. Modbus TCP is not supported.

The data format is always a 16-bit unsigned number, and all the registers contain integers without bit-masked structures.

All the registers are holding registers.

The scaling factor is 1, except for temperatures (cK).

Supported function codes

- Read holding registers, 0x03
- Write one register, 0x06
- Write multiple registers, 0x10

It is prohibited to write in undefined registers. This triggers an error code. This must be taken into account when writing in multiple registers at the same time.

- It is NOT possible to write in registers 20504–20508. Register 20504 is undefined.
- It is possible to write in registers 20505–20508. These registers are defined and they can be written in.

It is prohibited to write in Read-only registers. This triggers an error code.

It is prohibited to enter values outside the permitted range. This triggers an error code.

MODBUS SETTINGS

If the ventilation unit is connected to, for example, a building automation system via Modbus, configure the following Modbus settings:

- Ventilation unit's Modbus address
- Modbus's baud rate
- Modbus parity
- Modbus stop bit

These instructions describe how these settings are configured with a MyVallox Control panel, MyVallox Touch panel or www user interface. These instructions also describe how to configure individual settings, such as the Modbus address.

SWITCHING FROM ONE MODE TO ANOTHER

The ventilation unit has two basic modes: At Home and Away. One of these modes is always selected.

- The basic mode can be read and set in register 4609, 0 = At Home and 1 = Away.

Timed modes

The ventilation unit also has three timed modes: Boost, Custom and Programmable. The timed modes override the basic mode temporarily. The desired mode is activated by entering the duration in the mode's timer register. The mode is activated and the timer register starts to count down. When all the timed modes' timer registers reach zero, the ventilation unit returns to the basic mode.

- 4612 = Boost mode timer register
- 4613 = Custom mode timer register
- 4614 = Programmable mode timer register

A timed mode can be set to continue indefinitely by entering value 65535 in the mode's timer register. This prevents the timer from counting down until the timer register is re-set manually or the mode is switched from another user interface.

The timer can also be deactivated from the corresponding timer switch register, 0 = timer off and 1 = timer on. This also prevents the use of timers through all user interfaces.

> **NOTE**
> If a MyVallox digital input is used to switch the mode, the timer switch register content is also modified.

- 21766 = Register enabling the Boost timer
- 21767 = Register enabling the Custom timer
- 21772 = Register enabling the Programmable timer

EXAMPLES

Activating the Custom mode for 15 minutes

- Enter 15 in register 4613.
- Enter 1 in register 21767 (if not yet entered).

Activating the Boost mode without a timer (permanent mode)

Method 1:
- Enter 65535 in register 4612.

Method 2:
- Enter any value (other than 0) in register 4612.
- Enter 0 in register 21766.

Deactivating the Boost mode, return to the selected basic mode (Away/At Home)

- Enter 0 in register 4612.
- Alternatively, enter 0 in registers 4613, 4614 to deactivate all the timed modes.

Switching from the At Home mode to the Away mode

- Enter 1 in register 4609.
- Alternatively, enter 0 in registers 4612, 4613, 4614 to deactivate all the timed modes.

PRIORITY MODE

If more than one mode is active simultaneously, the mode with the highest priority overrides the other modes. For example, if the Custom mode and Boost mode are active simultaneously, the ventilation unit uses the Custom mode. The priority order of the modes:

1. Programmable
2. Custom
3. Boost
4. At Home/Away (default)

CUTTING OFF POWER TO THE UNIT

You can cut off power to the unit by entering "5" in register 4610. The power is turned on by entering "0" in register 4610.

DATA CONVERSION FORMULA

NOTE
The temperatures are given in centikelvins.

- Temperature in Celsius degrees = (temperature in centikelvins−27315)/100
- Temperature in centikelvins = (temperature in Celsius degrees*100)+27315

FAULT SITUATIONS

The fault notification status is readable in register 4621. Register 4621 only switches to 1 when a critical fault that stops the unit is activated. Faults that do not stop the unit do not change the register status.

0 = normal operation, 1 = critical fault, unit stopped. The fault type is shown in the MyVallox user interface or through Modbus by following the instructions below.

register	name	R/RW	min	max	type	description
3x4621	CRITICAL FAULT ACTIVE	R	0	1		Unit critical fault active, unit is off

Reading different fault situations

Register 36865 shows the total number of acknowledged and active faults.

register	name	R/RW	min	max	type	description
3x36865	TOTAL FAULT COUNT	R	0	33		Total count of faults

Reading faults

The table shows the faults in the order of their occurrence. For example, if the total number of faults is 1, read the fault code in register 36866 and check in register 36871 if the fault is active or if it has been acknowledged.

register	name	R/RW	min	max	type	description
3x36866	FAULT 1	R	0	50		Fault 1 code
4x36871	FAULT 1 ACTIVITY	R/W	0	1		Fault 1 state [0= active,1= solved]
3x36872	FAULT 2	R	0	50		Fault 2 code
4x36877	FAULT 2 ACTIVITY	R/W	0	1		Fault 2 state [0= active,1= solved]
3x36878	FAULT 3	R	0	50		Fault 3 code
4x36883	FAULT 3 ACTIVITY	R/W	0	1		Fault 3 state [0= active,1= solved]
3x36884	FAULT 4	R	0	50		Fault 4 code
4x36889	FAULT 4 ACTIVITY	R/W	0	1		Fault 4 state [0= active,1= solved]
3x36890	FAULT 5	R	0	50		Fault 5 code
4x36895	FAULT 5 ACTIVITY	R/W	0	1		Fault 5 state [0= active,1= solved]
3x36896	FAULT 6	R	0	50		Fault 6 code
4x36901	FAULT 6 ACTIVITY	R/W	0	1		Fault 6 state [0= active,1= solved]
3x36902	FAULT 7	R	0	50		Fault 7 code
4x36907	FAULT 7 ACTIVITY	R/W	0	1		Fault 7 state [0= active,1= solved]
3x36908	FAULT 8	R	0	50		Fault 8 code
4x36913	FAULT 8 ACTIVITY	R/W	0	1		Fault 8 state [0= active,1= solved]
3x36914	FAULT 9	R	0	50		Fault 9 code
4x36919	FAULT 9 ACTIVITY	R/W	0	1		Fault 9 state [0= active,1= solved]
3x36920	FAULT 10	R	0	50		Fault 10 code
4x36925	FAULT 10 ACTIVITY	R/W	0	1		Fault 10 state [0= active,1= solved]

Fault code explanations

fault code	explanation	fault code	explanation
0	No fault	8	Supply air from HR cell sensor failure
1	Extract fan failure	9	Extract airflow sensor
2	Supply fan failure	10	Optional temperature sensor failure
3	Supply airflow sensor	11	High supply air temperature
4	Extract air temperature sensor failure	12	Water radiator freezing prevention
5	Outdoor air temperature sensor failure	23	Low supply air temperature
6	Supply air temperature sensor failure	25	Supply airflow is not achieved
7	Exhaust air temperature sensor failure	26	Extract airflow is not achieved

Modbus settings with MyVallox controllers

=> Expert settings

=> I/O and bus settings

=> Modbus settings

=> Set the ventilation unit's Modbus address. You can select the address between 1–247.

=> Set the Modbus's baud rate. The options are 9600, 19200, 38400, 57600 or 115200.

=> Set the Modbus buttons. The options are:
- no — No parity
- even — Even parity
- odd — Odd parity.

=> Set the Modbus stop bit. The options are 1 or 2.

=> Confirm the settings by selecting **OK**.

Modbus settings with a WWW user interface

The Modbus settings of the MyVallox ventilation unit can also be set via a WWW user interface. There are two options:

- MyVallox Home LAN connection
- MyVallox Cloud cloud service

It is recommended the Modbus settings be set when the unit is commissioned to save them automatically as default settings.

1. Select Expert settings.

2. Scroll down the view until you find the Modbus settings.

Modbus settings

Address	1
Baud rate	19200
Parity	even
Stop bit	1

3. Select **Edit**:

4. The Modbus settings view opens for editing:

Modbus settings   ✕ ✓

Address
[1]

Baud rate   [19200 ▼]

Parity   [even ▼]

Stop bit   [1 ▼]

5. Set the ventilation unit's Modbus address in the Address field. You can use the blue slide control to set the address. You can select the address between 1–247.

6. Select the Modbus's baud rate in the Baud rate menu. The options are 9600, 19200, 38400, 57600 or 115200.

7. Select the Modbus's parity in the Parity menu. The options are:

- • no — No parity
- • even — Even parity
- • odd — Odd parity.

8. Set the Modbus stop bit in the Stop bit field. The options are 1 or 2.

9. Select **OK**.

✓

10. The Modbus settings are now set.

ELECTRIC DIAGRAM

Modbus Master device

A   B

Vallox no 1, slave device

A
B

MB_A
MB_B
+24V
RS_A
RS_B
GND

X102

MB_A
MB_B
+24V
RS_A
RS_B
GND

A
B

Vallox no 2, slave device

A
B

MB_A
MB_B
+24V
RS_A
RS_B
GND

X102

MB_A
MB_B
+24V
RS_A
RS_B
GND

A
B

Vallox no 3, slave device

A
B

MB_A
MB_B
+24V
RS_A
RS_B
GND

X102

MB_A
MB_B
+24V
RS_A
RS_B
GND

A
B

R = 120Ω

Vallox no n, slave device

A
B

MB_A
MB_B
+24V
RS_A
RS_B
GND

X102

MB_A
MB_B
+24V
RS_A
RS_B
GND

$n \leq 32$

VALLOX
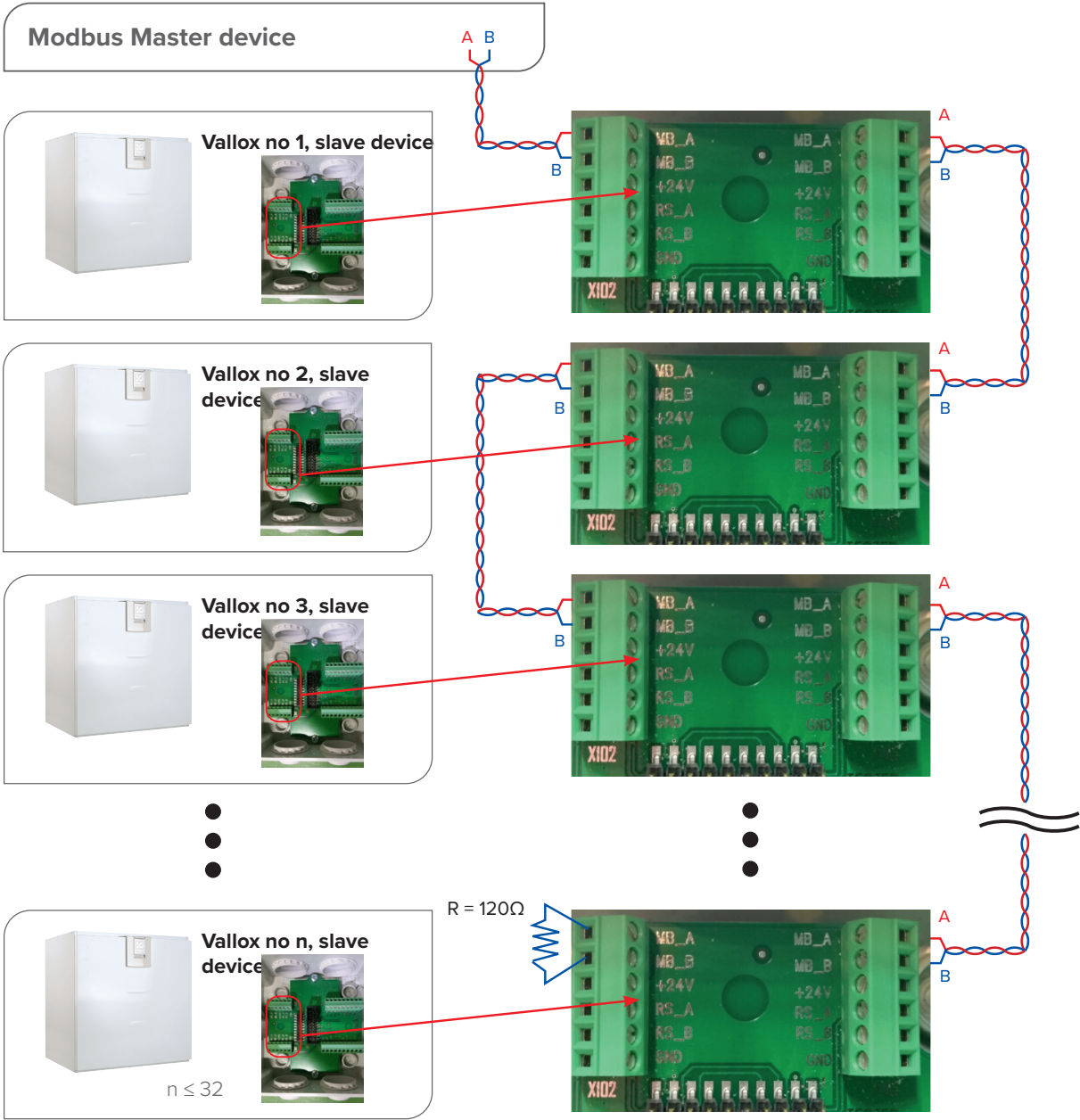
MODBUS REGISTERS

Reading temperature and sensor data

Temperatures are read in centikelvins.
Conversion formula: Temperature in Celsius degrees = (temperature in centikelvins−27315)/100

register	name	R/RW	min	max	type	description
3x4354	EXTRACT AIR TEMPERATURE	R	21000	33224	cK	Read current extract air temperature in cK
3x4355	EXHAUST AIR TEMPERATURE	R	21000	33224	cK	Read current supply air from cell temperature in cK
3x4356	OUTDOOR AIR TEMPERATURE	R	21000	33224	cK	Read current outdoor air temperature in cK
3x4357	SUPPLY CELL AIR TEMPERATURE	R	21000	33224	cK	Read current supply air from cell temperature in cK
3x4358	SUPPLY AIR TEMPERATURE	R	21000	33224	cK	Read current supply air temperature in cK
3x4389	OPTIONAL SENSOR TEMPERATURE	R	20000	33224	cK	Read current optional external temperature in cK
3x4363	RH VALUE	R	0	100	RH%	Read current RH measurement, 0 = No sensor installed. Shows the highest value if multiple sensors installed.
3x4364	CO2 VALUE	R	0	10000	PPM	Read current CO2 value, 0 = No sensor installed Shows the highest value if multiple sensors installed.

Reading and writing the temperature and sensor settings

Humidity and carbon dioxide sensors

register	name	R/RW	min	max	type	description
4x20490	RH TRESHOLD	R/W	0	65535	%	Set and read the RH level, 65535 = RH level calibration on-going
4x20499	AWAY RH CONTROL	R/W	0	1		Read and set RH control in use in away mode [0=not in use, 1 = in use]
4x20505	HOME RH CONTROL	R/W	0	1		Read and set RH control in use in at home mode [0=not in use, 1 = in use]
4x20511	BOOST RH CONTROL	R/W	0	1		Read and set RH control in use in boost mode [0=not in use, 1 = in use]
4x20491	CO2 THRESHOLD	R/W	500	2000	PPM	Set and read the CO2 threshold
4x20500	AWAY CO2 CONTROL	R/W	0	1		Read and set CO2 control in use in away mode [0=not in use, 1 = in use]
4x20506	HOME CO2 CONTROL	R/W	0	1		Read and set CO2 control in use in at home mode [0=not in use, 1 = in use]
4x20512	BOOST CO2 CONTROL	R/W	0	1		Read and set CO2 control in use in boost mode[0=not in use, 1 = in use]

Supply air temperature settings

Temperatures are written and read in centikelvins.
Conversion formula: Temperature in centikelvins = (temperature in Celsius degrees*100)+27315

register	name	R/RW	min	max	type	description
4x20502	AWAY SUPPLY TEMP SETTING	R/W	27815	29815	cK	Read and set supply air temperature setting in away mode (cK)
4x20508	HOME SUPPLY TEMP SETTING	R/W	27815	29815	cK	Read and set supply air temperature setting in at home mode (cK)
4x20514	BOOST SUPPLY TEMP SETTING	R/W	27815	29815	cK	Read and set supply air temperature setting in boost mode (cK)
4x20497	CUSTOM SUPPLY TEMP SETTING	R/W	27815	29815	cK	Read and set supply air temperature setting in custon mode (cK)
4x20493	PROG. INPUT TEMP SETTING	R/W	27815	29815	cK	Read and set supply air temperature setting in programmable input (cK)

Controlling the ventilation unit

register	name	R/RW	min	max	type	description
4x4609	HOME/AWAY	R/W	0	1		Set the unit to At Home or Away mode [0=Home, 1= Away]
4x4610	SWITCH UNIT ON/OFF	R/W	0	5		Switch the unit off or on [0=on, 5 = off]

Vallox MV units (% control)

register	name	R/RW	min	max	type	description
4x20501	AWAY SPEED SETTING	R/W	0	100	%	Read or set the fan speed setting for away mode, 0-100%
4x20507	HOME SPEED SETTING	R/W	0	100	%	Read or set the fan speed setting for at home mode, 0-100%
4x20513	BOOST SPEED SETTING	R/W	0	100	%	Read or set the fan speed setting for boost mode, 0-100%
4x20487	CUSTOM EXTRACT SPEED SETTING	R/W	0	100	%	Read or set the Extract fan speed setting at custom mode, 0-100%
4x20488	CUSTOM SUPPLY SPEED SETTING	R/W	0	100	%	Read or set the Supply fan speed setting at custom mode, 0-100%
4x20494	PROG. INPUT EXTRACT SPEED SETTING	R/W	0	100	%	Read or set the Extract fan speed at programmable input, 0-100%
4x20495	PROG. INPUT SUPPLY SPEED SETTING	R/W	0	100	%	Read or set the Supply fan speed at at programmable input, 0-100%
4x20485	EXTR_FAN_BALANCE_BASE	R/W	0	100	%	Extract fan speed balance ground value
4x20486	SUPP_FAN_BALANCE_BASE	R/W	0	100	%	Supply fan speed balance ground value

MyVallox CFi units (l/s or m^3/h)

Note! The air volume cannot be higher or lower than the maximum or minimum airflow of the ventilation unit.
- MyVallox CFi unit's maximum airflow (unit_max) can be read in register 46031
- MyVallox CFi unit's minimum airflow (unit_min) can be read in register 46032

register	name	R/RW	min	max	type	description
4x20501	AWAY AIRFLOW SETTING	R/W	unit_min	unit_max		Read or set the fan speed setting for away mode (l/s or m3/h)
4x20507	HOME AIRFLOW SETTING	R/W	unit_min	unit_max		Read or set the fan speed setting for at home mode (l/s or m3/h)
4x20513	BOOST AIRFLOW SETTING	R/W	unit_min	unit_max		Read or set the fan speed setting for boost mode (l/s or m3/h)
4x20487	CUSTOM EXTRACT AIRFLOW SETTING	R/W	unit_min	unit_max		Read or set the Extract fan speed setting at custom mode (l/s or m3/h)
4x20488	CUSTOM SUPPLY AIRFLOW SETTING	R/W	unit_min	unit_max		Read or set the Supply fan speed setting at custom mode (l/s or m3/h)
4x20494	PROG. INPUT EXTRACT AIRFLOW SETTING	R/W	unit_min	unit_max		Read or set the Extract fan speed at programmable input (l/s or m3/h)
4x20495	PROG. INPUT SUPPLY AIRFLOW SETTING	R/W	unit_min	unit_max		Read or set the Supply fan speed at at programmable input (l/s or m3/h)
4x32779	CFI LIMITER	R/W	0	1	off/on	Enables CF limiter [0 = off, 1 = on]
3x32780	CFI LIMITER ACTIVE	R	0	1	false/true	Limiter activated [0 = no, 1 = yes]
3x32781	CFI SUPPLY FANLOAD LEVEL	R	0	10		Supply fan load indicator, scales from 0–10 [0 = no load, 10 = max load]
3x32782	CFI EXTRACT FANLOAD LEVEL	R	0	10		Extract fan load indicator, scales from 0–10 [0 = no load, 10 = max load]
4x46031	CONSTANT FAN MAX VALUE	R/W	0	2000	l/s or m^3/h	Units defined the maximum airflow. The default value is taken from the configuration number and edited by airflow tests. Editing this by hand is not recommended.
4x46032	CONSTANT FAN MIN VALUE	R/W	0	300	l/s or m^3/h	Units defined minimum airflow. The default is taken from the configuration number. Editing this by hand is not recommended.

VALLOX

Timers

register	name	R/RW	min	max	type	description
4x4612	BOOST MODE TIMER	R/W	0	65535	minutes	Set and read Boost timer time (time that is set in the timer). Timer is enabled from register 21766. 65535 = Timed mode runs indefinitely. The timer is not used when 65535 is written to this register.
4x20544	BOOST MODE TIME	R/W	1	65535	minutes	Set and read Boost timer current value, decreases when custom boost is controlling the unit.
4x21766	BOOST MODE ENABLE TIMER	R/W	0	1		Boost timer enabled [0=timer disabled, 1= timer enabled]
4x4613	CUSTOM MODE TIME	R/W	0	65535	minutes	Set and read Custom timer time (time that is set in the timer). Timer is enabled from register 21767. 65535 = Timed mode runs indefinitely. The timer is not used when 65535 is written to this register.
4x20545	CUSTOM MODE TIME	R/W	1	65535	minutes	Set and read custom timer current value, decreases when custom mode is controlling the unit.
4x21767	CUSTOM MODE ENABLE TIMER	R/W	0	1		Enable or disable custom timer [0=timer disabled, 1= timer enabled]
4x4614	PROG. INPUT TIMER	R/W	0	65535	minutes	Set and read programmable input timer time (time that is set in the timer). Timer is enabled from 21772. 65535 = Timed mode runs indefinitely. The timer is not used when 65535 is written to this register.
4x20496	PROG. INPUT TIME	R/W	1	65535	minutes	Set and read programmable input input current value, decreases when programmable input is controlling the unit.
4x21772	PROG. INPUT TIMER ENABLED	R/W	0	1		Enable or disable programmable input mode timer [0=timer disabled, 1= timer enabled]

Reading the fan speed

register	name	R/RW	min	max	type	description
3x4353	FAN SPEED	R	0	100	%	Read current fan speed 0-100%, only available with % control
3x46003	CFi SUPPLY AIRFLOW	R	0	unit_max	flow	Read current supply airflow, only available CFi units
3x46004	CFi EXTRACT AIRFLOW	R	0	unit_max	flow	Read current extract airflow, only available CFi units

Filters

register	name	R/RW	min	max	type	description
3x4620	REMAINING_TIME_FOR_FILTER	R	0	365	days	Read remaining time to filter change indication
4x20546	FILTER_CHANGED_DAY	R/W	1	31	days	Last filter change date
4x20547	FILTER_CHANGED_MONTH	R/W	1	12	months	Last filter change date
4x20548	FILTER_CHANGED_YEAR	R/W	0	99	years	Last filter change date

Other registers

register	name	R/RW	min	max	type	description
4x4611	DEFROSTING	R/W	0	1		Start defrosting manually [0 = no defrosting, 1 = Defrosting is on]
3x4616	HR CELL STATUS	R	0	3		Read HR cell status [0 = heat recovery, 1 = cool recovery, 2 = HR cell bypass, 3 =defrosting]
4x20549	TEMPERATURE CONTROL METHOD	R/W	0	3		Read or set supply air heating method [0 =supply air, 1 = extract air, 2 = cooling, 3 = airheating]
3x4359	RH_LEVEL	R	0	3		RH level (no sensor, low, med, high).
3x4360	CO2_LEVEL	R	0	3		CO2 level (no sensor, low, med, high)
3x4361	EXTR_FAN_SPEED	R	0	10000	RPM	Extract fan speed
3x4362	SUPP_FAN_SPEED	R	0	10000	RPM	Supply fan speed
3x4365	CUSTOM_SWITCH	R	0	1		Digital input 1 state (off on)
3x4366	DIGITAL_INPUT	R	0	1		Digital input 2 state (off on)
3x4367	ANALOG_CTRL_INPUT	R	0	100	%	Analog input control state
3x4368	MULTISENSOR_CO2	R	0	65535	12bit	CO2 concentration from multisensor
3x4369	MULTISENSOR_TEMP	R	0	65535	12bit	Tempearature from multisensor
3x4370	MULTISENSOR_RH	R	0	65535	12bit	Humidity from multisensor3x
3x4372	ANALOG_SENSOR_INPUT	R	0	65535	%RH	Internal %RH sensor 65535 = No sensor
3x4373	RH_SENSOR_0	R	0	65535	%RH	RH value from sensor 0
3x4374	RH_SENSOR_1	R	0	65535	%RH	RH value from sensor 1
3x4375	RH_SENSOR_2	R	0	65535	%RH	RH value from sensor 2
3x4376	RH_SENSOR_3	R	0	65535	%RH	RH value from sensor 3
3x4377	RH_SENSOR_4	R	0	65535	%RH	RH value from sensor 4
3x4378	RH_SENSOR_5	R	0	65535	%RH	RH value from sensor 5
3x4379	CO2_SENSOR_0	R	0	65535	PPM	CO2 value from sensor 0
3x4380	CO2_SENSOR_1	R	0	65535	PPM	CO2 value from sensor 1
3x4381	CO2_SENSOR_2	R	0	65535	PPM	CO2 value from sensor 2
3x4382	CO2_SENSOR_3	R	0	65535	PPM	CO2 value from sensor 3
3x4383	CO2_SENSOR_4	R	0	65535	PPM	CO2 value from sensor 4
3x4384	CO2_SENSOR_5	R	0	65535	PPM	CO2 value from sensor 5
3x4390	VOC_LEVEL	R	0	65535	PPM	VOC sensor highest value (not used locked to 1000)
3x4391	VOC_SENSOR_0	R	0	65535	PPM	VOC value from sensor 0
3x4392	VOC_SENSOR_1	R	0	65535	PPM	VOC value from sensor 1
3x4393	VOC_SENSOR_2	R	0	65535	PPM	VOC value from sensor 2
3x4394	VOC_SENSOR_3	R	0	65535	PPM	VOC value from sensor 3
4x4615	WEEKLY_TIMER_ENABLED	R/W	0	1		Weekly timer state (off on)
3x4617	TOTAL_UP_TIME_YEARS	R	0	65535	a	Total up time
3x4618	TOTAL_UP_TIME_HOURS	R	0	8760	h	Total up time
3x4619	CURRENT_UP_TIME_HOURS	R	0	65535	h	Current up time
4x4627	COMMAND	R/W	0	65535		Command variable
3x4628	MLV_STATE	R	0	1		"Earth heat" radiator state flag (off on)
4x4849	MINUTE	R/W	0	59	minutes	Minutes of the current time
4x4850	HOUR	R/W	0	23	hours	Hours of the current time
4x4851	DAY	R/W	1	31	days	Days of the current time
4x4852	MONTH	R/W	1	12	months	Months of the current date
4x4853	YEAR	R/W	0	99	years	Years of the current date
3x4854	WEEKDAY	R	1	7	weekday	Weekday (Mon Tue Wed ...)
3x8194	GW_ADDRESS_1	R	0	65535		Gateway address (0xAABB)
3x8195	GW_ADDRESS_2	R	0	65535		Gateway address (0xCCDD)
3x8196	MASK_ADDRESS_1	R	0	65535		Mask (0xAABB)
3x8197	MASK_ADDRESS_2	R	0	65535		Mask (0xCCDD)
4x8211	ETH_CLOUD_ENABLED	R/W	0	1		Outgoing connection to cloud (disabled enabled)
3x8212	IP_ADDRESS_1	R	0	65535		IP address first two bytes (0xAABB)
3x8213	IP_ADDRESS_1	R	0	65535		IP address last two bytes (0xCCDD)
4x20482	MODBUS_ADDRESS	R/W	1	247	8bit addr.	Modbus address on remote bus 1...247 (0xF7)
4x20483	MODBUS_BAUD_x100	R/W	96	1152		Baud * 100 Modbus speed on remote bus

VALLOX

register	name	R/RW	min	max	type	description
4x20484	MODBUS_FRAME	R/W	0	514	8bit pair	Modbus data frame; MSB parity ...
4x20517	RELAY_MODE	R/W	0	8	16bit value	Error relay mode (maintenance reminder error ...)
4x20518	DIGITAL_INPUT_1_MODE	R/W	0	8	16bit value	Digital input 1 mode (None custom home/away ...)
4x20519	DIGITAL_INPUT_2_MODE	R/W	0	8	16bit value	Digital input 2 mode (None custom home/away ...)
4x20520	ANALOG_INPUT_MODE	R/W	0	3	16bit value	Analog input mode (None Situational control ...)
4x20521	MLV_SUPPLY_LOWER_LIMIT	R/W	27815	29815	cK	MLV cooling lower limit for supply
4x20523	MLV_AUTO_MANUAL	R/W	0	1	16bit value	MLV control type (automatic manual)
4x20529	MVL_SUMMER_SETPOINT	R/W	28315	29815	cK	MLV summer setpoint
4x20530	MLV_MODES	R/W	0	2	16bit value	MLV Modes (heating and cooling heating cooling)
4x20531	MLV_WINTER_SETPOINT	R/W	26315	27815	cK	MLV winter setpoint
4x20537	FILTER_CHANGE_INTERVAL	R/W	30	365	days	Interval for filter change indicator (reload value)
4x20538	CELL_TYPE	R/W	0	2	16bit value	Heat recovery cell (aluminium plastic enthalpy)
4x20539	EXTRA_HEATER_TYPE	R/W	0	2	16bit value	Extra heater type (None Electric Water)
4x20540	POST_HEATER_TYPE	R/W	0	2	16bit value	Post heater type (None Electric Water)
4x20543	RH_LEVEL_MODE	R/W	0	1		Automatic level update Manual
4x20551	PARTIAL_BYPASS	R/W	0	2	16bit value	Partial bypass state (None, summer, always)
4x20552	BYPASS_LOCKED	R/W	0	1	16bit value	Bypass locked to winter position (open locked)
4x20553	OPT_TEMP_SENSOR_MODE	R/W	0	3	16bit value	Opt. Sensor mode (None, MLV, out, Airheater, MLV Supply)
4x20554	POST_HEATER_WINTER_SETPOINT	R/W	25315	30315	cK	Post heater winter limit temperature
4x20555	DEWPOINT_LIMIT_IN_USE	R/W	0	1	16bit value	Use dew point limit in supply air setting (not in use)
4x21764	ACCESS_LEVEL	R/W	0	2		Access level (free limited very limited)
4x21765	PARENTAL_CTRL_ENABLED	R/W	0	1		Parental control state (off, on)
4x21768	SUMMER_TIME_AUTO_ENAB	R/W	0	1		Automatic summer time (off, on)
4x21769	12_HOUR_CLOCK_ENABLED	R/W	0	1		12 hour clock (off on)
4x40961	SCHEDULE_MONDAY_00	R/W	0	3		State at 00:00 on Monday [None, home, away, boost]
4x40962	SCHEDULE_MONDAY_01	R/W	0	3		State at 01:00 on Monday [None, home, away, boost]
4x40963	SCHEDULE_MONDAY_02	R/W	0	3		State at 02:00 on Monday [None, home, away, boost]
4x40964	SCHEDULE_MONDAY_03	R/W	0	3		State at 03:00 on Monday [None, home, away, boost]
4x40965	SCHEDULE_MONDAY_04	R/W	0	3		State at 04:00 on Monday [None, home, away, boost]
4x40966	SCHEDULE_MONDAY_05	R/W	0	3		State at 05:00 on Monday [None, home, away, boost]
4x40967	SCHEDULE_MONDAY_06	R/W	0	3		State at 06:00 on Monday [None, home, away, boost]
4x40968	SCHEDULE_MONDAY_07	R/W	0	3		State at 07:00 on Monday [None, home, away, boost]
4x40969	SCHEDULE_MONDAY_08	R/W	0	3		State at 08:00 on Monday [None, home, away, boost]
4x40970	SCHEDULE_MONDAY_09	R/W	0	3		State at 09:00 on Monday [None, home, away, boost]
4x40971	SCHEDULE_MONDAY_10	R/W	0	3		State at 10:00 on Monday [None, home, away, boost]
4x40972	SCHEDULE_MONDAY_11	R/W	0	3		State at 11:00 on Monday [None, home, away, boost]
4x40973	SCHEDULE_MONDAY_12	R/W	0	3		State at 12:00 on Monday [None, home, away, boost]
4x40974	SCHEDULE_MONDAY_13	R/W	0	3		State at 13:00 on Monday [None, home, away, boost]
4x40975	SCHEDULE_MONDAY_14	R/W	0	3		State at 14:00 on Monday [None, home, away, boost]
4x40976	SCHEDULE_MONDAY_15	R/W	0	3		State at 15:00 on Monday [None, home, away, boost]
4x40977	SCHEDULE_MONDAY_16	R/W	0	3		State at 16:00 on Monday [None, home, away, boost]
4x40978	SCHEDULE_MONDAY_17	R/W	0	3		State at 17:00 on Monday [None, home, away, boost]
4x40979	SCHEDULE_MONDAY_18	R/W	0	3		State at 18:00 on Monday [None, home, away, boost]
4x40980	SCHEDULE_MONDAY_19	R/W	0	3		State at 19:00 on Monday [None, home, away, boost]
4x40981	SCHEDULE_MONDAY_20	R/W	0	3		State at 20:00 on Monday [None, home, away, boost]
4x40982	SCHEDULE_MONDAY_21	R/W	0	3		State at 21:00 on Monday [None, home, away, boost]
4x40983	SCHEDULE_MONDAY_22	R/W	0	3		State at 21200 on Monday [None, home, away, boost]
4x40984	SCHEDULE_MONDAY_23	R/W	0	3		State at 23:00 on Monday [None, home, away, boost]
4x40985	SCHEDULE_TUESDAY_00	R/W	0	3		State at 00:00 on Tuesday [None, home, away, boost]

register	name	R/RW	min	max	type	description
4x40986	SCHEDULE_TUESDAY_01	R/W	0	3		State at 01:00 on Tuesday [None, home, away, boost]
4x40987	SCHEDULE_TUESDAY_02	R/W	0	3		State at 02:00 on Tuesday [None, home, away, boost]
4x40988	SCHEDULE_TUESDAY_03	R/W	0	3		State at 03:00 on Tuesday [None, home, away, boost]
4x40989	SCHEDULE_TUESDAY_04	R/W	0	3		State at 04:00 on Tuesday [None, home, away, boost]
4x40990	SCHEDULE_TUESDAY_05	R/W	0	3		State at 05:00 on Tuesday [None, home, away, boost]
4x40991	SCHEDULE_TUESDAY_06	R/W	0	3		State at 06:00 on Tuesday [None, home, away, boost]
4x40992	SCHEDULE_TUESDAY_07	R/W	0	3		State at 07:00 on Tuesday [None, home, away, boost]
4x40993	SCHEDULE_TUESDAY_08	R/W	0	3		State at 08:00 on Tuesday [None, home, away, boost]
4x40994	SCHEDULE_TUESDAY_09	R/W	0	3		State at 09:00 on Tuesday [None, home, away, boost]
4x40995	SCHEDULE_TUESDAY_10	R/W	0	3		State at 10:00 on Tuesday [None, home, away, boost]
4x40996	SCHEDULE_TUESDAY_11	R/W	0	3		State at 11:00 on Tuesday [None, home, away, boost]
4x40997	SCHEDULE_TUESDAY_12	R/W	0	3		State at 12:00 on Tuesday [None, home, away, boost]
4x40998	SCHEDULE_TUESDAY_13	R/W	0	3		State at 13:00 on Tuesday [None, home, away, boost]
4x40999	SCHEDULE_TUESDAY_14	R/W	0	3		State at 14:00 on Tuesday [None, home, away, boost]
4x41000	SCHEDULE_TUESDAY_15	R/W	0	3		State at 15:00 on Tuesday [None, home, away, boost]
4x41001	SCHEDULE_TUESDAY_16	R/W	0	3		State at 16:00 on Tuesday [None, home, away, boost]
4x41002	SCHEDULE_TUESDAY_17	R/W	0	3		State at 17:00 on Tuesday [None, home, away, boost]
4x41003	SCHEDULE_TUESDAY_18	R/W	0	3		State at 18:00 on Tuesday [None, home, away, boost]
4x41004	SCHEDULE_TUESDAY_19	R/W	0	3		State at 19:00 on Tuesday [None, home, away, boost]
4x41005	SCHEDULE_TUESDAY_20	R/W	0	3		State at 20:00 on Tuesday [None, home, away, boost]
4x41006	SCHEDULE_TUESDAY_21	R/W	0	3		State at 21:00 on Tuesday [None, home, away, boost]
4x41007	SCHEDULE_TUESDAY_22	R/W	0	3		State at 22:00 on Tuesday [None, home, away, boost]
4x41008	SCHEDULE_TUESDAY_23	R/W	0	3		State at 23:00 on Tuesday [None, home, away, boost]
4x41009	SCHEDULE_WEDNESDAY_00	R/W	0	3		State at 00:00 on Wednesday [None, home, away, boost]
4x41010	SCHEDULE_WEDNESDAY_01	R/W	0	3		State at 01:00 on Wednesday [None, home, away, boost]
4x41011	SCHEDULE_WEDNESDAY_02	R/W	0	3		State at 02:00 on Wednesday [None, home, away, boost]
4x41012	SCHEDULE_WEDNESDAY_03	R/W	0	3		State at 03:00 on Wednesday [None, home, away, boost]
4x41013	SCHEDULE_WEDNESDAY_04	R/W	0	3		State at 04:00 on Wednesday [None, home, away, boost]
4x41014	SCHEDULE_WEDNESDAY_05	R/W	0	3		State at 05:00 on Wednesday [None, home, away, boost]
4x41015	SCHEDULE_WEDNESDAY_06	R/W	0	3		State at 06:00 on Wednesday [None, home, away, boost]
4x41016	SCHEDULE_WEDNESDAY_07	R/W	0	3		State at 07:00 on Wednesday [None, home, away, boost]
4x41017	SCHEDULE_WEDNESDAY_08	R/W	0	3		State at 08:00 on Wednesday [None, home, away, boost]
4x41018	SCHEDULE_WEDNESDAY_09	R/W	0	3		State at 09:00 on Wednesday [None, home, away, boost]
4x41019	SCHEDULE_WEDNESDAY_10	R/W	0	3		State at 10:00 on Wednesday [None, home, away, boost]
4x41020	SCHEDULE_WEDNESDAY_11	R/W	0	3		State at 11:00 on Wednesday [None, home, away, boost]
4x41021	SCHEDULE_WEDNESDAY_12	R/W	0	3		State at 12:00 on Wednesday [None, home, away, boost]
4x41022	SCHEDULE_WEDNESDAY_13	R/W	0	3		State at 13:00 on Wednesday [None, home, away, boost]
4x41023	SCHEDULE_WEDNESDAY_14	R/W	0	3		State at 14:00 on Wednesday [None, home, away, boost]
4x41024	SCHEDULE_WEDNESDAY_15	R/W	0	3		State at 15:00 on Wednesday [None, home, away, boost]
4x41025	SCHEDULE_WEDNESDAY_16	R/W	0	3		State at 16:00 on Wednesday [None, home, away, boost]
4x41026	SCHEDULE_WEDNESDAY_17	R/W	0	3		State at 17:00 on Wednesday [None, home, away, boost]
4x41027	SCHEDULE_WEDNESDAY_18	R/W	0	3		State at 18:00 on Wednesday [None, home, away, boost]
4x41028	SCHEDULE_WEDNESDAY_19	R/W	0	3		State at 19:00 on Wednesday [None, home, away, boost]
4x41029	SCHEDULE_WEDNESDAY_20	R/W	0	3		State at 20:00 on Wednesday [None, home, away, boost]
4x41030	SCHEDULE_WEDNESDAY_21	R/W	0	3		State at 21:00 on Wednesday [None, home, away, boost]
4x41031	SCHEDULE_WEDNESDAY_22	R/W	0	3		State at 22:00 on Wednesday [None, home, away, boost]
4x41032	SCHEDULE_WEDNESDAY_23	R/W	0	3		State at 23:00 on Wednesday [None, home, away, boost]
4x41033	SCHEDULE_THURSDAY_00	R/W	0	3		State at 00:00 on Thursday [None, home, away, boost]
4x41034	SCHEDULE_THURSDAY_01	R/W	0	3		State at 01:00 on Thursday [None, home, away, boost]

VALLOX

register	name	R/RW	min	max	type	description
4x41035	SCHEDULE_THURSDAY_02	R/W	0	3		State at 02:00 on Thursday [None, home, away, boost]
4x41036	SCHEDULE_THURSDAY_03	R/W	0	3		State at 03:00 on Thursday [None, home, away, boost]
4x41037	SCHEDULE_THURSDAY_04	R/W	0	3		State at 04:00 on Thursday [None, home, away, boost]
4x41038	SCHEDULE_THURSDAY_05	R/W	0	3		State at 05:00 on Thursday [None, home, away, boost]
4x41039	SCHEDULE_THURSDAY_06	R/W	0	3		State at 06:00 on Thursday [None, home, away, boost]
4x41040	SCHEDULE_THURSDAY_07	R/W	0	3		State at 07:00 on Thursday [None, home, away, boost]
4x41041	SCHEDULE_THURSDAY_08	R/W	0	3		State at 08:00 on Thursday [None, home, away, boost]
4x41042	SCHEDULE_THURSDAY_09	R/W	0	3		State at 09:00 on Thursday [None, home, away, boost]
4x41043	SCHEDULE_THURSDAY_10	R/W	0	3		State at 10:00 on Thursday [None, home, away, boost]
4x41044	SCHEDULE_THURSDAY_11	R/W	0	3		State at 11:00 on Thursday [None, home, away, boost]
4x41045	SCHEDULE_THURSDAY_12	R/W	0	3		State at 12:00 on Thursday [None, home, away, boost]
4x41046	SCHEDULE_THURSDAY_13	R/W	0	3		State at 13:00 on Thursday [None, home, away, boost]
4x41047	SCHEDULE_THURSDAY_14	R/W	0	3		State at 14:00 on Thursday [None, home, away, boost]
4x41048	SCHEDULE_THURSDAY_15	R/W	0	3		State at 15:00 on Thursday [None, home, away, boost]
4x41049	SCHEDULE_THURSDAY_16	R/W	0	3		State at 16:00 on Thursday [None, home, away, boost]
4x41050	SCHEDULE_THURSDAY_17	R/W	0	3		State at 17:00 on Thursday [None, home, away, boost]
4x41051	SCHEDULE_THURSDAY_18	R/W	0	3		State at 18:00 on Thursday [None, home, away, boost]
4x41052	SCHEDULE_THURSDAY_19	R/W	0	3		State at 19:00 on Thursday [None, home, away, boost]
4x41053	SCHEDULE_THURSDAY_20	R/W	0	3		State at 20:00 on Thursday [None, home, away, boost]
4x41054	SCHEDULE_THURSDAY_21	R/W	0	3		State at 21:00 on Thursday [None, home, away, boost]
4x41055	SCHEDULE_THURSDAY_22	R/W	0	3		State at 22:00 on Thursday [None, home, away, boost]
4x41056	SCHEDULE_THURSDAY_23	R/W	0	3		State at 23:00 on Thursday [None, home, away, boost]
4x41057	SCHEDULE_FRIDAY_00	R/W	0	3		State at 00:00 on Friday [None, home, away, boost]
4x41058	SCHEDULE_FRIDAY_01	R/W	0	3		State at 01:00 on Friday [None, home, away, boost]
4x41059	SCHEDULE_FRIDAY_02	R/W	0	3		State at 02:00 on Friday [None, home, away, boost]
4x41060	SCHEDULE_FRIDAY_03	R/W	0	3		State at 03:00 on Friday [None, home, away, boost]
4x41061	SCHEDULE_FRIDAY_04	R/W	0	3		State at 04:00 on Friday [None, home, away, boost]
4x41062	SCHEDULE_FRIDAY_05	R/W	0	3		State at 05:00 on Friday [None, home, away, boost]
4x41063	SCHEDULE_FRIDAY_06	R/W	0	3		State at 06:00 on Friday [None, home, away, boost]
4x41064	SCHEDULE_FRIDAY_07	R/W	0	3		State at 07:00 on Friday [None, home, away, boost]
4x41065	SCHEDULE_FRIDAY_08	R/W	0	3		State at 08:00 on Friday [None, home, away, boost]
4x41066	SCHEDULE_FRIDAY_09	R/W	0	3		State at 09:00 on Friday [None, home, away, boost]
4x41067	SCHEDULE_FRIDAY_10	R/W	0	3		State at 10:00 on Friday [None, home, away, boost]
4x41068	SCHEDULE_FRIDAY_11	R/W	0	3		State at 11:00 on Friday [None, home, away, boost]
4x41069	SCHEDULE_FRIDAY_12	R/W	0	3		State at 12:00 on Friday [None, home, away, boost]
4x41070	SCHEDULE_FRIDAY_13	R/W	0	3		State at 13:00 on Friday [None, home, away, boost]
4x41071	SCHEDULE_FRIDAY_14	R/W	0	3		State at 14:00 on Friday [None, home, away, boost]
4x41072	SCHEDULE_FRIDAY_15	R/W	0	3		State at 15:00 on Friday [None, home, away, boost]
4x41073	SCHEDULE_FRIDAY_16	R/W	0	3		State at 16:00 on Friday [None, home, away, boost]
4x41074	SCHEDULE_FRIDAY_17	R/W	0	3		State at 17:00 on Friday [None, home, away, boost]
4x41075	SCHEDULE_FRIDAY_18	R/W	0	3		State at 18:00 on Friday [None, home, away, boost]
4x41076	SCHEDULE_FRIDAY_19	R/W	0	3		State at 19:00 on Friday [None, home, away, boost]
4x41077	SCHEDULE_FRIDAY_20	R/W	0	3		State at 20:00 on Friday [None, home, away, boost]
4x41078	SCHEDULE_FRIDAY_21	R/W	0	3		State at 21:00 on Friday [None, home, away, boost]
4x41079	SCHEDULE_FRIDAY_22	R/W	0	3		State at 22:00 on Friday [None, home, away, boost]
4x41080	SCHEDULE_FRIDAY_23	R/W	0	3		State at 23:00 on Friday [None, home, away, boost]
4x41081	SCHEDULE_SATURDAY_00	R/W	0	3		State at 00:00 on Saturday [None, home, away, boost]
4x41082	SCHEDULE_SATURDAY_01	R/W	0	3		State at 01:00 on Saturday [None, home, away, boost]
4x41083	SCHEDULE_SATURDAY_02	R/W	0	3		State at 02:00 on Saturday [None, home, away, boost]

TECHNICAL INSTRUCTIONS

register	name	R/RW	min	max	type	description
4x41084	SCHEDULE_SATURDAY_03	R/W	0	3		State at 03:00 on Saturday [None, home, away, boost]
4x41085	SCHEDULE_SATURDAY_04	R/W	0	3		State at 04:00 on Saturday [None, home, away, boost]
4x41086	SCHEDULE_SATURDAY_05	R/W	0	3		State at 05:00 on Saturday [None, home, away, boost]
4x41087	SCHEDULE_SATURDAY_06	R/W	0	3		State at 06:00 on Saturday [None, home, away, boost]
4x41088	SCHEDULE_SATURDAY_07	R/W	0	3		State at 07:00 on Saturday [None, home, away, boost]
4x41089	SCHEDULE_SATURDAY_08	R/W	0	3		State at 08:00 on Saturday [None, home, away, boost]
4x41090	SCHEDULE_SATURDAY_09	R/W	0	3		State at 09:00 on Saturday [None, home, away, boost]
4x41091	SCHEDULE_SATURDAY_10	R/W	0	3		State at 10:00 on Saturday [None, home, away, boost]
4x41092	SCHEDULE_SATURDAY_11	R/W	0	3		State at 11:00 on Saturday [None, home, away, boost]
4x41093	SCHEDULE_SATURDAY_12	R/W	0	3		State at 12:00 on Saturday [None, home, away, boost]
4x41094	SCHEDULE_SATURDAY_13	R/W	0	3		State at 13:00 on Saturday [None, home, away, boost]
4x41095	SCHEDULE_SATURDAY_14	R/W	0	3		State at 14:00 on Saturday [None, home, away, boost]
4x41096	SCHEDULE_SATURDAY_15	R/RW	0	3		State at 15:00 on Saturday [None, home, away, boost]
4x41097	SCHEDULE_SATURDAY_16	R/W	0	3		State at 16:00 on Saturday [None, home, away, boost]
4x41098	SCHEDULE_SATURDAY_17	R/W	0	3		State at 17:00 on Saturday [None, home, away, boost]
4x41099	SCHEDULE_SATURDAY_18	R/W	0	3		State at 18:00 on Saturday [None, home, away, boost]
4x41100	SCHEDULE_SATURDAY_19	R/W	0	3		State at 19:00 on Saturday [None, home, away, boost]
4x41101	SCHEDULE_SATURDAY_20	R/W	0	3		State at 20:00 on Saturday [None, home, away, boost]
4x41102	SCHEDULE_SATURDAY_21	R/W	0	3		State at 21:00 on Saturday [None, home, away, boost]
4x41103	SCHEDULE_SATURDAY_22	R/W	0	3		State at 22:00 on Saturday [None, home, away, boost]
4x41104	SCHEDULE_SATURDAY_23	R/W	0	3		State at 23:00 on Saturday [None, home, away, boost]
4x41105	SCHEDULE_SUNDAY_00	R/W	0	3		State at 00:00 on Sunday [None, home, away, boost]
4x41106	SCHEDULE_SUNDAY_01	R/W	0	3		State at 01:00 on Sunday [None, home, away, boost]
4x41107	SCHEDULE_SUNDAY_02	R/W	0	3		State at 02:00 on Sunday [None, home, away, boost]
4x41108	SCHEDULE_SUNDAY_03	R/W	0	3		State at 03:00 on Sunday [None, home, away, boost]
4x41109	SCHEDULE_SUNDAY_04	R/W	0	3		State at 04:00 on Sunday [None, home, away, boost]
4x41110	SCHEDULE_SUNDAY_05	R/W	0	3		State at 05:00 on Sunday [None, home, away, boost]
4x41111	SCHEDULE_SUNDAY_06	R/W	0	3		State at 06:00 on Sunday [None, home, away, boost]
4x41112	SCHEDULE_SUNDAY_07	R/W	0	3		State at 07:00 on Sunday [None, home, away, boost]
4x41113	SCHEDULE_SUNDAY_08	R/W	0	3		State at 08:00 on Sunday [None, home, away, boost]
4x41114	SCHEDULE_SUNDAY_09	R/W	0	3		State at 09:00 on Sunday [None, home, away, boost]
4x41115	SCHEDULE_SUNDAY_10	R/W	0	3		State at 10:00 on Sunday [None, home, away, boost]
4x41116	SCHEDULE_SUNDAY_11	R/W	0	3		State at 11:00 on Sunday [None, home, away, boost]
4x41117	SCHEDULE_SUNDAY_12	R/W	0	3		State at 12:00 on Sunday [None, home, away, boost]
4x41118	SCHEDULE_SUNDAY_13	R/W	0	3		State at 13:00 on Sunday [None, home, away, boost]
4x41119	SCHEDULE_SUNDAY_14	R/W	0	3		State at 14:00 on Sunday [None, home, away, boost]
4x41120	SCHEDULE_SUNDAY_15	R/W	0	3		State at 15:00 on Sunday [None, home, away, boost]
4x41121	SCHEDULE_SUNDAY_16	R/W	0	3		State at 16:00 on Sunday [None, home, away, boost]
4x41122	SCHEDULE_SUNDAY_17	R/W	0	3		State at 17:00 on Sunday [None, home, away, boost]
4x41123	SCHEDULE_SUNDAY_18	R/W	0	3		State at 18:00 on Sunday [None, home, away, boost]
4x41124	SCHEDULE_SUNDAY_19	R/W	0	3		State at 19:00 on Sunday [None, home, away, boost]
4x41125	SCHEDULE_SUNDAY_20	R/W	0	3		State at 20:00 on Sunday [None, home, away, boost]
4x41126	SCHEDULE_SUNDAY_21	R/W	0	3		State at 21:00 on Sunday [None, home, away, boost]
4x41127	SCHEDULE_SUNDAY_22	R/W	0	3		State at 22:00 on Sunday [None, home, away, boost]
4x41128	SCHEDULE_SUNDAY_23	R/W	0	3		State at 23:00 on Sunday [None, home, away, boost]

VALLOX

VALLOX