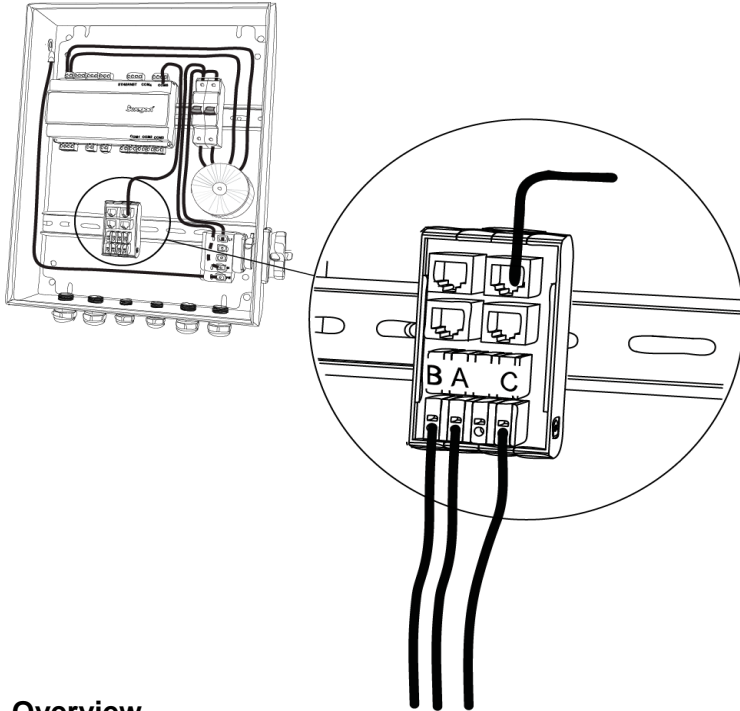


Modbus RTU/TCP

NESTOR, program version **1.01** and newer versions.

Updated 2013-06-26 AGn, all updates are marked with the SV <software version number> in the Misc column

NESTOR will be Modbus slave, and the data is available through the Ethernet port (E) via TCP/IP.



Overview

Modbus can access single addresses or multiple addresses simultaneously; either reading or writing single bit values or 16-bit values.

Modbus data format

Modbus data types are 16-bit values.

Modbus Type	Description	Reference
Coil Register	1-bit Input (write) Register	0x
Discrete Input Register	16-bit Output (read) Register	1x
Holding Register	16-bit Input (write) Register	4x
Input Register	16-bit Output (read) Register	3x

Modbus reference number are PLC address [Base 1]

Supported Modbus commands

The NESTOR unit supports the following Modbus commands.

Function code	Description
01	Read Coil Registers
02	Read Discrete Registers
03	Read Holding Registers
04	Read Input Registers
05	Preset Single Coil
06	Preset Single Holding
15	Preset Multiple Coil Registers
16	Preset Multiple Holding Registers

Coil Status. 1bit (R/W).

Modbus	Name	Min/Max	Misc
0x0001	External Heat Source	0-1	
	0 = Disables usage of external heat source 1 = Enables usage of external heat source		
0x0002	External Cool Source	0-1	
	0 = Disables usage of external cool source 1 = Enables usage of external cool source		
0x0003	Zone Alarm Prio B	0-1	
	0 = Sets alarm priority for Zone product alarms to A 1 = Sets alarm priority for Zone product alarms to B		
0x0004	SPARE		
0x0005	Operation mode Digital Input NO/NC	0-1	
	0 = NO 1 = NC		
0x0006	AquaLink Activation	0-1	
	0 = AcuaLink function activated 1 = AcuaLink function deactivated		
0x0007	AquaLink Alarm NO/NC	0-1	
	0 = NO 1 = NC		
0x0008	EnableOpModeGold1	0-1	
	0 = Disable Operation Mode for Gold 1 1 = Enable Operation Mode for Gold 1		
0x0009	EnableOpModeGold2	0-1	
	0 = Disable Operation Mode for Gold 2 1 = Enable Operation Mode for Gold 2		
0x0010	EnableOpModeGold3	0-1	
	0 = Disable Operation Mode for Gold 3 1 = Enable Operation Mode for Gold 3		
0x0011	EnableOpModeGold4	0-1	
	0 = Disable Operation Mode for Gold 4 1 = Enable Operation Mode for Gold 4		
0x0012	EnableOpModeGold5	0-1	
	0 = Disable Operation Mode for Gold 5 1 = Enable Operation Mode for Gold 5		
0x0013	EnableOpModeGold6	0-1	
	0 = Disable Operation Mode for Gold 6 1 = Enable Operation Mode for Gold 6		
0x0014	EnableOpModeGold7	0-1	
	0 = Disable Operation Mode for Gold 7 1 = Enable Operation Mode for Gold 7		
0x0015	EnableOpModeGold8	0-1	
	0 = Disable Operation Mode for Gold 8 1 = Enable Operation Mode for Gold 8		
0x0016	Valid Internal Outdoor temp sensor Gold1	0-1	
	0 = The internal outdoor sensor of Gold 1 does not measure a valid outdoor temperature (or Gold 1 shall not receive the system outdoor temperature). 1 = The internal outdoor sensor of Gold 1 measures a valid outdoor temperature		

Coil Status. 1bit (R/W).

Modbus	Name	Min/Max	Misc
0x0017	Valid Internal Outdoor temp sensor Gold2	0-1	
	0 = The internal outdoor sensor of Gold 2 does not measure a valid outdoor temperature (or Gold 2 shall not receive the system outdoor temperature). 1 = The internal outdoor sensor of Gold 2 measures a valid outdoor temperature		
0x0018	Valid Internal Outdoor temp sensor Gold3	0-1	
	0 = The internal outdoor sensor of Gold 3 does not measure a valid outdoor temperature (or Gold 3 shall not receive the system outdoor temperature). 1 = The internal outdoor sensor of Gold 3 measures a valid outdoor temperature		
0x0019	Valid Internal Outdoor temp sensor Gold4	0-1	
	0 = The internal outdoor sensor of Gold 4 does not measure a valid outdoor temperature (or Gold 4 shall not receive the system outdoor temperature). 1 = The internal outdoor sensor of Gold 4 measures a valid outdoor temperature		
0x0020	Valid Internal Outdoor temp sensor Gold5	0-1	
	0 = The internal outdoor sensor of Gold 5 does not measure a valid outdoor temperature (or Gold 5 shall not receive the system outdoor temperature). 1 = The internal outdoor sensor of Gold 5 measures a valid outdoor temperature		
0x0021	Valid Internal Outdoor temp sensor Gold6	0-1	
	0 = The internal outdoor sensor of Gold 6 does not measure a valid outdoor temperature (or Gold 6 shall not receive the system outdoor temperature). 1 = The internal outdoor sensor of Gold 6 measures a valid outdoor temperature		
0x0022	Valid Internal Outdoor temp sensor Gold7	0-1	
	0 = The internal outdoor sensor of Gold 7 does not measure a valid outdoor temperature (or Gold 7 shall not receive the system outdoor temperature). 1 = The internal outdoor sensor of Gold 7 measures a valid outdoor temperature		
0x0023	Valid Internal Outdoor temp sensor Gold8	0-1	
	0 = The internal outdoor sensor of Gold 8 does not measure a valid outdoor temperature (or Gold 8 shall not receive the system outdoor temperature). 1 = The internal outdoor sensor of Gold 8 measures a valid outdoor temperature		
0x0024	Use System Outdoor temp in Gold1	0-1	SV 1.01
	0 = Gold 1 shall NOT receive the system outdoor temperature. 1 = Gold 1 SHALL receive the system outdoor temperature.		
0x0025	Use System Outdoor temp in Gold2	0-1	SV 1.01
	0 = Gold 2 shall NOT receive the system outdoor temperature. 1 = Gold 2 SHALL receive the system outdoor temperature.		
0x0026	Use System Outdoor temp in Gold3	0-1	SV 1.01
	0 = Gold 3 shall NOT receive the system outdoor temperature. 1 = Gold 3 SHALL receive the system outdoor temperature.		
0x0027	Use System Outdoor temp in Gold4	0-1	SV 1.01
	0 = Gold 4 shall NOT receive the system outdoor temperature. 1 = Gold 4 SHALL receive the system outdoor temperature.		

Coil Status. 1bit (R/W).

Modbus	Name	Min/Max	Misc
0x0028	Use System Outdoor temp in Gold5	0-1	SV 1.01
	0 = Gold 5 shall NOT receive the system outdoor temperature. 1 = Gold 5 SHALL receive the system outdoor temperature.		
0x0029	Use System Outdoor temp in Gold6	0-1	SV 1.01
	0 = Gold 6 shall NOT receive the system outdoor temperature. 1 = Gold 6 SHALL receive the system outdoor temperature.		
0x0030	Use System Outdoor temp in Gold7	0-1	SV 1.01
	0 = Gold 7 shall NOT receive the system outdoor temperature. 1 = Gold 7 SHALL receive the system outdoor temperature.		
0x0031	Use System Outdoor temp in Gold8	0-1	SV 1.01
	0 = Gold 8 shall NOT receive the system outdoor temperature. 1 = Gold 8 SHALL receive the system outdoor temperature.		
0x0032	Current water type NO/NC	0-1	SV 1.01
	0 = DO5 indicates hot water when low and cold water when high 1 = DO5 indicates cold water when low and hot water when high		(moved from 0x24)
0x0033- 0x0100	SPARE		
0x0101	Port Active UserSet 0	0-1	
	Gold 1 Connected		
...
0x0108	Port Active UserSet 7	0-1	
	Gold 8 Connected		
0x0109	Port Active UserSet 8	0-1	
	Super WISE 1 Connected		
...
0x01016	Port Active UserSet 15	0-1	
	Super WISE 8 Connected		
0x0117- 0x0130	SPARE		
0x0131	OH Enable Gold 1	0-1	
	Enable connection of Ordinary heating sequence in Gold 1		
...
0x0138	OH Enable Gold 8	0-1	
	Enable connection of Ordinary heating sequence in Gold 8		
0x0139	EH Enable Gold 1	0-1	
	Enable connection of Extra heating sequence in Gold 1		
...
0x0146	EH Enable Gold 8	0-1	
	Enable connection of Extra heating sequence in Gold 8		
0x0147	XH Enable Gold 1	0-1	
	Enable connection of X-zone heating sequence in Gold 1		
...
0x0154	XH Enable Gold 8	0-1	
	Enable connection of X-zone heating sequence in Gold 8		
0x0155	AYCH Enable Gold 1	0-1	
	Enable connection of AYC heating sequence in Gold 1		
...
0x0162	AYCH Enable Gold 8	0-1	
	Enable connection of AYC heating sequence in Gold 8		
0x0163	PH Enable Gold 1	0-1	
	Enable connection of Pre-heating sequence in Gold 1		
...

Coil Status. 1bit (R/W).

Modbus	Name	Min/Max	Misc
0x0170	PH Enable Gold 8	0-1	
	Enable connection of Pre-heating sequence in Gold 8		
0x0171	OC Enable Gold 1	0-1	
	Enable connection of Ordinary cooling sequence in Gold 1		
...
0x0178	OC Enable Gold 8	0-1	
	Enable connection of Ordinary cooling sequence in Gold 8		
0x0179	EC Enable Gold 1	0-1	
	Enable connection of Extra cooling sequence in Gold 1		
...
0x0186	EC Enable Gold 8	0-1	
	Enable connection of Extra cooling sequence in Gold 8		
0x0187	XC Enable Gold 1	0-1	
	Enable connection of X-zone cooling sequence in Gold 1		
...
0x0194	XC Enable Gold 8	0-1	
	Enable connection of X-zone cooling sequence in Gold 8		
0x0195	AYCC Enable Gold 1	0-1	
	Enable connection of AYC cooling sequence in Gold 1		
...
0x0202	AYCC Enable Gold 8	0-1	
	Enable connection of AYC cooling sequence in Gold 8		
0x0203	Enable optimization Gold 1	0-1	
	Enable optimization for enabled sequences in Gold 1		
...
0x0210	Enable optimization Gold 8	0-1	
	Enable optimization for enabled sequences in Gold 8		

Input Status. 1bit (RO).

Modbus	Name	Min/Max	Misc
1x0001	ExternalHeatActive 1 = External heat active	0-1	
1x0002	ExternalCoolActive 1 = External cool active	0-1	
1x0003	Time controlled output High when time channels for setting digital output is active	0-1	
1x0004	Alarm notification output High when an alarm set to generate a digital output signal is active	0-1	
1x0005	Current water type (Reversible Chiller mode) Indicates the current water type (0 for hot and 1 for cold if parameter PRM_CurrWatType_NONC is 0)	0-1	
1x0006	Heat pump/Chiller Operation status 0 = Off, 1 = On	0-1	SV 1.01
1x0007	Defrost status 0 = Inactive, 1 = Active	0-1	SV 1.01
1x0008	Heat pump/Chiller Summary alarm level 1 0 = Inactive, 1 = Active	0-1	SV 1.01
1x0009	Heat pump/Chiller Summary alarm level 2 0 = Inactive, 1 = Active	0-1	SV 1.01
1x0010	Heat pump/Chiller Summary alarm level 3 0 = Inactive, 1 = Active	0-1	SV 1.01
1x0011	System Cooling Demand 0 = No System Cooling demand 1 = System Cooling demand	0-1	
1x0012	System Heating Demand 0 = No System Heating demand 1 = System Heating demand	0-1	
1x0013	SPARE		
1x0014	SPARE		
1x0015	Heat Limit Active 1 = Heat limitation function active	0-1	
1x0016	Aqualink Active 1 = Aqua Link active	0-1	
1x0017	Operation Mode Digital Input Operation mode Digital Input (1=Activated)	0-1	
1x0018	SPARE		
1x0019	SPARE		
1x0020	SPARE		
1x0021	Heating demand Gold 1 Heating demand from Gold 1 present	0-1	
...
1x0028	Heating demand Gold 8 Heating demand from Gold 8 present	0-1	
1x0029	Cooling demand Gold 1 Cooling demand from Gold 1 present	0-1	
...

Input Status. 1bit (RO).

Modbus	Name	Min/Max	Misc
1x0036	Cooling demand Gold 8	0-1	
	Cooling demand from Gold 8 present		
1x0037- 1x0100	SPARE		
1x0101	CMSL Alarm 1	0-1	
	CMSL Alarm 1		
...
1x0128	CMSL Alarm 28	0-1	
	CMSL Alarm 28		

Input Registers. 16-bit integer value (RO).

Modbus	Name	Min/Max	Misc
3x0001	System cooling setpoint	-20.00-80.00°C	
	Total cooling setpoint		
3x0002	System heating setpoint	10.00-80.00°C	
	Total heating setpoint		
3x0003	Supply water temperature	-20.0-80.0°C	
	Supply water temperature		
3x0004	Return water temperature	-20.0-80.0°C	
	Return water temperature		
3x0005	Current water type	0-2	
	Current water type 0 = undefined 1 = Hot 2 = Cold		
3x0006	Time since last cool/heat switch	0-32767	
	Time since last cool/heat switch		
3x0007	Heat limit outdoor temperature	-20.00-80.00°C	
	Stored value of the outdoor temperature from when entering the heat limit mode		
3x0008	Total supply air volume	0-32000l/s	
	Total supply air volume		
3x0009	Total extract air volume	0-32000l/s	
	Total extract air volume		
3x0010	Outdoor temperature	-20.00-80.00°C	
	Outdoor temperature		
3x0011	Operation mode	0-6	
	Operation mode 0=Auto 1=Auto,NoCooling 2=LowSpeed 3=LowSpeed, NoCooling 4=HighSpeed 5=HighSpeed,NoCooling 6=Stop		
3x0012	Number of active alarms	0-200	
	Number of active alarms		
3x0013	OutTempOriginUsed	0-8	
	Outdoor temperature sensor used		
3x0014	Heating set point Gold 1	5.00-60.00°C	
	Heating set point for Gold 1		
...
3x0021	Heating set point Gold 8	5.00-60.00°C	
	Heating set point for Gold 8		
3x0022	Cooling set point Gold 1	-10.00-25.00°C	
	Cooling set point for Gold 1		

3x0029	Cooling set point Gold 8	-10.00-25.00°C	
	Cooling set point for Gold 8		
3x0030	SPARE		
3x0031	Chiller/Heat pump Outlet temperature circuit 1	-20.0-80.0°C	SV 1.01
	Supply water temperature circuit 1		
3x0032	Chiller/Heat pump Outlet temperature circuit 2	-20.0-80.0°C	SV 1.01
	Supply water temperature circuit 2		

Input Registers. 16-bit integer value (RO).

Modbus	Name	Min/Max	Misc
3x0033	Chiller/Heat pump Outlet temperature circuit 3 Supply water temperature circuit 3	-20.0-80.0°C	SV 1.01
3x0034	Chiller/Heat pump Outlet temperature circuit 4 Supply water temperature circuit 4	-20.0-80.0°C	SV 1.01
3x0035	Max cooling set point Maximum value for the cooling set point	-20.0-80.0°C	SV 1.01
3x0036	Min cooling set point Minimum value for the cooling set point	-20.0-80.0°C	SV 1.01
3x0037	Max heating set point Maximum value for the heating set point	-20.0-80.0°C	SV 1.01
3x0038	Min heating set point Minimum value for the heating set point	-20.0-80.0°C	SV 1.01
3x0039	Chiller/Heat pump refrigeration amount Number of refrigeration circuits	0-10000	SV 1.01
3x0040	Chiller/Heat pump hydraulic amount Number of hydraulic circuits	0-10000	SV 1.01
3x0041	Chiller/Heat pump source amount Number of sources	0-10000	SV 1.01
3x0042	Chiller/Heat pump pump amount Number of pumps	0-10000	SV 1.01
3x0043	Chiller/Heat pump compressor amount Number of compressors	0-10000	SV 1.01
3x0044	Chiller/Heat pump software version Software version of the chiller/heat pump controller	0.00-100.00	SV 1.01
3x0045- 3x00100	SPARE		
3x0101	Alarm 1, Part A Bitwise stored (16 bits) as: bit 0: Status (1 if active alarm, 0 if recovered) bit 1-5: Day bit 6-9: Month bit 10-15: Year (minus 2000)	-	
3x0102	Alarm 1, Part B Bitwise stored (16 bits) as: bit 0-10: Time (of day in minutes) bit 11-13: Product (0 = Nestor, 1 = Swegon Chiller/Heat pump, 2 = Gold AHU, 3 = Super WISE, 4 = Zone controller, 5 = Room controller, 6 = Room Slave controller) bit 14: SPARE bit 15: Priority (0 = A, 1 = B)	-	
3x0103	Alarm 1, Part C Bitwise stored (16 bits) as: bit 0-2: Classification (0 = System products, 1 = Cooling/Heating production, 2 = Air production, 3 = Climate supply, 4 = Miscellaneous) bit 3: SPARE bit 4-6: System product number (1-8 for Gold or Super WISE and underlying products, 0 for NESTOR and Swegon Chiller/Heat pump) bit 7: SPARE bit 8-15: Local alarm number	-	

Input Registers. 16-bit integer value (RO).

Modbus	Name	Min/Max	Misc
3x0104	Alarm 1, Part D	-	
	Bitwise stored (16 bits) as: bit 0-1: Slave number (1-3) bit 2-7: Room number (1-60) bit 8: SPARE bit 9-11: Damper number (1-8) bit 12-15: Zone number (0-9)		
3x0105	Alarm 2, Part A	-	
3x0106	Alarm 2, Part B	-	
3x0107	Alarm 2, Part C	-	
3x0108	Alarm 2, Part D	-	
...	...		
3x0897	Alarm 200, Part A	-	
3x0898	Alarm 200, Part B	-	
3x0899	Alarm 200, Part C	-	
3x0900	Alarm 200, Part D	-	

Holding Registers. 16-bit integer value (R/W).

Modbus	Name	Min/Max	Misc
4x0001	Chiller Type	0-4	
	Chiller Type 0 = None 1 = Heating 2 = Cooling 3 = Reversible 4 = Hybrid System		
4x0002	Cooling Activation Delay	0-1000min	
	Activation delay before cooling is requested from chiller		
4x0003	Heating Activation Delay	0-1000min	
	Activation delay before heating is requested from chiller		
4x0004	Mode Prio Temperature	-20.00-80.00°C	
	Cooling is prioritized when outdoor temperature is above this limit		
4x0005	Heat Limit Detection	0-2	
	Trigger temperature for Heat Limit detection function 0 = None 1 = Outdoor Temperature 2 = Supply Temperature		
4x0006	Heat Limit Action	0-2	
	Action temperature for Heat Limit detection function 0 = None 1 = Change 2 = Both		
4x0007	Outdoor Temp Heat Limit	-20.00-80.00°C	
	Outdoor temperature where Heat Limit function is activated		
4x0008	HeatLimitDiff	0.00-10.00K	
	Hysteresis temperature for activate/deactivate Heat Limit function		
4x0009	HeatLimitDelay	0-10000min	
	Delay for Heat Limit activation		
4x0010	MinSwitchDays	0-365days	
	Minimum no of days between cooling/heating switches		
4x0011	MinSwitchHours	0-24hours	
	Minimum no of hours between cooling/heating switches		
4x0012	ModePrio	0-1	
	The water production type to which a switch can be forced faster (using Min prio force time): 0 = Heating 1 = Cooling		
4x0013	MinPrioForceTime	0-256hours	
	Minimum no of hours between cooling/heating switches to the prioritized mode (Prio Mode)		
4x0014	OutTempOrigin	0-8	
	Define where to get the common outdoor temperature 0 = No common temp 1 = Gold 1 ... 8 = Gold 8		
4x0015	Optimizing heating diff	0.00-10.00K	
	Diff used when optimizing heating set points		
4x0016	Optimizing cooling diff	0.00-10.00K	
	Diff used when optimizing cooling set points		

Holding Registers. 16-bit integer value (R/W).

Modbus	Name	Min/Max	Misc
4x0017-4x0025	SPARE		
4x0026	Optimization heating increase speed Gold 1	0.01-10.00K/min	
	Increase speed used when optimizing heating set points, Gold 1		
...
4x0033	Optimization heating increase speed Gold 8	0.01-10.00K/min	
	Increase speed used when optimizing heating set points, Gold 8		
4x0034	Optimization heating decrease speed Gold 1	0.01-10.00K/min	
	Decrease speed used when optimizing heating set points, Gold 1		
...
4x0041	Optimization heating decrease speed Gold 8	0.01-10.00K/min	
	Decrease speed used when optimizing heating set points, Gold 8		
4x0042	Optimization cooling increase speed Gold 1	0.01-10.00K/min	
	Increase speed used when optimizing cooling set points, Gold 1		
...
4x0049	Optimization cooling increase speed Gold 8	0.01-10.00K/min	
	Increase speed used when optimizing cooling set points, Gold 8		
4x0050	Optimization cooling decrease speed Gold 1	0.01-10.00K/min	
	Decrease speed used when optimizing cooling set points, Gold 1		
...
4x0057	Optimization cooling decrease speed Gold 8	0.01-10.00K/min	
	Decrease speed used when optimizing cooling set points, Gold 8		
4x0058	Optimization high valve position Gold 1	20.00-100.00%	
	High valve limit used when optimizing cooling and heating set points, Gold 1		
...
4x0065	Optimization high valve position Gold 8	20.00-100.00%	
	High valve limit used when optimizing cooling and heating set points, Gold 8		
4x0066	Optimization low valve position Gold 1	10.00-95.00%	
	Low valve limit used when optimizing cooling and heating set points, Gold 1		
...
4x0073	Optimization low valve position Gold 8	10.00-95.00%	
	Low valve limit used when optimizing cooling and heating set points, Gold 8		
4x0074	Optimization delay Gold 1	0-600min	
	Delay time for optimization of cooling and heating set points, Gold 1		
...
4x0081	Optimization delay Gold 8	0-600min	
	Delay time for optimization of cooling and heating set points, Gold 8		

Holding Registers. 16-bit integer value (R/W).

Modbus	Name	Min/Max	Misc
4x0082	Basic heating set point, Gold 1	5.00-60.00°C	
	Gold 1 heating set point used when no optimization or as starting point when activating optimization.		
...	
4x0089	Basic heating set point, Gold 8	5.00-60.00°C	
	Gold 8 heating set point used when no optimization or as starting point when activating optimization.		
4x0090	Basic cooling set point, Gold 1	-5.00-25.00°C	
	Gold 1 cooling set point used when no optimization or as starting point when activating optimization.		
...			
4x0097	Basic cooling set point, Gold 8	-5.00-25.00°C	
	Gold 8 cooling set point used when no optimization or as starting point when activating optimization.		
4x0098- 4x0100	SPARE		
4x101	IP_Addr_0	0-255	
	IP adress part 1		
4x102	IP_Addr_1	0-255	
	IP adress part 2		
4x103	IP_Addr_2	0-255	
	IP adress part 3		
4x104	IP_Addr_3	0-255	
	IP adress part 4		
4x0105	WEB_Server_Port	0-255	
	Port Number		
4x0106- 4x0110	SPARE		
4x0111	Year	2000-2100	
	Date setting Year		
4x0112	Month	1-12	
	Date setting month		
4x0113	Day	1-31	
	Date setting Day		
4x0114	Hour	0-23	
	Time setting Hour		
4x0115	Minute	0-59	
	Time setting Minute		
4x0116	OpModeAction	0-7	
	Time channel action 0 = Auto - Auto 1 = Auto, No Cooling - Auto 2 = Auto-Low Speed 3 = Auto No Cooling - Low Speed 4 = Auto - High Speed 5 = Auto, No Cooling - High Speed 6 = Low Speed - HighSpeed 7 = Low Speed, No Cooling - High Speed		

Holding Registers. 16-bit integer value (R/W).

Modbus	Name	Min/Max	Misc
4x0117	TimeChOpModeStatus0	0-10	
	Time channel 1 Day selection 0 = Inactive 1 = Monday 2 = Tuesday 3 = Wednesday 4 = Thursday 5 = Friday 6 = Saturday 7 = Sunday 8 = Monday - Sunday 9 = Monday - Friday 10 = Saturday - Sunday		
...	...		
4x0124	TimeChOpModeStatus7	0-10	
	Time channel 8 Day selection 0 = Inactive 1 = Monday 2 = Tuesday 3 = Wednesday 4 = Thursday 5 = Friday 6 = Saturday 7 = Sunday 8 = Monday - Sunday 9 = Monday - Friday 10 = Saturday - Sunday		
4x0125	TimeChOpModeStartH0	0-23	
	Time channel 1 Hour start		
...	...		
4x0132	TimeChOpModeStartH7	0-23	
	Time channel 8 Hour start		
4x0133	TimeChOpModeStartM0	0-59	
	Time channel 1 Minute start		
...	...		
4x0140	TimeChOpModeStartM7	0-59	
	Time channel 8 Minute start		
4x0141	TimeChOpModeStopH0	0-23	
	Time channel 1 Hour stop		
...	...		
4x0148	TimeChOpModeStopH7	0-23	
	Time channel 8 Hour stop		
4x0149	TimeChOpModeStopM0	0-59	
	Time channel 1 Minute stop		
...	...		
4x0156	TimeChOpModeStopM7	0-59	
	Time channel 8 Minute stop		

Holding Registers. 16-bit integer value (R/W).

Modbus	Name	Min/Max	Misc
4x0157	YearChOpModeAction0	0-7	
	Year channel 1 action 0 = Year channel off, 1 = Stop, No Cooling 2 = Auto 3 = Auto, No Cooling 4 = Low Speed 5 = Low Speed, No Cooling 6= High Speed 7 = High Speed, No Cooling		
...			
4x0164	YearChOpModeActive7	0-7	
	Year channel 8 action 0 = Year channel off, 1 = Stop, No Cooling 2 = Auto 3 = Auto, No Cooling 4 = Low Speed 5 = Low Speed, No Cooling 6= High Speed 7 = High Speed, No Cooling		
4x0165	YearChOpModeStartY0	2010-2100	
	Year channel 1 Year start		
...			
4x0172	YearChOpModeStartY7	2010-2100	
	Year channel 8 Year start		
4x0173	YearChOpModeStartMo0	1-12	
	Year channel 1 Month start		
...			
4x0180	YearChOpModeStartMo7	1-12	
	Year channel 8 Month start		
4x0181	YearChOpModeStartD0	1-31	
	Year channel 1 Day start		
...			
4x0188	YearChOpModeStartD7	1-31	
	Year channel 8 Day start		
4x0189	YearChOpModeStartH0	0-23	
	Year channel 1 Hour start		
...			
4x0196	YearChOpModeStartH7	0-23	
	Year channel 8 Hour start		
4x0197	YearChOpModeStartM0	0-59	
	Year channel 1 Minute start		
...			
4x0197	YearChOpModeStartM7	0-59	
	Year channel 8 Minute start		
4x0205	YearChOpModeStopY0	2010-2100	
	Year channel 1 Year stop		
...			
4x0212	YearChOpModeStopY7	2010-2100	
	Year channel 8 Year stop		
4x0213	YearChOpModeStopMo0	1-12	
	Year channel 1 Month stop		
...			

Holding Registers. 16-bit integer value (R/W).

Modbus	Name	Min/Max	Misc
4x0220	YearChOpModeStopMo7 Year channel 8 Month stop	1-12	
4x0221	YearChOpModeStopD0 Year channel 1 Day stop	1-31	
...			
4x0228	YearChOpModeStopD7 Year channel 8 Day stop	1-31	
4x0229	YearChOpModeStopH0 Year channel 1 Hour stop	0-23	
...			
4x0236	YearChOpModeStopH7 Year channel 8 Hour stop	0-23	
4x0237	YearChOpModeStopM0 Year channel 1 Minute stop	0-59	
...			
4x0244	YearChOpModeStopM7 Year channel 8 Minute stop	0-59	
4x0245- 4x0400	SPARE		
4x0401	Port_Nmbr_UserSet00 Gold 1 Port number	1-30000	
...	...		
4x0408	Port_Nmbr_UserSet07 Gold 8 Port number	1-30000	
4x0409	Port_Nmbr_UserSet08 Super WISE 1 Port number	1-30000	
...	...		
4x0416	Port_Nmbr_UserSet15 Super WISE 8 Port number	1-30000	
4x0417- 4x0430	SPARE		
4x0431	Port_IP3_UserSet00 Gold 1 IP number part A	0-255	
...	...		
4x0438	Port_IP3_UserSet07 Gold 8 IP number part A	0-255	
4x0439	Port_IP3_UserSet08 Super WISE 1 IP number part A	0-255	
...	...		
4x0446	Port_IP3_UserSet15 Super WISE 8 IP number part A	0-255	
4x0447- 4x0460	SPARE		
4x0461	Port_IP2_UserSet00 Gold 1 IP number part B	0-255	
...	...		
4x0468	Port_IP2_UserSet07 Gold 8 IP number part B	0-255	
4x0469	Port_IP2_UserSet08 Super WISE 1 IP number part B	0-255	
...	...		

Holding Registers. 16-bit integer value (R/W).

Modbus	Name	Min/Max	Misc
4x0476	Port_IP2_UserSet15 Super WISE 8 IP number part B	0-255	
4x0477- 4x0490	SPARE		
4x0491	Port_IP1_UserSet00 Gold 1 IP number part C	0-255	
...	...		
4x0498	Port_IP1_UserSet07 Gold 8 IP number part C	0-255	
4x0499	Port_IP1_UserSet08 Super WISE 1 IP number part C	0-255	
...	...		
4x0506	Port_IP1_UserSet15 Super WISE 8 IP number part C	0-255	
4x0507- 4x0520	SPARE		
4x0521	Port_IP0_UserSet00 Gold 1 IP number part D	0-255	
...	...		
4x0528	Port_IP0_UserSet07 Gold 8 IP number part D	0-255	
4x0529	Port_IP0_UserSet08 Super WISE 1 IP number part D	0-255	
...	...		
4x0536	Port_IP0_UserSet15 Super WISE 8 IP number part D	0-255	