



UIxxx – room unit, UXxxx - room unit with blinds control

- 50 words can be read or written at one request (i.e. 100 bytes)
- whole range can be addressed bitwise
- the whole memory is mirrored as read-only from address 0x101 (e.g. 257 dec)
- not all units support all functions (eg. humidity) – refer to the respective data sheets

This table only applies for the new LCD display version – firmware version >100! Contact technical support for the old display (firmware version <100) register table.

name	register	type	description / defaults	notes
module ID	1 LSB 1 MSB	R	module type identification UI5xx: UI 511 -> 0601hex UI 512 -> 0602hex UI 520 -> 0620hex UI 541 -> 0641hex UI 542 -> 0642hex UI 545 -> 0645hex UI 551 -> 0651hex UI 552 -> 0652hex UI 555 -> 0655hex UI 561 -> 0661hex UI 562 -> 0662hex UI 565 -> 0665hex UI 571 -> 0671hex UI 572 -> 0672hex UI 575 -> 0675hex UI 581 -> 0681hex UI 582 -> 0682hex UI 585 -> 0685hex UI 590 -> 0690hex UI6xx: UI 611 -> 0701hex UI 612 -> 0702hex UI 620 -> 0720hex UI 641 -> 0741hex UI 642 -> 0742hex UI 645 -> 0745hex UI 651 -> 0751hex UI 652 -> 0752hex UI 655 -> 0755hex UI 661 -> 0761hex UI 662 -> 0762hex UI 665 -> 0765hex UI 671 -> 0771hex UI 672 -> 0772hex UI 675 -> 0775hex UI 681 -> 0781hex UI 682 -> 0782hex UI 685 -> 0785hex UI 690 -> 0790hex	UI0xx: UI 010 -> 0200hex UI 011 -> 0201hex UI 012 -> 0202hex UI 020 -> 0220hex UI 041 -> 0241hex UI 042 -> 0242hex UI 045 -> 0245hex UI 051 -> 0251hex UI 052 -> 0252hex UI 055 -> 0255hex UI 061 -> 0261hex UI 062 -> 0262hex UI 065 -> 0265hex UI 071 -> 0271hex UI 072 -> 0272hex UI 075 -> 0275hex UI 081 -> 0281hex UI 082 -> 0282hex UI 085 -> 0285hex UI09x: UI 091 -> 0291hex UI 092 -> 0292hex UI 093 -> 0293hex UI 094 -> 0294hex UI 095 -> 0295hex UX0xx: UX 011 -> 1201hex UX 015 -> 1220hex UX 041 -> 1241hex UX 045 -> 1245hex



firmware	2 LSB 2 MSB	R	firmware version	89hex
status LSB	3 LSB	R, W RAM	module status lower byte bit 0 – write to EEPROM enabled bit 1 – SW reset enabled bit 4 – init EEPROM bit 5 – central write block (all RW registers)	Init EEPROM follows if the INIT switch was ON at power up, and if INIT switch was OFF at setting bit 4 to 1 (indicated by bit 2 in Status MSB) SW reset is set by writing to register SW reset (address 1002)
status MSB	3 MSB	R	module status upper byte bit 0 0 normal mode 1 init mode bit 1 1 at the next EEPROM write attempt will all data be written to EEPROM 0 at the next EEPROM write attempt will received data be written to RAM only bit 2 – 1 – EEPROM initialized bit 3 – central write block indication bit 4 – edit state indication bit 5 - 1 bit 6 - 0 bit 7 – 1	bit 3 – indication of central write block which is set by setting of bit 5 in reg. 3 (status LSB) bit 4 – indication of editing mode: 1 while user operates the knob, all write attempts over the bus are ignored (the same function as <i>central write block</i>) (register 23 bit 4)
Registers 4...6 for UX... and UI0... (RS485)				
address	4 LSB	R,W EEPROM	Modbus module address (default = 1)	!!! the change will be effective after restart only (however the register will be set immediately)
baud rate	4 MSB	R,W EEPROM	10dec ... 1 200 bps 11dec ... 2 400 bps 12dec ... 4 800 bps 13dec ... 9 600 bps (default) 14dec ... 19 200 bps 15dec ... 38 400 bps 16dec ... 57 600 bps 17dec ... 115 200 bps	!!! the change will be effective after restart only (however the register will be set immediately)
serial port settings	5 LSB	R,W EEPROM	serial port communication parameters (default = no parity, one stop bit: 0x00)	bit 0-1 ... parity (00 – no parity, 01 – even, 10 – odd) bit 2 ... stop bits (0 – one, 1 - two) !!! the change will be effective after restart only (however the register will be set immediately)
	5 MSB		reserved	



Register 6 for UI09x (units with CO2 sensor)				
hysteresis	6 LSB	R,W EEPROM	hysteresis for the CO2-, thermo- and hygrostat function. See register 6 MSB for controller function. The setpoints are in the set temp , set rh , or set CO2 registers (200ppm, 20%, 2,0K, 0x14)	value for: CO2-stat in 10ppm, thermostat in 0,1K, hygrostat in 1%
DO1 settings	6 MSB	R,W EEPROM	DO function: the output is active if the selected actual value is higher than setpoint (Modbus, 0x00)	bits 0-1 ... output controlled by (00 - Modbus, 01 - CO2-stat, 10 - thermostat, 11 - hygrostat)
Register 6 for UX0.. and UI0.. (except for UI09x)				
up button short pushes	6 LSB	R	number of short pushes for the „up“ button, after reaching the max value the register resets, only UX...	
up button long pushes	6 MSB	R	number of long pushes for the „up“ button, after reaching the max value the register resets, only UX...	
Registers 4...6 for UI5... and UI6... (Ethernet)				
uptime	4 LSB 4 MSB 5 LSB 5 MSB	R	uptime (s)	
firmware 2	6 LSB 6 MSB	R	Ethernet processor firmware version	
Common registers for all UI...				
relay	7 LSB	R, W RAM	relay outputs on/off (DO1-DO2)	bit 0 ... DO 1 bit 1 ... DO 2 (UX_0xx: - read-only - blinds up) bit 2 ... DO 3 (only UX_0xx: – read-only – blinds down)
latch enable	7 MSB	R, W RAM	latch enable function for individual inputs: by writing 1 into the register the particular bit in the latched value register goes to 0 and is kept until the required value is caught. After reset, the whole register is set to 0.	Resetting of the individual caught bits in the latched value register : change the particular bit from log. 0 to log.1 (disable and enable the latch function for individual bits)
time programme output	8 LSB 8 MSB	R	time scheduler output (the output value depends on the time schedule type, see the settings register	1) multistate scheduler: 0x01, 0x02, 0x04 (presence / day/night mode) 2) analogue scheduler: directly the value saved in the time schedule registers
EEPROM writes	9 LSB 9 MSB	R, EEPROM	number of EEPROM writing cycles; this register is not reset with INIT procedure, and does not overflow.	



inputs	10 LSB	R	readout of digital inputs (DI1, DI2, PUSH)	bit 0 ... DI 1 bit 1 ... DI 2 bit 2 ... PUSH button
latched values	10 MSB	R	<p>atched values</p> <p>0 – since latch enable there was no change on the bit</p> <p>1 - since latch enable the bit value has changed its state</p>	bit 0 ... DI 1 bit 1 ... DI 2 bit 2 ... PUSH button; to reset the bits, disable and enable latch - see latch enable
set temp	11 LSB 11 MSB	R,W EEPROM	<p>temperature set by user (UI09x temperature setpoint value for thermostat function)</p> <p>e.g. 21.5°C reads 2150</p> <p>(default = 23 °C; 0x08FC)</p>	<p>recalculate: set temperature = read value / 100</p> <p>0 ... 0 199.99 ... 19999 -0.01 ... 0FFFFhex -199.99 ... 0B1E1hex</p>
set day /comfort temp	12 LSB 12 MSB	R,W EEPROM	<p>day mode temperature setpoint set by user (when editing, the symbols <i>thermometer</i> and <i>sun</i> are active)</p> <p>(default = 23 °C; 0x08FC)</p>	<p>recalculate: set temperature = read value / 100</p> <p>0 ... 0 199.99 ... 19999 -0.01 ... 0FFFFhex -199.99 ... 0B1E1hex</p>
set night /precomfort temp	13 LSB 13 MSB	R,W EEPROM	<p>night mode temperature setpoint set by user (when editing, the symbols <i>thermometer</i> and <i>moon</i> are active)</p> <p>(default = 18 °C, 0x0708)</p>	<p>recalculate: set temperature = read value / 100</p> <p>0 ... 0 199.99 ... 19999 -0.01 ... 0FFFFhex -199.99 ... 0B1E1hex</p>
set outside /depression temp	14 LSB 14 MSB	R,W EEPROM	<p>set outside temperature (at which heating may be enabled), step and resolution is fixed to 1 °C (when editing, the symbols <i>thermometer</i> and <i>house</i> are active)</p> <p>(default = 15 °C, 0x05DC)</p>	<p>recalculate: set temperature = read value / 100</p> <p>0 ... 0 199.99 ... 19999 -0.01 ... 0FFFFhex -199.99 ... 0B1E1hex</p>
set DHW temp	15 LSB 15 MSB	R,W EEPROM	<p>DHW setpoint temperature, step and resolution is fixed to 1 °C (when editing, the symbols <i>thermometer</i> and <i>water tap</i> are active)</p> <p>(default = 50 °C, 0x1388)</p>	<p>recalculate: set temperature = read value / 100</p> <p>0 ... 0 199.99 ... 19999 -0.01 ... 0FFFFhex -199.99 ... 0B1E1hex</p>
set heating curve	16 LSB	R,W EEPROM	<p>heating curve type set by user (when editing, the symbols <i>heating</i> and <i>boiler</i> are active)</p> <p>(default = 1)</p>	set value = 1 .. 4
	16 MSB		reserved	



actual temp	17 LSB 17 MSB	R	actual temperature measured by the internal sensor incl. correction (see corr temp)	recalculate: temperature = read value / 100 0 ... 0 199.99 ... 19999 -0.01 ... 0FFFFhex -199.99 ... 0B1E1hex
set rh	18 LSB 18 MSB	R,W EEPROM	relative humidity set by user (UI09x humidity setpoint value for hygrostat function) (default = 40 %, 0x0FA0)	recalculate: humidity = read value / 100 0 ... 0 100.00 ... 10000
actual rh	19 LSB 19 MSB	R	actual relative humidity measured by the internal sensor, incl. correction (see corr rh sensor) (only for types containing humidity sensor)	recalculate: humidity = read value / 100 0 ... 0 100.00 ... 10000
set presence mode	20 LSB	R,W EEPROM	presence mode set by user (for hotels) The register is to be set by 16 bit writing command. The time program has 3 states: Comfort, Standby, Off. Its output is in the time programme output register. When the Presence time program type is defined, required states should be enabled in the register presence mode edit mask (67 LSB). (default = 0x00)	bit 0 ... comfort (occupied house) bit 1 ... standby (empty house) bit 2 ... off (Off) bit 3 ... party (occupied house + drink) bit 4 ... auto (clock), time schedule (if enabled) bit 5 ... holiday (clock + empty house) bit 6 ... reserved bit 7 ... disable writing (0 – value will be written to EEPROM, 1 – writing disabled.)
set day/night mode	20 MSB	R,W EEPROM	day/night mode set by user (for residential applications) The register is to be set by 16 bit writing command. The time program has 3 states: Day auto, Night auto, Off. Its output is in the time programme output register. When the Day/Night time program type is defined, required states should be enabled in the register Day/Night mode edit mask (67 LSB). (default = 0x00)	bit 0 ... day auto (clock, sun) bit 1 ... night auto (clock, moon) bit 2 ... day manual (sun) bit 3 ... night manual (moon) bit 4 ... off (Off) bit 5 ... auto (clock), time schedule (if enabled) bit 6 ... holiday (clock + house) bit 7 ... disable writing (0 – value will be written to EEPROM, 1 – writing disabled.)



set fan mode	21 LSB	R,W EEPROM	fan mode set by user (for fancoils, convectors, AHUs) The register is to be set by 16 bit writing command. (default = 0x00)	bit 0 ... Auto (fan + A) bit 1 ... Man Off (fan + M) bit 2 ... Man 1 (fan + M + Stage 1) bit 3 ... Man 2 (fan + M + Stage 1,2) bit 4 ... Man 3 (fan + M + Stage 1,2,3) bit 5 to 6 ... reserved bit 7 ... disable writing (0 – value will be written to EEPROM, 1 – writing disabled.)
set heat/cool mode	21 MSB	R,W EEPROM	heat/cool mode set by user (for split units, heat pumps etc.) The disable writing bit may be used to write selectively (only when the presence mode value changes) as EEPROM is not suitable for permanent writing. This bit is not written to the register. The register is to be set by 16 bit writing command.	bit 0 ... off (Off) bit 1 ... heat only (Heat) bit 2 ... cool only (Cool) bit 3 ... fan only (Fan) bit 4 ... auto (Heat + Cool) bit 5 to 6 ... reserved bit 7 ... disable writing (0 – value will be written to EEPROM, 1 – writing disabled.)
set user pattern mode	22 LSB	R,W EEPROM	state of user defined mode (for each mode, the complete symbol set may be redefined) – see user pattern x symbols x , writing must follow by a 16-bit command	bit 0 ... user_1_pattern bit 1 ... user_2_pattern bit 2 ... user_3_pattern bit 3 ... user_4_pattern bit 4 ... user_5_pattern bit 5...6 reserved bit 7 ... disable writing (0 – value will be written to EEPROM, 1 – writing disabled.)
write protect delay	22 MSB	R, W, EEPROM	write protect time in seconds after user knob operation (default = 10 s, 0x0A) (This protection time prevents the PLC from overriding the values set manually by the knob.)	0 = off



settings	23 LSB 23 MSB	R,W EEPROM	Modbus frame part receiving: end of frame is given either by the timeout since last character (see mb timeout), i.e. only part of the frame may be received, or the complete received frame (checked during receiving). knob steps: number of steps to invoke value change by the defined step (default: °C, part receiving off, password protection off, CO2 in %, presence time programme, autocalibration on, 2 steps, 1 step, 0x1250)	bit 0 ... (0 – temperature display in °C, 1 – in °F; applies to LCD display only, communication is always in °C) bit 1... Modbus frame part receiving (change applies after restart) : 0- off, 1- on bit 2-3 ... time schedule type (0 - off, 1 - presence, 2 - day-night, 3 - analogue) bit 4 ... write protection (0 - off, 1 - on) bit 5 ... CO2 unit display: 0 - %, 1 - ppm bit 6 – autocalibration for CO2 sensors bit 7 ... reserved bit 8-11 ... knob steps in short edit mode bit 12-15 ... knob steps in long edit mode
latch state	24 LSB	R,W EEPROM	state to be latched 0 – log. 0 (default) 1 – log. 1	bit 0 ... DI 1 bit 1 ... DI 2 bit 2 ... PUSH button (fixed to 1 – push of the button)
relay comm	24 MSB	R,W EEPROM	0 – no state change on communication failure (default) 1 – on communication failure (see comm timeout) the output value will be set to relay commfail state (default = 0)	bit 0 ... DO 1 bit 1 ... DO 2
relay commfail state	25 LSB	R,W EEPROM	on commfail timeout and relay comm set to 1 the outputs are set to relay commfail state (default = 0)	bit 0 ... DO 1 bit 1 ... DO 2
comm timeout	25 MSB	R,W EEPROM	time [secs] of non-communication which is recognized as communication failure (default = 0). On comfail, outputs go to predefined states (see relay comm) and alarm bell symbol is activated on the display.	if the value is set to 0, no comm fail function is implemented
output power up enable	26 LSB	R,W EEPROM	startup function enable 0 – no setting of outputs after power up until first communication 1 – the outputs go to the output start values after power up until the first outputs command is received (default = 0)	bit 0 ... DO 1 bit 1 ... DO 2 May be used for commissioning.
output start	26 MSB	R,W EEPROM	output status at power up, only active if output power up enable (default = 0)	bit 0 ... DO 1 bit 1 ... DO 2



min temp	27 LSB 27 MSB	R,W EEPROM	minimum temperature which user can set as setpoint for temp, day and night -199.99 to 199.99 (default = 18°C, 0x0708)	recalculate: temperature = read value / 100 0 ... 0 199.99 ... 19999 -0.01 ... 0FFFFhex -199.99 ... 0B1E1hex
max temp	28 MSB 28 MSB	R,W EEPROM	maximum temperature which user can set as setpoint for temp, day and night -199.99 to 199.99 (default = 26°C, 0x0A28)	recalculate: temperature = read value / 100 0 ... 0 199.99 ... 19999 -0.01 ... 0FFFFhex -199.99 ... 0B1E1hex
min outside temp	29 LSB 29 MSB	R,W EEPROM	minimum outside temperature which user can set as setpoint for heating enable -199.99 to 199.99 (default = -20°C, 0xF830)	recalculate: temperature = read value / 100 0 ... 0 199.99 ... 19999 -0.01 ... 0FFFFhex -199.99 ... 0B1E1hex
max outside temp	30 MSB 30 MSB	R,W EEPROM	maximum outside temperature which user can set as setpoint for heating enable -199.99 to 199.99 (default = 30°C, 0x0BB8)	recalculate: temperature = read value / 100 0 ... 0 199.99 ... 19999 -0.01 ... 0FFFFhex -199.99 ... 0B1E1hex
min DHW temp	31 LSB 31 MSB	R,W EEPROM	minimum temperature which user can set as setpoint for DHW -199.99 to 199.99 (default = 10°C, 0x03E8)	recalculate: temperature = read value / 100 0 ... 0 199.99 ... 19999 -0.01 ... 0FFFFhex -199.99 ... 0B1E1hex
max DHW temp	32 MSB 32 MSB	R,W EEPROM	maximum temperature which user can set as setpoint for DHW -199.99 to 199.99 (default = 90°C, 0x2328)	recalculate: temperature = read value / 100 0 ... 0 199.99 ... 19999 -0.01 ... 0FFFFhex -199.99 ... 0B1E1hex
corr temp	33 MSB 33 MSB	R,W EEPROM	correction: adds to the actual temperature measured by the internal sensor; compensates the internal thermal dissipation -20.00 to 20.00 (default = about -1.5°C, depending on module type)	recalculate: temperature = read value / 100 0 ... 0 199.99 ... 19999 -0.01 ... 0FFFFhex -199.99 ... 0B1E1hex



min rh	34 LSB 34 MSB	R,W EEPROM	minimum humidity which user can set as setpoint 0.00% to 100.00% (default = 10%, 0x03E8)	recalculate: humidity = read value / 100 0 ... 0 100.00 ... 10000
max rh	35 LSB 35 MSB	R,W EEPROM	maximum humidity which user can set as setpoint 0.00% to 100.00% (default = 90%, 0x2328)	recalculate: humidity = read value / 100 0 ... 0 100.00 ... 10000
corr rh	36 LSB 36 MSB	R,W EEPROM	correction: adds to the actual humidity measured by the internal sensor (applicable for types with humidity sensor only) -10.00 to 10.00 % (default = 0)	recalculate: humidity = read value / 100 0 ... 0 199.99 ... 19999 -0.01 ... 0FFFFhex -199.99 ... 0B1E1hex
min remote 0	37 LSB 37 MSB	R,W EEPROM	minimum value which user can set as remote 0 -199.99 to 199.99 (default = -199.99)	recalculate: remote value = read value / 100 0 ... 0 199.99 ... 19999 -0.01 ... 0FFFFhex -199.99 ... 0B1E1hex
max remote 0	38 LSB 38 MSB	R,W EEPROM	maximum value which user can set as remote 0 -199.99 to 199.99 (default = 199.99)	recalculate: remote value = read value / 100 0 ... 0 199.99 ... 19999 -0.01 ... 0FFFFhex -199.99 ... 0B1E1hex
min remote 1	39 LSB 39 MSB	R,W EEPROM	minimum value which user can set as remote 1 -199.99 to 199.99 (default = -199.99)	recalculate: remote value = read value / 100 0 ... 0 199.99 ... 19999 -0.01 ... 0FFFFhex -199.99 ... 0B1E1hex
max remote 1	40 LSB 40 MSB	R,W EEPROM	maximum value which user can set as remote 1 -199.99 to 199.99 (default = 199.99)	recalculate: remote value = read value / 100 0 ... 0 199.99 ... 19999 -0.01 ... 0FFFFhex -199.99 ... 0B1E1hex
min remote 2	41 LSB 41 MSB	R,W EEPROM	minimum value which user can set as remote 2 -199.99 to 199.99 (default = -199.99)	recalculate: remote value = read value / 100 0 ... 0 199.99 ... 19999 -0.01 ... 0FFFFhex -199.99 ... 0B1E1hex



max remote 2	42 LSB 42 MSB	R,W EEPROM	maximum value which user can set as remote 2 -199.99 to 199.99 (default = 199.99)	recalculate: remote value = read value / 100 0 ... 0 199.99 ... 19999 -0.01 ... 0FFFFhex -199.99 ... 0B1E1hex
min remote 3	43 LSB 43 MSB	R,W EEPROM	minimum value which user can set as remote 3 -199.99 to 199.99 (default = -199.99)	recalculate: remote value = read value / 100 0 ... 0 199.99 ... 19999 -0.01 ... 0FFFFhex -199.99 ... 0B1E1hex
max remote 3	44 LSB 44 MSB	R,W EEPROM	maximum value which user can set as remote 3 -199.99 to 199.99 (default = 199.99)	recalculate: remote value = read value / 100 0 ... 0 199.99 ... 19999 -0.01 ... 0FFFFhex -199.99 ... 0B1E1hex
min remote 4	45 LSB 45 MSB	R,W EEPROM	minimum value which user can set as remote 4 -199.99 to 199.99 (default = -199.99)	recalculate: remote value = read value / 100 0 ... 0 199.99 ... 19999 -0.01 ... 0FFFFhex -199.99 ... 0B1E1hex
max remote 4	46 LSB 46 MSB	R,W EEPROM	maximum value which user can set as remote 4 -199.99 to 199.99 (default = 199.99)	recalculate: remote value = read value / 100 0 ... 0 199.99 ... 19999
min analogue time programme value	47 LSB 47 MSB	R,W EEPROM	minimum value which user can set as analogue time schedule value 0 to 199.99 (default = 5.0, 0x01F4)	recalculate: remote value = read value / 100 0 ... 0 199.99 ... 19999
max analogue time programme value	48 LSB 48 MSB	R,W EEPROM	maximum value which user can set as analogue time schedule value 0 to 199.99 (default = 36.0, 0x0E10)	recalculate: remote value = read value / 100 0 ... 0 199.99 ... 19999 -0.01 ... 0FFFFhex -199.99 ... 0B1E1hex
dec places 1	49 LSB 49 MSB	R,W EEPROM	LSB number of decimals for temperature display (default = 1) MSB number of decimals for temperature setting (default = 1)	0 ... no (##) 1 ... one (##.#) 2 ... two (##.##)



dec places 2	50 LSB 50 MSB	R,W EEPROM	LSB number of decimals for humidity display (default = 0) MSB number of decimals for humidity setting (default = 0)	0 ... no (##) 1 ... one (##.#) 2 ... two (##.##)
dec places 3	51 LSB 51 MSB	R,W EEPROM	LSB number of decimals for remote 0 display (default = 2) MSB number of decimals for remote 0 setting (default = 2)	0 ... no (##) 1 ... one (##.#) 2 ... two (##.##)
dec places 4	52 LSB 52 MSB	R,W EEPROM	LSB number of decimals for remote 1 display (default = 2) MSB number of decimals for remote 1 setting (default = 2)	0 ... no (##) 1 ... one (##.#) 2 ... two (##.##)
dec places 5	53 LSB 53 MSB	R,W EEPROM	LSB number of decimals for remote 2 display (default = 2) MSB number of decimals for remote 2 setting (default = 2)	0 ... no (##) 1 ... one (##.#) 2 ... two (##.##)
dec places 6	54 LSB 54 MSB	R,W EEPROM	LSB number of decimals for remote 3 display (default = 2) MSB number of decimals for remote 3 setting (default = 2)	0 ... no (##) 1 ... one (##.#) 2 ... two (##.##)
dec places 7	55 LSB 55 MSB	R,W EEPROM	LSB number of decimals for remote 4 display (default = 2) MSB number of decimals for remote 4 setting (default = 2)	0 ... no (##) 1 ... one (##.#) 2 ... two (##.##)
dec places analogue time programme	56 LSB	R,W EEPROM	LSB number of decimals for analogue time schedule display (default = 1)	0 ... no (##) 1 ... one (##.#) 2 ... two (##.##)
step minutes	56 MSB	R,W EEPROM	step in minutes for setting time with a knob in time schedules (default = 5 min, 0x05)	
step 1	57 LSB 57 MSB	R,W EEPROM	LSB step for temperature settings (default = 0.5 °C) MSB step for humidity settings (default = 1 %)	step = value / 100 1 ... 0.01 2 ... 0.02 10 ... 0.1 etc.
step 2	58 LSB 58 MSB	R,W EEPROM	LSB step for remote 0 settings (default = 1) MSB step for remote 1 settings (default = 1)	step = value / 100 1 ... 0.01 2 ... 0.02 10 ... 0.1 etc.
step 3	59 LSB 59 MSB	R,W EEPROM	LSB step for remote 2 settings (default = 1) MSB step for remote 3 settings (default = 1)	step = value / 100 1 ... 0.01 2 ... 0.02 10 ... 0.1 etc.
step 4	60 LSB	R,W EEPROM	LSB step for remote 4 settings (default = 1)	step = value / 100 1 ... 0.01 2 ... 0.02 10 ... 0.1 etc.
step time programme	60 MSB	R,W EEPROM	MSB step for analogue time schedule settings (default = 0.5, 0x32)	step = value / 100 1 ... 0.01 2 ... 0.02 10 ... 0.1 etc.



mb timeout	61 LSB	R,W EEPROM	time from the last character in the Modbus frame (in 5 ms) after which comes a timeout (range 5...180 ms, default 50 ms = 0x0A)	see register settings , frame part receiving Example: 10 = 50 ms
mb answer delay	61 MSB	R,W EEPROM	time to delay the answer to Modbus master, in 5 ms (default = 0 ms)	Example: 10 = 50 ms
show mode	62 LSB 62 MSB	R,W EEPROM	data that roll on the LCD display (default = temperature, 1) If only one of the bits is active there is only one value displayed. Otherwise they change periodically after show time .	bit 0 ... temperature °C/°F bit 1 ... humidity bit 2 ... current time bit 3 ... day temp bit 4 ... night temp bit 5 ... outside temp bit 6 ... DHW temp bit 7 ... heating curve bit 8 ... remote 0 bit 9 ... remote 1 bit 10 ... remote 2 bit 11 ... remote 3 bit 12 ... remote 4 bit 13 ... time programme output bit 14: ... CO2 bit 15: ... set temperature
show time	63 LSB	R,W EEPROM	time (in 100 ms) to display each value in show mode (default = 2 s, 0x14)	if 0, periodic change disabled
edit return time	63 MSB	R,W EEPROM	time (in 100 ms) of user inactivity to return from edit mode to show mode (default = 10 s, 0x64)	
quick edit value	64 LSB	R,W EEPROM	value which is set by turning the knob. The value must be enabled for editing at allowed operation modes . (default = temperature, 0x00)	0 ... temperature 1 ... humidity 2 ... day temp 3 ... night temp 4 ... outside temp 5 ... DHW temp 6 ... heating curve 7 ... remote 0 8 ... remote 1 9 ... remote 2 10 ... remote 3 11 ... remote 4
quick edit mode number	64 MSB	R,W EEPROM	number of mode which is editable through quick edit menu (short push of the knob). „Change show mode“ changes between displayed values (see show mode); pushing the knob displays the first value from the show mode register. (default = 0)	0 ... no PUSH function 1 ... presence mode 2 ... day/night mode 3 ... fan 4 ... heat/cool mode 5 ... change show mode 6 ... user pattern mode (see allowed operation modes)



long push time	65 LSB	R,W EEPROM	time (in 100 ms) evaluated as <i>long push</i> (go to settings menu / leave settings menu). <i>Super long push</i> (time schedule edit) follows 2 secs after <i>long push</i> . If there is no value editable in the <i>long push</i> , then time schedule is edited right away after <i>long push</i> . (default = 1.5 s, 0x0F)	
allowed operation modes 2	65 MSB	R,W EEPROM	operation modes that user is able to set in the settings menu 0 ... disabled 1 ... enabled (default = 0, none of them)	bit 0 ... time schedule bit 1 ... time bit 2 ... user pattern mode bits 3 ... 7 - reserved
allowed operation modes	66 LSB 66 MSB	R,W EEPROM	operation modes that user is able to set in the settings menu 0 ... disabled 1 ... enabled (default = 1, temperature)	bit 0 ... temperature bit 1 ... humidity bit 2 ... day temp bit 3 ... night temp bit 4 ... outside temp bit 5 ... DHW temperature bit 6 ... fan bit 7 ... heating curve bit 8 ... presence mode bit 9 ... day/night mode bit 10 ... heat/cool mode bit 11 ... remote 0 bit 12 ... remote 1 bit 13 ... remote 2 bit 14 ... remote 3 bit 15 ... remote 4
presence mode edit mask	67 LSB	R,W EEPROM	states in presence mode that user is able to switch between (default = 0, no states)	bit 0 ... comfort (occupied house) bit 1 ... standby (empty house) bit 2 ... off (Off) bit 3 ... party (occupied house + drink) bit 4 ... auto (clock) bit 5 ... holiday (clock + empty house)
day/night mode edit mask	67 MSB	R,W EEPROM	states in day / night mode that user is able to switch between (default = 0, no states)	bit 0 ... day auto (clock + sun) bit 1 ... night auto (clock + moon) bit 2 ... day manual (sun) bit 3 ... night manual (moon) bit 4 ... off (Off) bit 5 ... auto (clock) bit 6 ... holiday (clock + empty house)



fan mode edit mask	68 LSB	R,W EEPROM	states in fan mode that user is able to switch between (default = 0, no states)	bit 0 ... Auto (fan + A) bit 1 ... Man Off (fan + M) bit 2 ... Man 1 (fan + M + Stage 1) bit 3 ... Man 2 (fan + M + Stage 1,2) bit 4 ... Man 3 (fan + M + Stage 1,2,3)
heat/cool mode edit mask	68 MSB	R,W EEPROM	states in heat / cool mode that user is able to switch between (default = 0, no states)	bit 0 ... off (Off) bit 1 ... heat only (heat) bit 2 ... cool only (cool) bit 3 ... fan only (fan) bit 4 ... auto (heat + cool)
user pattern mode edit mask	69 LSB	R,W EEPROM	states in user pattern mode that user is able to switch between (default = 0, no states)	bit 0 ... user_1_pattern bit 1 ... user_2_pattern bit 2 ... user_3_pattern bit 3 ... user_4_pattern bit 4 ... user_5_pattern
	69 MSB		reserved	
Register 70 for UI09x				
set CO2	70 LSB 70 MSB	R, W, EEPROM	CO2 setpoint for the function of CO2-stat (see reg. 6, DO1 settings) (default = 1200 ppm, 0x04B0)	in ppm
Register 70 for UX0.. and UI0.. (except for UI09x)				
down button short pushes	70 LSB	R	number of short pushes for the „down“ button, after reaching the max value the register resets, only UX...	
down button long pushes	70 MSB	R	number of long pushes for the „down“ button, after reaching the max value the register resets, only UX...	
remote/local symbols 0	71 LSB 71 MSB	R,W RAM	0 ... symbol controlled locally (symbols cannot be written remotely from Modbus, data are ignored) 1 ... symbol controlled remotely – symbols are not controlled by user (by internal UI... functions); this applies for basic values, i.e. all except remote_x (register 81 and below) Use remote control to set individual symbols from your PLC.	bit 0 ... clock bit 1 ... temp. sensor bit 2 ... house bit 3 ... person bit 4 ... moon bit 5 ... sun bit 6 ... off bit 7 ... drink bit 8 ... heat bit 9 ... cool bit 10 ... water tap (DHW) bit 11 ... spanner (service) bit 12 ... boiler bit 13 ... alarm bell bit 14 ... fan lower bit 15 ... fan upper



remote/local symbols 1	72 LSB 72 MSB	R,W RAM	<p>0 ... symbol controlled locally (symbols cannot be written remotely from Modbus, data are ignored)</p> <p>1 ... symbol controlled remotely – symbols are not controlled by user (by internal UI... functions); this applies for basic values, i.e. all except remote_x (register 81 and below)</p> <p>Use remote control to set individual symbols from your PLC.</p>	<p>bit 0 ... °C</p> <p>bit 1 ... °F</p> <p>bit 2 ... %</p> <p>bit 3 ... rH</p> <p>bit 4 ... 1 (weekday)</p> <p>bit 5 ... 2 (weekday)</p> <p>bit 6 ... 3 (weekday)</p> <p>bit 7 ... 4 (weekday)</p> <p>bit 8 ... 5 (weekday)</p> <p>bit 9 ... 6 (weekday)</p> <p>bit 10 ... 7 (weekday)</p> <p>bit 11 ... fan auto</p> <p>bit 12 ... fan manual</p> <p>bit 13 ... fan speed 1</p> <p>bit 14 ... fan speed 2</p> <p>bit 15 ... fan speed 3</p>
remote/local symbols 2	73 LSB 73 MSB	R,W RAM	<p>0 ... symbol controlled locally (symbols cannot be written remotely from Modbus, data are ignored)</p> <p>1 ... symbol controlled remotely – symbols are not controlled by user (by internal UI... functions); this applies for basic values, i.e. all except remote_x (register 81 and below)</p> <p>Use remote control to set individual symbols from your PLC.</p>	<p>bit 0 ... SETTING</p> <p>bit 1 ... ERROR</p> <p>bit 2 ... No.</p> <p>bit 3 ... small 7-segment (upper right corner)</p>
display symbols 0	74 LSB 74 MSB	R,W RAM	<p>displayed symbols for basic values including remote_x</p>	<p>bit 0 ... clock</p> <p>bit 1 ... temp. sensor</p> <p>bit 2 ... house</p> <p>bit 3 ... person</p> <p>bit 4 ... moon</p> <p>bit 5 ... sun</p> <p>bit 6 ... off</p> <p>bit 7 ... drink</p> <p>bit 8 ... heat</p> <p>bit 9 ... cool</p> <p>bit 10 ... water tap (DHW)</p> <p>bit 11 ... spanner (service)</p> <p>bit 12 ... boiler</p> <p>bit 13 ... alarm bell</p> <p>bit 14 ... fan lower</p> <p>bit 15 ... fan upper</p>



display symbols 1	75 LSB 75 MSB	R,W RAM	displayed symbols for basic values including remote_x	bit 0 ... °C bit 1 ... °F bit 2 ... % bit 3 ... rH bit 4 ... 1 (weekday) bit 5 ... 2 (weekday) bit 6 ... 3 (weekday) bit 7 ... 4 (weekday) bit 8 ... 5 (weekday) bit 9 ... 6 (weekday) bit 10 ... 7 (weekday) bit 11 ... fan auto bit 12 ... fan manual bit 13 ... fan speed 1 bit 14 ... fan speed 2 bit 15 ... fan speed 3
display symbols 2	76 LSB 76 MSB	R,W RAM	displayed symbols for basic values including remote_x	bit 0 ... SETTING bit 1 ... ERROR bit 2 ... No. bit 3 ... small 7-segment (upper right corner) bit 4-7 ... reserved bit 8-15 ... small 7-segment value, if larger than 9, „h“ is displayed
RTC	77 LSB 77 MSB 78 LSB 78 MSB 79 LSB 79 MSB 80 LSB 80 MSB	R,W EEPROM	Real time clock (only implemented in selected types) in BCD coding	see table below. To write to those registers, EEPROM write must be enabled in the status LSB register.
remote 0	81 LSB 81 MSB	R,W EEPROM	remote 0 value	recalculate: remote value = read value / 100 0 ... 0 199.99 ... 19999 -0.01 ... 0FFFFhex -199.99 ... 0B1E1hex
remote 0 symbols 0	82 LSB 82 MSB	R,W EEPROM	symbols displayed for remote 0	see register display symbols 0
remote 0 symbols 1	83 LSB 83 MSB	R,W EEPROM	symbols displayed for remote 0	see register display symbols 1
remote 0 symbols 2	84 LSB 84 MSB	R,W EEPROM	symbols displayed for remote 0	see register display symbols 2
remote 1	85 LSB 85 MSB	R,W EEPROM	remote 1 value	see remote 0
remote 1 symbols 0	86 LSB 86 MSB	R,W EEPROM	symbols displayed for remote 1	see remote 0, symbols 0
remote 1 symbols 1	87 LSB 87 MSB	R,W EEPROM	symbols displayed for remote 1	see remote 0, symbols 1
remote 1 symbols 2	88 LSB 88 MSB	R,W EEPROM	symbols displayed for remote 1	see remote 0, symbols 2



remote 2	89 LSB 89 MSB	R,W EEPROM	remote 2 value	see remote 0
remote 2 symbols 0	90 LSB 90 MSB	R,W EEPROM	symbols displayed for remote 2	see remote 0, symbols 0
remote 2 symbols 1	91 LSB 91 MSB	R,W EEPROM	symbols displayed for remote 2	see remote 0, symbols 1
remote 2 symbols 2	92 LSB 92 MSB	R,W EEPROM	symbols displayed for remote 2	see remote 0, symbols 2
remote 3	93 LSB 93 MSB	R,W EEPROM	remote 3 value	see remote 0
remote 3 symbols 0	94 LSB 94 MSB	R,W EEPROM	symbols displayed for remote 3	see remote 0, symbols 0
remote 3 symbols 1	95 LSB 95 MSB	R,W EEPROM	symbols displayed for remote 3	see remote 0, symbols 1
remote 3 symbols 2	96 LSB 96 MSB	R,W EEPROM	symbols displayed for remote 3	see remote 0, symbols 2
remote 4	97 LSB 97 MSB	R,W EEPROM	remote 4 value	see remote 0
remote 4 symbols 0	98 LSB 98 MSB	R,W EEPROM	symbols displayed for remote 4	see remote 0, symbols 0
remote 4 symbols 1	99 LSB 99 MSB	R,W EEPROM	symbols displayed for remote 4	see remote 0, symbols 1
remote 4 symbols 2	100 LSB 100 MSB	R,W EEPROM	symbols displayed for remote 4	see remote 0, symbols 2
program Monday 1, time	101 LSB 101 MSB	R, W, EEPROM	time schedule, Monday, event 1 time in minutes since 0:00 default = 06:00, 0x0168	121 ... 02 h 01 min
program Monday 1, value	102 LSB 102 MSB	R, W, EEPROM	time schedule, Monday, event 1 (valid for all schedule types: if bit 15 set to 1, event is not active) default = day, 0x0000	state scheduler: 0 ... day / comfort 1 ... night / standby 2 ... off analogue scheduler: value 0 to 19999dec, i. e. 0.0 to 199.99 °C bit 15 ... event disabled
program Monday 2, time	103 LSB 103 MSB	R, W, EEPROM	time schedule, Monday, event 2 time in minutes since 0:00 default = 08:00, 0x01E0	see program Monday 1, time
program Monday 2, value	104 LSB 104 MSB	R, W, EEPROM	time schedule, Monday, event 2 (valid for all schedule types: if bit 15 set to 1, event is not active) default = night, 0x0001	see program Monday 1, value
program Monday 3, time	105 LSB 105 MSB	R, W, EEPROM	time schedule, Monday, event 3 time in minutes since 0:00 (default = 14:00, 0x0348	see program Monday 1, time



program Monday 3, value	106 LSB 106 MSB	R, W, EEPROM	time schedule, Monday, event 3 (valid for all schedule types: if bit 15 set to 1, event is not active) default = day, 0x0000	see program Monday 1, value
program Monday 4, time	107 LSB 107 MSB	R, W, EEPROM	time schedule, Monday, event 4 time in minutes since 0:00 default 22:00, 0x0528	see program Monday 1, time
program Monday 4, value	108 LSB 108 MSB	R, W, EEPROM	time schedule, Monday, event 4 (valid for all schedule types: if bit 15 set to 1, event is not active) default = night, 0x0001	see program Monday 1, value
program Monday 5, time	109 LSB 109 MSB	R, W, EEPROM	time schedule, Monday, event 5 time in minutes since 0:00 default = 06:00, 0x0168	see program Monday 1, time
program Monday 5, value	110 LSB 110 MSB	R, W, EEPROM	time schedule, Monday, event 5 (valid for all schedule types: if bit 15 set to 1, event is not active) default = disabled, 0x8000	see program Monday 1, value
program Monday 6, time	111 LSB 111 MSB	R, W, EEPROM	time schedule, Monday, event 6 time in minutes since 0:00 default = 06:00, 0x0168	see program Monday 1, time
program Monday 6, value	112 LSB 112 MSB	R, W, EEPROM	time schedule, Monday, event 6 (valid for all schedule types: if bit 15 set to 1, event is not active) default = disabled, 0x8000	see program Monday 1, value
program Tuesday 1, time	113 LSB 113 MSB	R, W, EEPROM	time schedule, Tuesday, event 1 time in minutes since 0:00 default = 06:00, 0x0168	see program Monday 1, time
...
program Sunday 6, value	184 LSB 184 MSB	R, W, EEPROM	time schedule, Sunday, event 6 (valid for all schedule types: if bit 15 set to 1, event is not active) default = disabled, 0x8000	see program Monday 1, value
user 1 pattern symbols 0	185 LSB 185 MSB	R, W, EEPROM	symbols for user 1 pattern default = 0x0000	bit 0 ... clock bit 1 ... temp. sensor bit 2 ... house bit 3 ... person bit 4 ... moon bit 5 ... sun bit 6 ... off bit 7 ... drink bit 8 ... heat bit 9 ... cool bit 10 ... water tap (DHW) bit 11 ... spanner (service) bit 12 ... boiler bit 13 ... alarm bell bit 14 ... fan lower bit 15 ... fan upper



user 1 pattern symbols 1	186 LSB 186 MSB	R, W, EEPROM	symbols for user 1 pattern default = 0x0000	bit 0 ... °C bit 1 ... °F bit 2 ... % bit 3 ... rH bit 4 ... 1 (weekday) bit 5 ... 2 (weekday) bit 6 ... 3 (weekday) bit 7 ... 4 (weekday) bit 8 ... 5 (weekday) bit 9 ... 6 (weekday) bit 10 ... 7 (weekday) bit 11 ... fan auto bit 12 ... fan manual bit 13 ... fan speed 1 bit 14 ... fan speed 2 bit 15 ... fan speed 3
user 1 pattern symbols 2	187 LSB 187 MSB	R, W, EEPROM	symbols for user 1 pattern default = 0x0000	bit 0 ... SETTING bit 1 ... ERROR bit 2 ... No. bit 3 ... small 7-segment (upper right corner) bit 4-7 ... reserved bit 8-15 ... small 7- segment value, if larger than 9, „h“ is displayed
user 2 pattern symbols 0	188 LSB 188 MSB	R, W, EEPROM	symbols for user 2 pattern default = 0x0000	see user 1 pattern symbols 0
...
user 5 pattern symbols 2	199 LSB 199 MSB	R, W, EEPROM	symbols for user 5 pattern default = 0x0000	see user 1 pattern symbols 2
Registers 200 to 204 for UX0...				
actual position	200 LSB	R, RAM	actual position of the blinds (when blinds move, update after 1 s)	in %, 0...100 %
	200 MSB		reserved	
manual control	201 LSB	R, W, RAM	manual blinds control: if the corresponding bit is 1, blinds are commanded remotely and local control is disabled (see position command)	bit 0 ... blinds
position command	201 MSB	R, W, RAM	manual blinds settings, the action is performed only at value change (and if enabled in manual control)	in %, 0...100 % (0% - blinds up, 100% - blinds down)
sunblind settings	202 LSB	R, W, EEPROM	blinds configuration (default: no action, 0x00)	bits 0...1: command after restart (0 – no action, 1 – up, 2 – down)
rotation time	202 MSB	R, W, EEPROM	time for rotating the blinds by 180 ° (default: 1.2 s, 0x0C)	in 0.1 s
whole position time	203 LSB	R, W, EEPROM	time of transit time between Up and Down positions (default: 70 s, 0x46)	in secs, 1...255



switch short time	203 MSB	R, W, EEPROM	time to distinguish between short and long push for blinds control (short: rotation by move short time , long – transit to end position) (default: 0.5 s, 0x05)	in 0.1 s
move short time	204 LSB	R, W, EEPROM	time to rotate the blinds when short push (default: 0.2 s, 0x02)	in 0.1 s, 1...25.5 s
waiting time up/down	204 MSB	R, W, EEPROM	pause time between up and down direction change – to protect the motors (default: 0.7 s, 0x07)	in 0.1 s, 0.6 ... 3.0 s

Registers 200 to 204 for UI09x

actual CO2 ppm	200 LSB, 200 MSB	R, RAM	actual CO2 value incl. correction (CO2 sensor corr)	in ppm
actual CO2 %	201 LSB,	R, RAM	actual CO2 value in %, see 100% CO2 ppm value, 0% CO2 ppm value . The 100% CO2 ppm value may be lower than the 0% CO2 ppm value .	in %
	201 MSB		reserved	
100% CO2 ppm value	202 LSB, 202 MSB	R,W EEPROM	CO2 value in ppm which corresponds 100 % (2500 ppm, 0x09C4)	
0% CO2 ppm value	203 LSB, 203 MSB	R,W EEPROM	CO2 value in ppm which corresponds 0 % (350 ppm, 0x015E)	
CO2 sensor corr	204 LSB, 204 MSB	R,W EEPROM	CO2 sensor correction to compensate altitude, ageing etc. If autocalibration is enabled this value is set each 8 days (under continuous power supply) (0 ppm, 0x0000)	The sensor records the lowest reading and expects that at least once per 8 days the CO2 level reaches the outside air concentration (400 ppm). The lowest measured value is then assigned the 400 ppm level. If this is not the case, the autocalibration will be wrong and must be switched off (register 23 settings, bit 6).

registers 205 are relevant only for UI0... and UX0...

D11 counter	205 LSB	R, RAM	counter input D11 (change from 0 to 1)	if reached maximal value (255) the register is reset
D12 counter	205 MSB	R, RAM	counter input D12 (change from 0 to 1)	if reached maximal value (255) the register is reset



push button pushes	206 LSB	R, RAM	number of button pushes	if reached maximal value (255) the register is reset
	206 MSB		reserved	
uptime	1000 LSB 1000 MSB 1001 LSB 1001 MSB	R	uptime (s)	

Real time table

Addr.	bit7	bit6	bit5	bit4	bit3	bit2	bit1	bit0	Function	Range
77 LSB		10xsecs		seconds					secs	00-59
77 MSB	0	10xmins		minutes					mins	00-59
78 LSB	0		10xhours	10xhours	hours				hours	00-23
78 MSB	0	0	0	0	0	day			day	01-07
79 LSB	0	0	10xdate		date				date	01-31
79 MSB	0	0	0	10xmonth	month				month	01-12
80 LSB	10xyear				year				year	00-99
80 MSB	0	0	0	0	0	0	0	0	not used	00