

Note SW 2.0: Do not write registers during Modbus Gateway startup, because in some cases it might cause communication between Modbus GW and AHU lost. Reading register is allowed.

Addr.	R / W	Register Name	Min	Max	Unit	Description	Note
4x Holding Registers CONTROLS							
4x5001	RW	Fan speed Mode	1	3		1 = Away 2 = Home 3 = Boost	Always write Boost time (Reg 4x1502) prior to Boost mode selection (3) If 1 or 2 is selected RH,AQ functions and Travelling mode are disabled
4x5002	W	Fireplace Function ON Command	0	1		1 = Set Fireplace function active	Register is cleared when command is processed. See function status in register 3x6335
4x5003	W	Fireplace function OFF Command	0	1		1 = Ends Fireplace function	Register is cleared when command is processed. See function status in register 3x6335
4x5004	RW	Travelling mode	0	1		0 = Travelling mode Disabled 1 = Travelling mode Enabled	All Smart functions are disabled
4x5005	RW	Cooker Hood function	0	1		0 = Hood mode Disabled 1 = Hood mode Enabled	Fan speed mode effects total fan speeds
4x5006	RW	Central Vacuum Cleaner function	0	1		0 = CVC mode Disabled 1 = CVC mode Enabled	Fan speed mode effects total fan speeds
4x5007	W	Shut Down Command	0	1		1 = Shuts down the unit	Register is cleared when command is processed. See unit status in register 3x6301.
4x5008	W	Start Up Command	0	1		1 = Start the unit by resetting the control system	Register is cleared when command is processed. See unit status in register 3x6301
4x5009	RW	Auto Home/Away/Boost control	0	1		0 = Auto Home/Away/Boost control disabled 1 = Auto Home/Away/Boost control enabled	Available only in units with CO2 sensor
4x5010	RW	Auto RH control	0	1		0 = Auto RH control disabled 1 = Auto RH control enabled	Available only in units with RH sensor
4x5011	RW	Auto Air Quality control	0	1		0 = Auto Air Quality control mode disabled 1 = Auto Air Quality control mode enabled	Available only in units with VOC sensor
4x5012	RW	Temperature boost control	0	1		0 = Temperature boost control mode disabled 1 = Temperature boost control mode enabled	Available only if Room temperature control selected.
4x5013	RW	Summer Cooling boost	0	1		0 = No Change 1 = Cooling speed	Available only when Summer Cooling conditions are active and manual heat exchanger bypass plate is open.
4x5014	RW	Re-heating Enable	0	1		0 = Re-heating disabled 1 = Re-heating enabled	Available only in units with controlled re-heater
4x5015	RW	External Cooling control	0	1		0 = External Cooling disabled 1 = External Cooling enabled	Available only in units with External Cooling device
4x5016	RW	External Heating control	0	1		0 = External heating disabled 1 = External heating enabled	Available only in units with External Heating device
4x5017	RW	External Pre Heating/Cooling enable	0	1		0 = External Preheating/cooling disabled 1 = External Preheating/cooling enabled	Available only in units with External preheater/cooling device
4x5018	RW	Emergency Stop	0	2		0 = Emergency stop disabled 1 = Emergency stop enabled 2 = Emergency Overpressurizing enabled	If Emergency overpressurising is used Water radiator Freezing protection is disabled, which may cause Damage to Water radiator. Emergency Overpressurizing should never be used to room where the fire is detected.

Addr.	R / W	Register Name	MIn	Max	Unit	Description	Note
4x Holding Registers SETTINGS							
4x5101	RW	Temperature setpoint	16	23	°C	Supply/Room temperature controller setpoint	Available only in units equipped with Re-heater or external Heating /Cooling device.
4x5102	RW	Boost time	0	3		0 = Continuous, 1 = 30 min, 2 = 60 min, 3 = 120 min	Pre-selection to Boost mode timer. Boost time is selected when Boost mode is activated with Register 4x5001
4x5103	RW	External Auto Home/Away/Boost control	-100	100	%	External A+function Increase or decrease Ventilation speed within the Away / Boost limits. The function can be used for stepless Ventilation control.	Register 4x5009 (Auto Home/Away/Boost control) must be enabled when external control is used. When value is 0 the A+ function is disabled
4x5104	RW	Fireplace function run time	0	60	min		
4x5105	RW	Fireplace function Overpressure value	0	25	%		
4x5106	RW	Travelling mode speed drop	0	20	%		
4x5107	RW	Travelling mode temperature drop	0	10	°C		
4x5108	RW	Cooker Hood Run time	0	60	min		RunTime is used only if function is activated manually from User Panel.
4x5109	RW	Cooker Hood Home state compensation	0	50	%		
4x5110	RW	Cooker Hood Boost state compansation correction	0	50	%		
4x5111	RW	Cooker Hood Allow exhaust fan slow down	0	1		0 = Compensation only increase Supply fan speed 1 = Compensation Decrease Exhaust fan speed and if needed Increase supply fan speed	Enable function if external cooker hood fan is used. Disable function if cooker hood is connected to unit cooker hood inlet.
4x5112	RW	Central Vacuum Cleaner run time	0	60	min		RunTime is used only if function is activated manually from User Panel.
4x5113	RW	Central Vacuum Cleaner compensation	0	50	%		
4x5114	RW	Auto Home/Away/Boost Home Limit	0	2000	ppm	CO2 level when unit is working in home speed.	Available only in units with CO2 sensor
4x5115	RW	Auto Home/Away/Boost Away Limit	0	2000	ppm	CO2 level when unit is working in away speed.	Available only in units with CO2 sensor
4x5116	RW	Auto Home/Away/Boost Filter time	0	60	min	Filter to A+ function.	Available only in units with CO2 sensor
4x5117	RW	Auto RH control Boost Limit	0	50	%		Available only in units with RH sensor
4x5118	RW	Auto RH control Full Boost Limit	0	50	%		Available only in units with RH sensor
4x5119	RW	Auto RH control Sauna state	0	1		0 = Sauna function Disabled, 1 = Sauna function Enabled	Available only in units with RH sensor
4x5120	RW	Auto RH control Sauna state fixed speed	0	50	%		Available only in units with RH sensor
4x5121	RW	Auto Air Quality control Boost Limit	0	2000	ppm		Available only in units with VOC sensor
4x5122	RW	Auto Air Quallity control Full Boost Limit	0	2000	ppm		Available only in units with VOC sensor
4x5123	RW	Auto Air Quallity control Filter time	0	60	min		Available only in units with VOC sensor
4x5124	RW	Temperature boost control heating gain	0	100	%		Available only if Room temperature control selected.
4x5125	RW	Temperature boost control cooling gain	0	100	%		Available only if Room temperature control selected.
4x5126	RW	Summer Cooling Fresh air limit	0	50	°C		
4x5127	RW	Summer Cooling Room temp limit	0	50	°C		
4x5128	RW	Summer Cooling boost speed	0	100	%		
4x5129	RW	Heating Fresh air limit	-50	50	°C	Heating allowed limit	Available only in units with controlled re-heater
4x5130	RW	Temperature Controller type	0	1		0 = Supply Temperatur controller1 = Room Temperature control	Available only in units with controlled re-heater
4x5131	RW	Room Temperature Sensor	3	10		3 = T3 Sensor (Extract air temperature) 8 = T8 Sensor (External room temperature sensor) 9 = User Panel 1 temperature 10 = User Panel 2 temperature	
4x5132	RW	Room Temperature Fine Tuning	-50	50	0.1°C	Room Temperature Fine tuning	
4x5133	RW	Heating Supply min limit	10	50	°C		Available only if Room temperature control selected.
4x5134	RW	Heating Supply max limit	10	50	°C		Available only if Room temperature control selected.
4x5135	RW	Cooling Fresh air limit	0	50	°C		Available only in units with External Cooling device
4x5136	RW	Cooling Supply min limit	10	50	°C		Available only in units with External Cooling device
4x5137	RW	Cooling Supply max limit	10	50	°C		Available only in units with External Cooling device
4x5138	RW	External Pre Heating Fresh air limit	-50	50	°C		Available only in units with External preheater/cooling device
4x5139	RW	External Pre Cooling Fresh air limit	-50	50	°C		Available only in units with External preheater/cooling device
4x5140	RW	External Fresh air temperature sensor	0	8		0 = Disabled8 = T8 Sensor	Available only in units with External preheater/cooling device When Externar Pre Heating/Cooling is selected T8 is selected as External Fresh air sensor.

Addr.	R / W	Register Name	MIn	Max	Unit	Description	Note
4x5141	RW	Service Reminder	0	1		0 = Disabled 1 = Enabled	
4x5142	RW	Service Reminder interval	0	12	months		
4x5143	RW	Filter Guard Delay	0	120	mins		
4x5144	RW	Switcho input 1 function	0	5		0 = NA, 1 = Boost, 2 = Hood, 3 = CVC, 4= Away, 5 = Fireplace	
4x5145	RW	Switcho input 2 function	0	5		0 = NA, 1 = Boost, 2 = Hood, 3 = CVC, 4= Away, 5 = Fireplace	
4x5146	RW	Switcho input 3 function	0	5		0 = NA, 1 = Boost, 2 = Hood, 3 = CVC, 4= Away, 5 = Fireplace	
4x5147	RW	DDC Enable	0	1		0 = Disabled, 1 = Enabled	
4x5148	RW	DDC Fan Control	0	1		0 = Disabled, 1 = Enabled	
4x5149	RW	DDC Temperature Control	0	1		0 = Disabled, 1 = Enabled	
4x5150	RW	DDC Emergency Stop input	0	1		0 = Disabled, 1 = Enabled	
4x Holding Registers User Panel Smart Function Visibility							
4x5201	RW	Smart function visibility Fireplace	0	1		0 = Disabled, 1 = Enabled	Available only in unit with User Panel
4x5202	RW	Smart function visibility Travelling	0	1		0 = Disabled, 1 = Enabled	Available only in unit with User Panel
4x5203	RW	Smart function visibility Hood	0	1		0 = Disabled, 1 = Enabled	Available only in unit with User Panel
4x5204	RW	Smart function visibility Cental Vacuum	0	1		0 = Disabled, 1 = Enabled	Available only in unit with User Panel
4x5205	RW	Smart function visibility Smart boost	0	1		0 = Disabled, 1 = Enabled	Available only in unit with User Panel Smart boost are only visible if sensor is detected
4x5206	RW	Smart function visibility Summer Cooling boost	0	1		0 = Disabled, 1 = Enabled	Available only in unit with User Panel
4x5207	RW	Smart function visibility Heating boost	0	1		0 = Disabled, 1 = Enabled	Available only in unit with User Panel
4x5208	RW	Smart function visibility Shutdown	0	1		0 = Disabled, 1 = Enabled	Available only in unit with User Panel
4x Holding Registers Fan Speed Settings							
4x5301	RW	Fan speed Commissioning mode	0	1		0 = Commissioning mode Disabled 1 = Commissioning mode Enabled	When commissioning mode is enabled, functions which interfere fan speed adjustment are disabled.
4x5302	RW	Away mode Supply fan speed	0	100	%	fan speed	Don't use this register for external fan control.
4x5303	RW	Away mode Exhaust fan speed	0	100	%	fan speed	Don't use this register for external fan control.
4x5304	RW	Home mode Supply fan speed	0	100	%	fan speed	Don't use this register for external fan control.
4x5305	RW	Home mode Exhaust fan speed	0	100	%	fan speed	Don't use this register for external fan control.
4x5306	RW	Boost mode Supply fan speed	0	100	%	fan speed	Don't use this register for external fan control.
4x5307	RW	Boost mode Exhaust fan speed	0	100	%	fan speed	Don't use this register for external fan control.
4x5308	RW	Smart mode max Supply fan speed	0	100	%	fan speed	If 100% is selected, maximum Smart mode speed is Boost
4x5309	RW	Smart mode max Exhaust fan speed	0	100	%	fan speed	If 100% is selected, maximum Smart mode speed is Boost
4x5310	RW	Fan speed transition delay	0	100	%/8s	Transition delay	
4x Holding Registers ALARM CONFIRMATION							
4x5401	W	Re-heater failure alarm confirm	0	1		1 Confirm Alarm, Register is cleared when command is processed.	Available only in unit with Electrical Re-heater
4x5402	W	Preheater failure alarm confirm	0	1		1 Confirm Alarm, Register is cleared when command is processed.	Available only in unit with Electrical Preheater
4x5403	W	Water radiator Freezing danger alarm confirm	0	1		1 Confirm Alarm, Register is cleared when command is processed.	Available only in unit with Water radiator
4x5404	W	Filter Guard info confirm	0	1		1 Confirm Alarm, Register is cleared when command is processed.	Available only in unit with Filter Guard
4x5405	W	Service Timer info confirm	0	1		1 Confirm Alarm, Register is cleared when command is processed.	
4x5406	W	Internal Error confirm	0	1		1 Confirm Alarm, Register is cleared when command is processed.	
4x5407	W	Fan failure alarm confirm	0	1		1 Confirm Alarm, Register is cleared when command is processed.	Available only in unit with RPM measurement
4x5408	W	Sensor failure confirm	0	1		1 Confirm Alarm, Register is cleared when command is processed.	

Addr.	R / W	Register Name	Min	Max	Unit	Description	Note
3x Input Registers UNIT INFORMATION							
3x6001	R	Device Firmware version major	0	99			
3x6002	R	Device Firmware version minor	0	99			
3x6003	R	Device Firmware build	0	999			
3x6004	R	Parameter version major	0	99			
3x6005	R	Parameter version minor	0	99			
3x6006	R	Modbus Gateway Software version major	0	99			
3x6007	R	Modbus Gateway Software version minor	0	99			
3x6008	R	Model name [0] -			ASCII	Model name ASCII code 3x16008 - 3x16024	
3x6024	R	Model name [16]			ASCII		
3x Input Registers Alarms							
3x6101	R	T1 Temperature Sensor Failure	0	1		0 = No Alarms, 1 = Active Alarm	
3x6102	R	T2 Temperature Sensor Failure	0	1		0 = No Alarms, 1 = Active Alarm	
3x6103	R	T3 Temperature Sensor Failure	0	1		0 = No Alarms, 1 = Active Alarm	
3x6104	R	T4 Temperature Sensor Failure	0	1		0 = No Alarms, 1 = Active Alarm	
3x6105	R	T5 Temperature Sensor Failure	0	1		0 = No Alarms, 1 = Active Alarm	
3x6106	R	T6 Temperature Sensor Failure	0	1		0 = No Alarms, 1 = Active Alarm	
3x6107	R	T7 Temperature Sensor Failure	0	1		0 = No Alarms, 1 = Active Alarm	
3x6108	R	T8 Temperature Sensor Failure	0	1		0 = No Alarms, 1 = Active Alarm	
3x6109	R	T1 Unconfirmed Temperature Sensor Failure	0	1		0 = No Alarms, 1 = Unconfirmed Info Alarm	
3x6110	R	T2 Unconfirmed Temperature Sensor Failure	0	1		0 = No Alarms, 1 = Unconfirmed Info Alarm	
3x6111	R	T3 Unconfirmed Temperature Sensor Failure	0	1		0 = No Alarms, 1 = Unconfirmed Info Alarm	
3x6112	R	T4 Unconfirmed Temperature Sensor Failure	0	1		0 = No Alarms, 1 = Unconfirmed Info Alarm	
3x6113	R	T5 Unconfirmed Temperature Sensor Failure	0	1		0 = No Alarms, 1 = Unconfirmed Info Alarm	
3x6114	R	T6 Unconfirmed Temperature Sensor Failure	0	1		0 = No Alarms, 1 = Unconfirmed Info Alarm	
3x6115	R	T7 Unconfirmed Temperature Sensor Failure	0	1		0 = No Alarms, 1 = Unconfirmed Info Alarm	
3x6116	R	T8 Unconfirmed Temperature Sensor Failure	0	1		0 = No Alarms, 1 = Unconfirmed Info Alarm	
3x6117	R	Afterheater failure	0	1		0 = No Alarms, 1 = Active Alarm	Available only in unit with Electrical Re-heater
3x6118	R	Unconfirmed Afterheater failure	0	1		0 = No Alarms, 1 = Unconfirmed Info Alarm	Available only in unit with Electrical Re-heater
3x6119	R	Preheater failure	0	1		0 = No Alarms, 1 = Active Alarm	Available only in unit with Electrical Preheater
3x6120	R	Unconfirmed Preheater failure	0	1		0 = No Alarms, 1 = Unconfirmed Info Alarm	Available only in unit with Electrical Preheater
3x6121	R	Freezing danger	0	1		0 = No Alarms, 1 = Active Alarm	Available only in unit with Water radiator
3x6122	R	Unconfirmed Freezing danger	0	1		0 = No Alarms, 1 = Unconfirmed Info Alarm	Available only in unit with Water radiator
3x6123	R	Internal Error	0	1		0 = No Alarms, 1 = Active Alarm	
3x6124	R	Unconfirmed Internal Error	0	1		0 = No Alarms, 1 = Unconfirmed Info Alarm	
3x6125	R	Supply Fan Failure	0	1		0 = No Alarms, 1 = Active Alarm	
3x6126	R	Unconfirmed Supply Fan Failure	0	1		0 = No Alarms, 1 = Unconfirmed Info Alarm	
3x6127	R	Exhaust Fan Failure	0	1		0 = No Alarms, 1 = Active Alarm	
3x6128	R	Unconfirmed Exhaust Fan Failure	0	1		0 = No Alarms, 1 = Unconfirmed Info Alarm	
3x6129	R	Service Info	0	1		0 = No Alarms, 1 = Unconfirmed Info Alarm	
3x6130	R	Filter guard info	0	1		0 = No Alarms, 1 = Unconfirmed Info Alarm	Available only in unit with Filter Guard
3x6131	R	Emergency Stop	0	1		0 = No Alarms, 1 = Active Alarm	
3x6132	R	Active Alarms	0	1		0 = No Alarms, 1 = Active Alarm	
3x6133	R	Unconfirmed Info	0	1		0 = No Info, 1 = Active Info	

Addr.	R / W	Register Name	MIn	Max	Unit	Description	Note
3x Input Registers Measurements							
3x6201	R	Fresh air temperature	-550	600	0.1°C		
3x6202	R	Supply air before re-heater temperature	-550	600	0.1°C		
3x6203	R	Supply air temperature	-550	600	0.1°C		
3x6204	R	Extract air temperature	-550	600	0.1°C		
3x6205	R	Exhaust (waste) air temperature	-550	600	0.1°C		
3x6206	R	Room air temperature	-550	600	0.1°C		
3x6207	R	User Panel 1 temperature	-550	600	0.1°C		
3x6208	R	User Panel 2 temperature	-550	600	0.1°C		
3x6209	R	Water Radiator temperature	-550	600	0.1°C		Available only in units with water radiator
3x6210	R	Pre-heater temperature	-550	600	0.1°C		Available only in units with Preheater
3x6211	R	External Fresh air temperature	-550	600	0.1°C		Only If External PreHeater/Cooling selected
3x6212	R	CO2 Unfiltered	0	2000	ppm		Available only in units with CO2 sensor
3x6213	R	CO2 Filtered	0	2000	ppm		Available only in units with CO2 sensor
3x6214	R	RH (%)	0	100	%		Available only in units with RH sensor
3x6215	R	AH (g/m3)	0	5000	0.1g/m3		Available only in units with RH sensor
3x6216	R	AH SetPoint (g/m3)	0	5000	0.1g/m3		Available only in units with RH sensor
3x6217	R	VOC	0	2000	ppm		Available only in units with VOC sensor
3x Input Registers Unit status							
3x6301	R	Unit state	0	4		0 = External Stop 1 = User Stopped 2 = Starting 3 = Normal 4 = Commissioning	
3x6302	R	Ventilation Speed state	0	4		0 = Stopped 1 = Away 2 = Home 3 = Boost 4 = Cooling	
3x6303	R	Supply Fan Control	0	100	%		
3x6304	R	Exhaust Fan Control	0	100	%		
3x6305	R	Supply Fan RPM	0	5000	RPM		
3x6306	R	Exhaust Fan RPM	0	5000	RPM		
3x6307	R	Travelling Function Active	0	1		0 = Function Not Active, 1 = Function Active	
3x6308	R	Boost / Fireplace Time left	0	120	min	Timed Function remaining time	
3x6309	R	Week Timer Active	0	1		0 = Function Not Active, 1 = Function Active	
3x6310	R	A+ Control	-100	100	%		Available only in units with CO2 sensor
3x6311	R	Auto RH Control	0	100	%		Available only in units with RH sensor
3x6312	R	Auto Air Quality Control	0	100	%		Available only in units with VOC sensor
3x6313	R	Auto Temperature Boost Control	0	100	%		Available only if Room temperature control selected.
3x6314	R	Fan Speed limit Control	-100	0	%		
3x6315	R	Smart Control	-100	100	%		
3x6316	R	Temperature Setpoint	13	25	°C		Available only in units with controlled re-heater
3x6317	R	Supply Control Power output	0	100	%	Heating or Cooling Output control	Available only in units with controlled re-heater / cooling
3x6318	R	Supply Controller P term	0	100	%		Available only in units with controlled re-heater
3x6319	R	Supply Controller I term	0	100	%		Available only in units with controlled re-heater
3x6320	R	Room Controller Supply Setpoint	0	50	°C		Available only if Room temperature control selected.
3x6321	R	Room Controller P term	0	100	%		Available only if Room temperature control selected.
3x6322	R	Room Controller I term	0	100	%		Available only if Room temperature control selected.
3x6323	R	Cooling Control Active	0	1		0 = Function Not Active, 1 = Function Active	See reg 3x16317 for Cooling power

Addr.	R / W	Register Name	Min	Max	Unit	Description	Note
3x Input Registers Unis status							
3x6324	R	DDC Fan Speed Control	1	5		1 = Away (1 - 3V input) 2 = Home (3 - 5V input) 3 = Boost (5 - 7V input) 4 = Cooling (7 - 10V input) 5 = DDC control not in use (0-1V input)	
3x6325	R	DDC Temperature Setpoint Control	10	30	°C	Equals 0 - 10V input	
3x6326	R	DDC Temperature Control Active	0	1		0 = Function Not Active, 1 = Function Active	
3x6327	R	DDC Fan Speed Control Active	0	1		0 = Function Not Active, 1 = Function Active	
3x6328	R	Defrost Active	0	4		0 = Function Not Active, 1 - 4 = Defrost Function Active	
3x6329	R	Defrost Supply Forcing	0	1		0 = Function Not Active, 1 = Function Active	
3x6330	R	Defrost Exhaust Forcing	0	1		0 = Function Not Active, 1 = Function Active	
3x6331	R	Defrost IR sensor blocked	0	1		0 = Function Not Active, 1 = Function Active	Available only in units with IR sensor
3x6332	R	Rotor Active	0	1		0 = Function Not Active, 1 = Function Active	Available only in R-Series Units
3x6333	R	Preheater Active	0	1		0 = Function Not Active, 1 = Function Active	Available only in units with Preheater
3x6334	R	Summer Cooling Active	0	1		0 = Function Not Active, 1 = Function Active	
3x6335	R	Fireplace function Active	0	1		0 = Function Not Active, 1 = Function Active	
3x6336	R	Central Vacuum Cleaner function active	0	1		0 = Function Not Active, 1 = Function Active	
3x6337	R	Hood Compensation Active	0	1		0 = Function Not Active, 1 = Function Active	
3x6338	R	External Boost Control Active	0	1		0 = Function Not Active, 1 = Function Active	
3x6339	R	External Away Control Active	0	1		0 = Function Not Active, 1 = Function Active	
3x6340	R	Manual Heat Exchanger bypass plate Position	0	1		0 = Heat Exchanger bypass plate Closed(Winter) 1 = Heat Exchanger bypasses plate Open (Summer)	Available only in units with Manual Heat Exchanger
3x6341	R	Automatic Heat Exchanger bypass plate Position	0	1		0 = Heat Exchanger bypass plate Closed(Winter)1 = Heat Exchanger bypasses plate	Available only in units with Automatic Heat Exchanger
3x6342	R	Filter Guard Input status	0	1		0 = Filter Guard input Not Active 1 = Filter Guard input Active	
3x6343	R	Hours to next Service	0	10000	Hours		Available if Service Reminder enabled (see 4x5142 for Service Interval)