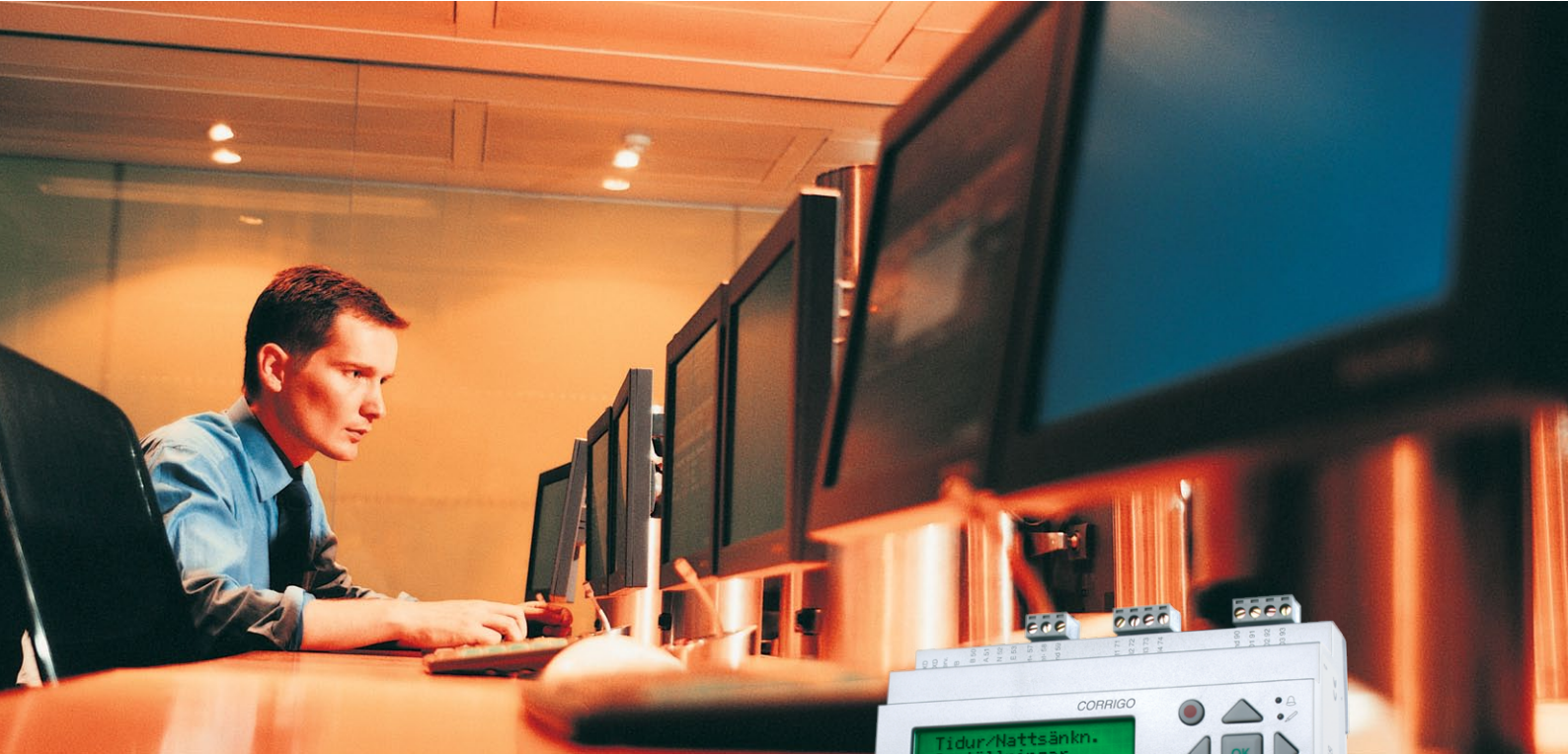


# Corrigo E Heating

## List of network variables for EXOline and Modbus communication

Covers all versions of Corrigo E Heating from revision 3.1



Revision: "!"  
Date: #9 > RCTY 201#

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Revision 10, March 2012

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# Table of contents

<b>CHAPTER 1 CORRIGO E WITH MODBUS AND EXOLINE COMMUNICATION .....</b>	<b>5</b>
<b>CHAPTER 2 ACTUAL/SETPOINT .....</b>	<b>8</b>
2.1. General .....	8
2.2. Heating System 1 (HS1) .....	8
2.3. Heating System 2 (HS2) .....	10
2.4. Heating System 3 (HS3) .....	11
2.5. Hot Water 1 (HWC1) .....	12
2.6. Hot Water 2 (HWC2) .....	13
2.7. Primary Tap Hot Water (HP1) .....	13
2.8. Boiler Control .....	13
2.9. Cooling system (CS1) .....	14
2.10. Difference Pressure Control (DP) .....	14
2.11. Wind speed .....	14
<b>CHAPTER 3 ENERGY/COLD WATER .....</b>	<b>15</b>
3.1. Heating Meter .....	15
3.2. Cold Water Meter 1 (CW1) .....	15
3.3. Cold Water Meter 2 (CW2) .....	16
3.4. Electricity Meter .....	16
3.5. Leakage monitoring .....	16
3.6. District heat meter M-Bus .....	16
3.7. Water meter 1 M-Bus .....	17
3.8. Water meter 2 M-Bus .....	17
<b>CHAPTER 4 INPUT/OUTPUT .....</b>	<b>18</b>
4.1. Analogue inputs .....	18
4.2. Digital inputs .....	19
4.3. Universal inputs .....	21
4.4. Analogue outputs .....	24
4.5. Digital outputs .....	26
<b>CHAPTER 5 TIME SETTINGS .....</b>	<b>29</b>
5.1. HS1 Night Setback and Comfort Time .....	29
5.2. HS2 Night Setback and Comfort Time .....	30
5.3. HS3 Night Setback and Comfort Time .....	31
5.4. HWC1 Night Setback and Comfort Time .....	32
5.5. HWC2 Night Setback and Comfort Time .....	33
5.6. CS1 Night Setback and Comfort Time .....	34
5.7. Timer output 1 .....	35
5.8. Timer output 2 .....	36
5.9. Timer output 3 .....	37
5.10. Timer output 4 .....	38
5.11. Timer output 5 .....	39
5.12. Holidays .....	40
5.13. Real Time Clock .....	41
<b>CHAPTER 6 SETTINGS .....</b>	<b>42</b>
6.1. Control temp .....	42
6.2. Control pressure (DP) .....	42
6.3. Alarm limits .....	43
6.4. Alarm delays .....	43
<b>CHAPTER 7 MANUAL/AUTO .....</b>	<b>44</b>
7.1. Manual/Auto .....	44
<b>CHAPTER 8 ALARM STATUS .....</b>	<b>48</b>

8.1. Alarm status.....	48
8.2. Alarm points .....	51
8.3. Alarm Acknowledging, Blocking and Unblocking.....	53

# Chapter 1 Corrigo E with Modbus and EXOline communication

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## Introduction

Corrigo E Heating is a pre-programmed application controller for controlling of an heating system. This controller can either be stand-alone or built-in in an existing EXO-project, in both case it's configured by the display or by a configuration tool on pc (E tool). This document will describe all the signals that are accessible via EXOline or Modbus. This document will not describe how to create an EXO project.

## Signal types

All signals that are accessible from a SCADA system are described further in this document. The signals that have a default value are settings that can be changed from SCADA, the signals without default values is actual values and they cannot be changed from SCADA.

## EXOL type

The EXOL type of the signals:

R = Real (-3.3E38 - 3.3E38)

I = Integer (-32768 - 32767)

X = Index (0 - 255)

L = Logic (0/1)

## Modbus type

The Modbus type of the signals (type in the list below):

1 = Coil Status Register (Modbus function = 1, 5 and 15)

2 = Input Status Register (Modbus function = 2)

3 = Holding Register (Modbus function = 3, 6 and 16)

4 = Input Register (Modbus function = 4)

Supported Modbus functions:

1 = Read Coils

2 = Read Discrete Input

3 = Read Holding Register

4 = Read Input Register

5 = Write Single Coil

6 = Write Single Register

15 = Write Multiple Coils

16 = Write Multiple Registers

## Max 47 register

Max 47 register can be read in one message.

## Communication limits

The modbus master must wait for a minimum of 3.5 charactertimes (4ms at 9600 bps) between two messages. When the modbus master communicate with more than one Corrigo E controller on the same communication line (RS485), the modbus master must wait for a minimum of 14 charactertimes (16ms at 9600bps) between the answer and the first question for the next controller.

In the Corrigo E controller there is a limit of 10 fast communications in every half minute, the other communications will have a delayed answer of approximately 1 second.

## Scale factor Modbus

Real signals have scale factor 10 except the time settings signals that have scale factor 100 and Air flow signals that have scale factor 1 for modbus communication. Integer, Index and Logic has always scale factor 1.

## Modbus activation

Corrigo E uses the same port for both Modbus communication and for EXOline communication. If you try to communicate with a Modbus-activated unit using E tool or other EXOline communication the input port will automatically adapt itself after approx. 1 second. The port will remain in EXO-mode until 10 seconds of communication inactivity have passed after which it will revert to Modbus mode.

## Modbus wiring etc.

A protocol such as Modbus consists of several layers (OSI-model). The bottom layer is always the physical layer, number of wires and signal levels. the next layer describes the communication digits (number of data bits, stop-bits, parity etc). Then come the layers describing the Modbus specific functions (number of digits per message, the meaning of different messages etc).

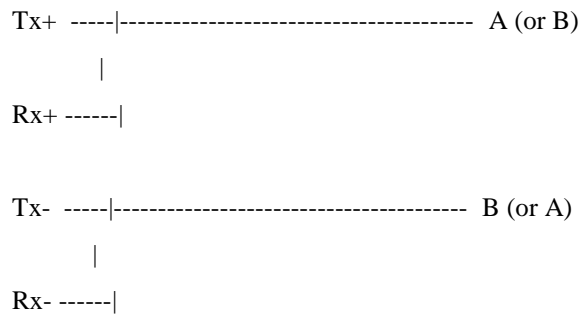
For Modbus, the bottom layer can be RS485, RS422 or RS232.

## RS485 contra RS422

RS485 and RS422 are the electric part of the protocol, i. e. the physical layer. RS485 has two connections, A and B. Often there is also a protective earth (N on EXOmodules). RS485 units are always connected A → A and B → B. RS485 is so-called half duplex communication: Communication can only go in one direction at a time; i. e. the master will first send an enquiry and will thereafter listen for the reply. A and B are used for both transmission and reception.

RS422 is a full duplex communication which means you need 4 wires, 2 for transmit (Tx+ and Tx-) and 2 for receive (Rx+ and Rx-). Tx is used to transmit and Rx to receive which means that Tx in one unit must be connected to Rx in the other and vice versa. As for signal levels etc. RS422 and RS485 are identical.

To interconnect RS485 and RS422: On the RS422 unit connect Tx+ with Rx+ and Tx- with Rx-. We have now changed a 4-wire system to a 2-wire system and can connect them to A and B on the RS485 unit. Which goes where is something you most often need to find out by trial and error. Incorrect polarity will just give non-function but cannot harm either unit.



### Bitrate, stop bits, parity

Bitrate, one stop bit, parity is the next layer.

These settings must correspond to the settings in the master unit. Find out how the master is set and then give the Corrigo E the same settings.

Parity can be set to odd, even or none. You can only choose one stop-bit. 1 start-bit, 8 data-bits, 1 parity-bit and 1 stop-bit give a total of 11 bits which is the maximum.

# Chapter 2 Actual/Setpoint

## 2.1. General

Signal name	Type	Modbus address	Default value	Description
HeatingActual.Cor_OutDoorTemp(0)	R,4	1		Outdoor temperature
HeatingActual.Cor_OutDoorTemp(0)	R,3	507		Outdoor temperature (can be modified if not connected to a physic analogue input)
HeatingActual.Cor_HPSupplyTemp	R,4	358		Heating Primary supply temperature
HeatingActual.Cor_HPReturnTemp	R,4	359		Heating Primary return temperature
HeatingActual.Cor_CPSupplyTemp	R,4	360		Cooling Primary supply temperature
HeatingActual.Cor_CPReturnTemp	R,4	361		Cooling Primary return temperature
HeatingActual.Cor_ExtraSensor1	R,4	362		Additional sensor 1
HeatingActual.Cor_ExtraSensor2	R,4	363		Additional sensor 2
HeatingActual.Cor_ExtraSensor3	R,4	364		Additional sensor 3
HeatingActual.Cor_ExtraSensor4	R,4	365		Additional sensor 4
HeatingActual.Cor_ExtraSensor5	R,4	366		Additional sensor 5
TimePro.TimeGroupHS1	L,2	1		Is set if timechannel comfort time HS1 is active
TimePro.TimeGroupHS2	L,2	2		Is set if timechannel comfort time HS1 is active
TimePro.TimeGroupHS3	L,2	3		Is set if timechannel comfort time HS1 is active
TimePro.TimeGroupHW1	L,2	4		Is set if timechannel comfort time HW1 is active
TimePro.TimeGroupHW2	L,2	5		Is set if timechannel comfort time HW2 is active
TimePro.TimeGroupCor_ExtraTimeGroup1	L,2	6		Is set if timer output 1 is active
TimePro.TimeGroupCor_ExtraTimeGroup2	L,2	7		Is set if timer output 2 is active
TimePro.TimeGroupCor_ExtraTimeGroup3	L,2	8		Is set if timer output 3 is active
TimePro.TimeGroupCor_ExtraTimeGroup4	L,2	9		Is set if timer output 4 is active
TimePro.TimeGroupCor_ExtraTimeGroup5	L,2	10		Is set if timer output 5 is active
TimePro.TimeGroupCS1	L,2	237		Is set if timechannel comfort time CS1 is active

## 2.2. Heating System 1 (HS1)

Signal name	Type	Modbus address	Default value	Description
HeatingActual.Cor_HS1PID_Input	R,4	2		Supply temperature HS1
HeatingActual.Cor_HS1PID_SetP	R,4	3		Outdoor compensated setpoint supply temperature HS1



Signal name	Type	Modbus address	Default value	Description
HeatingSettings.Cor_HS1Curve_X1	I,3	1	-20°C	Outdoor temp for first curvepoint for outdoor compensated setpoint HS1
HeatingSettings.Cor_HS1Curve_X2	I,3	2	-15°C	Outdoor temp for second curvepoint for outdoor compensated setpoint HS1
HeatingSettings.Cor_HS1Curve_X3	I,3	3	-10°C	Outdoor temp for third curvepoint for outdoor compensated setpoint HS1
HeatingSettings.Cor_HS1Curve_X4	I,3	4	-5°C	Outdoor temp for fourth curvepoint for outdoor compensated setpoint HS1
HeatingSettings.Cor_HS1Curve_X5	I,3	5	0°C	Outdoor temp for fifth curvepoint for outdoor compensated setpoint HS1
HeatingSettings.Cor_HS1Curve_X6	I,3	6	5°C	Outdoor temp for sixth curvepoint for outdoor compensated setpoint HS1
HeatingSettings.Cor_HS1Curve_X7	I,3	7	10°C	Outdoor temp for seventh curvepoint for outdoor compensated setpoint HS1
HeatingSettings.Cor_HS1Curve_X8	I,3	8	15°C	Outdoor temp for eighth curvepoint for outdoor compensated setpoint HS1
HeatingSettings.Cor_HS1Curve_Y1	I,3	9	67°C	Setpoint for first curvepoint for outdoor compensated setpoint HS1
HeatingSettings.Cor_HS1Curve_Y2	I,3	10	63°C	Setpoint for second curvepoint for outdoor compensated setpoint HS1
HeatingSettings.Cor_HS1Curve_Y3	I,3	11	59°C	Setpoint for third curvepoint for outdoor compensated setpoint HS1
HeatingSettings.Cor_HS1Curve_Y4	I,3	12	55°C	Setpoint for fourth curvepoint for outdoor compensated setpoint HS1
HeatingSettings.Cor_HS1Curve_Y5	I,3	13	53°C	Setpoint for fifth curvepoint for outdoor compensated setpoint HS1
HeatingSettings.Cor_HS1Curve_Y6	I,3	14	43°C	Setpoint for sixth curvepoint for outdoor compensated setpoint HS1
HeatingSettings.Cor_HS1Curve_Y7	I,3	15	35°C	Setpoint for seventh curvepoint for outdoor compensated setpoint HS1
HeatingSettings.Cor_HS1Curve_Y8	I,3	16	25°C	Setpoint for eighth curvepoint for outdoor compensated setpoint HS1
Heating1.Cor_HS1ParallelTransfer	R,3	535	0 °C	Parallel transfer of setpointcurve HS1
HeatingActual.Cor_HS1RoomTemp	R,4	4		Room temperature HS1
HeatingSettings.Cor_HS1RoomSetP	R,3	17	21°C	Setpoint room temperature HS1
HeatingActual.Cor_HS1ReturnTemp	R,4	5		Return temperature HS1
HeatingActual.Cor_HS1PumpARun(0)	L,2	11		Is set if running pump HS1 P1A
HeatingActual.Cor_HS1PumpBRun	L,2	12		Is set if running pump HS1 P1B
HeatingActual.Cor_HS1PumpAStart(0)	L,2	103		Start signal pump HS1 P1A
HeatingActual.Cor_HS1PumpBStart	L,2	104		Start signal pump HS1 P1B
HeatingActual.Cor_HS1CV1(0)	R,4	153		Control signal HS1 CV (0-10 V)
HeatingActual.Cor_HS1PID_Output	R,4	160		Controller output HS1 (0-100%)
HeatingActual.Cor_HS1RetPID_Output	R,4	346		Controller output HS1 Return temp. (0-100%)
HeatingSettings.Cor_HS1PumpDayLimit(0)	R,3	521	17°C	Outdoor temp for pump stop day HS1
HeatingSettings.Cor_HS1PumpNightLimit(0)	R,3	524	17°C	Outdoor temp for pump stop night HS1
HeatingSettings.Cor_PowerLimit_SetPoint	R,3	617		Setpoint HS1 power limit

Signal name	Type	Modbus address	Default value	Description
HeatingSettings.Cor_PowerLimitPID_Pgain	R,3	620		P-band HS1 power limit
HeatingSettings.Cor_PowerLimitPID_Itime	R,3	621		I-time HS1 power limit
HeatingActual.Cor_PowerLimitPID_Input	R,4	353		Controller Input HS1 power limit (kW)
HeatingActual.Cor_PowerLimitPID_SetP	R,4	355		Controller Setpoint HS1 power limit (kW)
HeatingActual.Cor_HS1OptActualStartTime(0)	R,4	350		Start Optimizer, Time until start HS1

### 2.3. Heating System 2 (HS2)

Signal name	Type	Modbus address	Default value	Description
HeatingActual.Cor_HS2PID_Input	R,4	6		Supply temperature HS2
HeatingActual.Cor_HS2PID_SetP	R,4	7		Outdoor compensated setpoint supply temperature HS2
HeatingSettings.Cor_HS2Curve_X1	I,3	18	-20°C	Outdoor temp for first curvepoint for outdoor compensated setpoint HS2
HeatingSettings.Cor_HS2Curve_X2	I,3	19	-15°C	Outdoor temp for second curvepoint for outdoor compensated setpoint HS2
HeatingSettings.Cor_HS2Curve_X3	I,3	20	-10°C	Outdoor temp for third curvepoint for outdoor compensated setpoint HS2
HeatingSettings.Cor_HS2Curve_X4	I,3	21	-5°C	Outdoor temp for fourth curvepoint for outdoor compensated setpoint HS2
HeatingSettings.Cor_HS2Curve_X5	I,3	22	0°C	Outdoor temp for fifth curvepoint for outdoor compensated setpoint HS2
HeatingSettings.Cor_HS2Curve_X6	I,3	23	5°C	Outdoor temp for sixth curvepoint for outdoor compensated setpoint HS2
HeatingSettings.Cor_HS2Curve_X7	I,3	24	10°C	Outdoor temp for seventh curvepoint for outdoor compensated setpoint HS2
HeatingSettings.Cor_HS2Curve_X8	I,3	25	15°C	Outdoor temp for eighth curvepoint for outdoor compensated setpoint HS2
HeatingSettings.Cor_HS2Curve_Y1	I,3	26	67°C	Setpoint for first curvepoint for outdoor compensated setpoint HS2
HeatingSettings.Cor_HS2Curve_Y2	I,3	27	63°C	Setpoint for second curvepoint for outdoor compensated setpoint HS2
HeatingSettings.Cor_HS2Curve_Y3	I,3	28	59°C	Setpoint for third curvepoint for outdoor compensated setpoint HS2
HeatingSettings.Cor_HS2Curve_Y4	I,3	29	55°C	Setpoint for fourth curvepoint for outdoor compensated setpoint HS2
HeatingSettings.Cor_HS2Curve_Y5	I,3	30	53°C	Setpoint for fifth curvepoint for outdoor compensated setpoint HS2
HeatingSettings.Cor_HS2Curve_Y6	I,3	31	43°C	Setpoint for sixth curvepoint for outdoor compensated setpoint HS2
HeatingSettings.Cor_HS2Curve_Y7	I,3	32	35°C	Setpoint for seventh curvepoint for outdoor compensated setpoint HS2
HeatingSettings.Cor_HS2Curve_Y8	I,3	33	25°C	Setpoint for eighth curvepoint for outdoor compensated setpoint HS2

Signal name	Type	Modbus address	Default value	Description
HeatingSettings.Cor_HS2ParallelTransfer	R,3	536	0 °C	Parallel transfer of setpointcurve HS2
HeatingActual.Cor_HS2RoomTemp	R,4	8		Room temperature HS2
HeatingSettings.Cor_HS2RoomSetP	R,3	34	21°C	Setpoint room temperature HS2
HeatingActual.Cor_HS2ReturnTemp	R,4	9		Return temperature HS2
HeatingActual.Cor_HS2PumpARun	L,2L,2	13		Is set if running pump HS2 P1A
HeatingActual.Cor_HS2PumpBRun	L,2L,2	14		Is set if running pump HS2 P1B
HeatingActual.Cor_HS2PumpAStart	L,2	105		Start signal pump HS2 P1A
HeatingActual.Cor_HS2PumpBStart	L,2	106		Start signal pump HS2 P1B
HeatingActual.Cor_HS2CV1	R,4	154		Control signal HS2 CV (0-10 V)
HeatingActual.Cor_HS2RetPID_Output	R,4	347		Controller output HS2 Return temp. (0-100%)
HeatingActual.Cor_HS2PID_Output	R,4	161		Controller output HS2 (0-100%)
HeatingSettings.Cor_HS2PumpDayLimit(0)	R,3	522	17°C	Outdoor temp for pump stop day HS2
HeatingSettings.Cor_HS2PumpNightLimit(0)	R,3	525	17°C	Outdoor temp for pump stop night HS2
HeatingActual.Cor_HS2OptActualStartTime	X,4	351		Start Optimizer, Time until start HS2

## 2.4. Heating System 3 (HS3)

Signal name	Type	Modbus address	Default value	Description
HeatingActual.Cor_HS3PID_Input	R,4	10		Supply temperature HS3
HeatingActual.Cor_HS3PID_SetP	R,4	11		Outdoor compensated setpoint supply temperature HS3
HeatingSettings.Cor_HS3Curve_X1	I,3	35	-20°C	Outdoor temp for first curvepoint for outdoor compensated setpoint HS3
HeatingSettings.Cor_HS3Curve_X2	I,3	36	-15°C	Outdoor temp for second curvepoint for outdoor compensated setpoint HS3
HeatingSettings.Cor_HS3Curve_X3	I,3	37	-10°C	Outdoor temp for third curvepoint for outdoor compensated setpoint HS3
HeatingSettings.Cor_HS3Curve_X4	I,3	38	-5°C	Outdoor temp for fourth curvepoint for outdoor compensated setpoint HS3
HeatingSettings.Cor_HS3Curve_X5	I,3	39	0°C	Outdoor temp for fifth curvepoint for outdoor compensated setpoint HS3
HeatingSettings.Cor_HS3Curve_X6	I,3	40	5°C	Outdoor temp for sixth curvepoint for outdoor compensated setpoint HS3
HeatingSettings.Cor_HS3Curve_X7	I,3	41	10°C	Outdoor temp for seventh curvepoint for outdoor compensated setpoint HS3
HeatingSettings.Cor_HS3Curve_X8	I,3	42	15°C	Outdoor temp for eighth curvepoint for outdoor compensated setpoint HS3
HeatingSettings.Cor_HS3Curve_Y1	I,3	43	67°C	Setpoint for first curvepoint for outdoor compensated setpoint HS3
HeatingSettings.Cor_HS3Curve_Y2	I,3	44	63°C	Setpoint for second curvepoint for outdoor compensated setpoint HS3

Signal name	Type	Modbus address	Default value	Description
HeatingSettings.Cor_HS3Curve_Y3	I,3	45	59°C	Setpoint for third curvepoint for outdoor compensated setpoint HS3
HeatingSettings.Cor_HS3Curve_Y4	I,3	46	55°C	Setpoint for fourth curvepoint for outdoor compensated setpoint HS3
HeatingSettings.Cor_HS3Curve_Y5	I,3	47	53°C	Setpoint for fifth curvepoint for outdoor compensated setpoint HS3
HeatingSettings.Cor_HS3Curve_Y6	I,3	48	43°C	Setpoint for sixth curvepoint for outdoor compensated setpoint HS3
HeatingSettings.Cor_HS3Curve_Y7	I,3	49	35°C	Setpoint for seventh curvepoint for outdoor compensated setpoint HS3
HeatingSettings.Cor_HS3Curve_Y8	I,3	50	25°C	Setpoint for eighth curvepoint for outdoor compensated setpoint HS3
Heating1. Cor_HS3ParallelTransfer	R,3	537	0 °C	Parallel transfer of setpointcurve HS3
HeatingActual.Cor_HS3RoomTemp	R,4	12		Room temperature HS3
HeatingSettings.Cor_HS3RoomSetP	R,3	51	21°C	Setpoint room temperature HS3
HeatingActual.Cor_HS3ReturnTemp	R,4	13		Return temperature HS3
HeatingActual.Cor_HS3PumpARun	L,2	15		Is set if running pump HS3 P1A
HeatingActual.Cor_HS3PumpBRun	L,2	16		Is set if running pump HS3 P1B
HeatingActual.Cor_HS3PumpAStart	L,2	107		Start signal pump HS3 P1A
HeatingActual.Cor_HS3PumpBStart	L,2	108		Start signal pump HS3 P1B
HeatingActual.Cor_HS3CV1	R,4	155		Control signal HS3 CV (0-10 V)
HeatingActual.Cor_HS3PID_Output	R,4	162		Controller output HS3 (0-100%)
HeatingSettings.Cor_HS3PumpDayLimit(0)	R,3	523	17°C	Outdoor temp for pump stop day HS3
HeatingSettings.Cor_HS3PumpNightLimit(0)	R,3	526	17°C	Outdoor temp for pump stop night HS3
HeatingActual.Cor_HS3OptActualStartTime	X,4	352		Start Optimizer, Time until start HS3

## 2.5. Hot Water 1 (HWC1)

Signal name	Type	Modbus address	Default value	Description
HeatingActual.Cor_HW1SupplyTemp	R,4	14		Supply temperature HWC1
HeatingSettings.Cor_HW1Setpoint	R,3	52	55°C	Setpoint supply HWC1
HeatingActual. Cor_HW1PumpRun	L,2	17		Is set if running pump HW1
HeatingActual.Cor_HW1PumpStart	L,2	109		Start signal pump HW1
HeatingActual.Cor_HW1CV1	R,4	156		Control signal HW1 CV (0-10 V)
HeatingActual.Cor_HW1PID_Output	R,4	163		Controller output HW1 (0-100%)

## 2.6. Hot Water 2 (HWC2)

Signal name	Type	Modbus address	Default value	Description
HeatingActual.Cor_HW2SupplyTemp	R,4	15		Supply temperature HWC2
HeatingSettings.Cor_HW2Setpoint	R,3	53	55°C	Setpoint supply HWC2
HeatingActual.Cor_HW2CV1	R,4	157		Control signal HWC2 CV (0-10 V)
HeatingActual.Cor_HW2PID_Output	R,4	164		Controller output HWC2 (0-100%)

## 2.7. Primary Tap Hot Water (HP1)

Signal name	Type	Modbus address	Default value	Description
HeatingActual.Cor_HP1SupplyTemp	R,4	16		Supply temperature HP1
HeatingActual.Cor_HP1ReturnTemp	R,4	17		Return temperature HP1
HeatingActual.Cor_HP1PumpRun	L,2	18		Is set if running pump HP1
HeatingSettings.Cor_HP1StartTemp	R,3	54	46°C	Start temperature for start of load pump HP1 on return temperature
HeatingSettings.Cor_HP1StopTemp	R,3	55	55°C	Stop temperature for stop of load pump HP1 on supply temperature
HeatingSettings.Cor_HP1TempDiff	R,3	56	2°C	Difference temperature for stop of load pump HP1 on return temperature
HeatingActual.Cor_HP1PumpStart	L,2	110		Start signal pump HP1

## 2.8. Boiler Control

Signal name	Type	Modbus address	Default value	Description
HeatingActual.Cor_BoilerTemp	R,4	18		Boiler temperature
HeatingActual.Cor_BoilerReturnTemp	R,4	356		Boiler return temperature
HeatingSettings.Cor_BoilerStartTemp1	R,3	57	45°C	Start temperature boiler for start signal 1
HeatingSettings.Cor_BoilerStartTemp2	R,3	58	40°C	Start temperature boiler for start signal 2
HeatingSettings.Cor_BoilerStopTemp1	R,3	59	55°C	Boiler stop temperature, for stop signal 1
HeatingSettings.Cor_BoilerStopTemp2	R,3	623		Boiler stop temperature 2, for stop signal 2
HeatingActual.Cor_BoilerStart1	L,2	112		Start signal 1 boiler
HeatingActual.Cor_BoilerStart2	L,2	113		Start signal 2 boiler
HeatingSettings.Cor_BoilerStartHyst1	R,3	624		Boiler start hyst.1, for start signal 1
HeatingSettings.Cor_BoilerStartHyst2	R,3	625		Boiler start hyst.2, for start signal 2
HeatingSettings.Cor_BoilerStopHyst1	R,3	626		Boiler stop hyst.1, for stop signal 1
HeatingSettings.Cor_BoilerStopHyst2	R,3	627		Boiler stop hyst.2, for stop signal 2

## 2.9. Cooling system (CS1)

Signal name	Type	Modbus address	Default value	Description
HeatingActual.Cor_CS1PID_Input	R,4	342		Supply temperature CS1
HeatingActual.Cor_CS1PID_SetP	R,4	343		Setpoint supply temperature CS1 dew point compensated
HeatingActual.Cor_CS1RoomTemp	R,4	344		Room temperature CS1
HeatingActual.Cor_CS1ReturnTemp	R,4	345		Return temperature CS1
HeatingActual.Cor_CS1PID_Output	R,4	348		Controller output CS1 (0-100%)
HeatingActual.Cor_CS1CV1	R,4	349		Control signal CS1 CV (0-10 V)
HeatingActual.Cor_RH	R,4	357		Humidity
HeatingActual.Cor_CS1PumpAStart	L,2	238		Start signal pump CS1 P1A
HeatingActual.Cor_CS1PumpBStart	L,2	239		Start signal pump CS1 P1B
HeatingActual.Cor_CS1PumpARun	L,2	240		Is set if running pump CS1 P1A
HeatingActual.Cor_CS1PumpBRun	L,2	241		Is set if running pump CS1 P1B
HeatingSettings.Cor_CS1PumpDayLimit(0)	R,3	604	15°C	Outdoor temp for pump stop day CS1
HeatingSettings.Cor_CS1PumpNightLimit(0)	R,3	605	15°C	Outdoor temp for pump stop night CS1

## 2.10. Difference Pressure Control (DP)

Signal name	Type	Modbus address	Default value	Description
HeatingActual.Cor_DP	R,4	19		Difference pressure (kPa)
HeatingSettings.Cor_DPSetpoint	R,3	60	50 kPa	Setpoint difference pressure
HeatingActual.Cor_FrequencyStart	L,2	111		Start signal Frequencer
HeatingActual.Cor_DPCV1	R,4	158		Control signal Frequencer (0-10 V)
HeatingActual.Cor_DPPID_Output	R,4	165		Controller output Frequencer (0-100%)

## 2.11. Wind speed

Signal name	Type	Modbus address	Default value	Description
HeatingActual.Cor_Windspeed	R,4	20		Wind speed (m/s)
HeatingSettings.Cor_WindScale	R,3	61	1m/s/V	Scale factor for wind speed meter
HeatingSettings.Cor_HS1WindComp	R,3	62	0°C/m/s	Wind compensation HS1
HeatingSettings.Cor_HS2WindComp	R,3	63	0°C/m/s	Wind compensation HS2
HeatingSettings.Cor_HS3WindComp	R,3	64	0°C/m/s	Wind compensation HS3

# Chapter 3 Energy/Cold water

## 3.1. Heating Meter

Signal name	Type	Modbus address	Default value	Description
HeatingActual.Cor_EnergyConsumptionMWh	R,3	65		Energy total (MWh)
HeatingActual.Cor_WaterConsumptionm3	R,3	66		Hot water total (m3)
HeatingActual.Cor_EnergyConsumptionToday	R,4	21		Energy today (kWh)
HeatingActual.Cor_EnergyConsumptionYesterday	R,4	22		Energy yesterday (kWh)
HeatingActual.Cor_EnergyConsumptionBeforeYesterday	R,4	23		Energy day before yesterday (kWh)
HeatingActual.Cor_WaterConsumptionToday	R,4	24		Usage today (l)
HeatingActual.Cor_WaterConsumptionYesterday	R,4	25		Usage yesterday (l)
HeatingActual.Cor_WaterConsumptionBeforeYesterday	R,4	26		Usage day before yesterday (l)
HeatingActual.Cor_EnergyEffect	R,4	27		Power usage instant (kW)
HeatingActual.Cor_EnergyEffectAverage	R,4	28		Power usage average
HeatingActual.Cor_EnergyEffectAverageMax	R,4	29		Power usage max average

## 3.2. Cold Water Meter 1 (CW1)

Signal name	Type	Modbus address	Default value	Description
HeatingActual.Cor_CW1Consumptionm3	R,3	67		Cold water 1 usage total (m <sup>3</sup> )
HeatingActual.Cor_CW1Flow	R,4	30		Cold water 1 flow (l/min)
HeatingActual.Cor_CW1ConsumptionToday	R,4	31		Cold water 1 usage today (m <sup>3</sup> )
HeatingActual.Cor_CW1ConsumptionYesterday	R,4	32		Cold water 1 usage yesterday (m <sup>3</sup> )
HeatingActual.Cor_CW1ConsumptionBeforeYesterday	R,4	33		Cold water 1 usage day before yesterday (m <sup>3</sup> )
HeatingActual.Cor_CW1LowestConsumptionToday	R,4	34		Lowest cold water 1 usage today (l/h)
HeatingActual.Cor_CW1LowestConsumptionYesterday	R,4	35		Lowest cold water 1 usage yesterday (l/h)

### 3.3. Cold Water Meter 2 (CW2)

Signal name	Type	Modbus address	Default value	Description
HeatingActual.Cor_CW2Consumptionm3	R,3	68		Cold water 2 usage total (m <sup>3</sup> )
HeatingActual.Cor_CW2Flow	R,4	36		Cold water 2 flow (l/min)
HeatingActual.Cor_CW2ConsumptionToday	R,4	37		Cold water 2 usage today (m <sup>3</sup> )
HeatingActual.Cor_CW2ConsumptionYesterday	R,4	38		Cold water 2 usage yesterday (m <sup>3</sup> )
HeatingActual.Cor_CW2ConsumptionBeforeYesterday	R,4	39		Cold water 2 usage day before yesterday (m <sup>3</sup> )
HeatingActual.Cor_CW2LowestConsumptionToday	R,4	40		Lowest cold water 2 usage today (l/h)
HeatingActual.Cor_CW2LowestConsumptionYesterday	R,4	41		Lowest cold water 2 usage yesterday (l/h)

### 3.4. Electricity Meter

Signal name	Type	Modbus address	Default value	Description
HeatingActual.Cor_ElectricConsumptionMWh	R,3	69		Energy total (MWh)

### 3.5. Leakage monitoring

Signal name	Type	Modbus address	Default value	Description
HeatingActual.Cor_Leak	R,4	42		Leakage power (kW)

### 3.6. District heat meter M-Bus

Signal name	Type	Modbus address	Default value	Description
MeterDat.Pages(1).TempForw	R,4	367		Supply temperature (°C)
MeterDat.Pages(1).TempRet	R,4	368		Return Temperature (°C)
MeterDat.Pages(1).Energy	R,4	369		Energy (Mwh)
MeterDat.Pages(1).Power	R,4	370		Power (Kw)
MeterDat.Pages(1).Volume	R,4	371		Volume (m <sup>3</sup> )



Signal name	Type	Modbus address	Default value	Description
MeterDat.Pages(1).Flow	R,4	372		Flow (l/m)

### 3.7. Water meter 1 M-Bus

Signal name	Type	Modbus address	Default value	Description
MeterDat.Pages(2).Volume	R,4	373		Volume (m <sup>3</sup> )
MeterDat.Pages(2).Flow	R,4	374		Flow (l/m)

### 3.8. Water meter 2 M-Bus

Signal name	Type	Modbus address	Default value	Description
MeterDat.Pages(3).Volume	R,4	375		Volume (m <sup>3</sup> )
MeterDat.Pages(3).Flow	R,4	376		Flow (l/m)

# Chapter 4 Input/Output

## 4.1. Analogue inputs

Signal name	Type	Modbus address	Default value	Description
HeatingActual.Cor_AnalogInput1(0)	R,4	43		The scaled and filtered value of AI1
HeatingActual.Cor_AnalogInput2	R,4	44		The scaled and filtered value of AI2
HeatingActual.Cor_AnalogInput3	R,4	45		The scaled and filtered value of AI3
HeatingActual.Cor_AnalogInput4	R,4	46		The scaled and filtered value of AI4
HeatingSettings.Cor_Ai1(0)	X,4	51		Connected signal on AI1: 0=Not active 1=Outdoor temp 2=HS1 Supply 3=HS2 Supply 4=HS3 Supply 5=CS1 Supply 6=HW1 Supply 7=HW2 Supply 8=HP1 Supply 9=HS1 Room 10=HS2 Room 11=HS3 Room 12=CS1 Room 13=CS1 Room (V) 14=HS1 Return 15=HS2 Return 16=HS3 Return 17= CS1 Return 18=HW1 Return 19=HP1 Return 20=Wind 21=Pressure 22=Boiler temp 23=Boiler Return 24=RH 25=HP Supply 26=HP Return 27=CP Supply 28=CP Return 29=Ext.sensor1 30=Ext.sensor2 31=Ext.sensor3 32=Ext.sensor4 33=Ext.sensor5
HeatingSettings.Cor_Ai2	X,4	52		Connected signal on AI2: (See signal list for AI1)
HeatingSettings.Cor_Ai3	X,4	53		Connected signal on AI3: (See signal list for AI1)

Signal name	Type	Modbus address	Default value	Description
HeatingSettings.Cor_Ai4	X,4	54		Connected signal on AI4: (See signal list for AI1)
HeatingActual.Cor_ExpAnalogInput(0)	R,4	252		The scaled and filtered value of EXP1 AI1
HeatingActual.Cor_ExpAnalogInput(1)	R,4	253		The scaled and filtered value of EXP1 AI2
HeatingActual.Cor_ExpAnalogInput(2)	R,4	254		The scaled and filtered value of EXP1 AI3
HeatingActual.Cor_ExpAnalogInput(3)	R,4	255		The scaled and filtered value of EXP1 AI4
HeatingActual.Cor_ExpAnalogInput(8)	R,4	260		The scaled and filtered value of EXP2 AI1
HeatingActual.Cor_ExpAnalogInput(9)	R,4	261		The scaled and filtered value of EXP2 AI2
HeatingActual.Cor_ExpAnalogInput(10)	R,4	262		The scaled and filtered value of EXP2 AI1 3
HeatingActual.Cor_ExpAnalogInput(11)	R,4	263		The scaled and filtered value of EXP2 AI4
HeatingSettings.Cor_ExpAi(0)	X,4	268		Connected signal on EXP1 AI1: (See signal list for AI1)
HeatingSettings.Cor_ExpAi(1)	X,4	269		Connected signal on EXP1 AI2: (See signal list for AI1)
HeatingSettings.Cor_ExpAi(2)	X,4	270		Connected signal on EXP1 AI3: (See signal list for AI1)
HeatingSettings.Cor_ExpAi(3)	X,4	271		Connected signal on EXP1 AI4: (See signal list for AI1)
HeatingSettings.Cor_ExpAi(8)	X,4	276		Connected signal on EXP2 AI1: (See signal list for AI1)
HeatingSettings.Cor_ExpAi(9)	X,4	277		Connected signal on EXP2 AI2: (See signal list for AI1)
HeatingSettings.Cor_ExpAi(10)	X,4	278		Connected signal on EXP2 AI3: (See signal list for AI1)
HeatingSettings.Cor_ExpAi(11)	X,4	279		Connected signal on EXP2 AI4: (See signal list for AI1)

## 4.2. Digital inputs

Signal name	Type	Modbus address	Default value	Description
QDig.DI1	L,2	19		Value of DI1
QDig.DI2	L,2	20		Value of DI2
QDig.DI3	L,2	21		Value of DI3
QDig.DI4	L,2	22		Value of DI4
QDig.DI5	L,2	23		Value of DI5
QDig.DI6	L,2	24		Value of DI6
QDig.DI7	L,2	25		Value of DI7
QDig.DI8	L,2	26		Value of DI8
InputOutput.Exp1DigIn1	L,2	199		Value of EXP1 DI1

Signal name	Type	Modbus address	Default value	Description
InputOutput.Exp1DigIn2	L,2	200		Value of EXP1 DI2
InputOutput.Exp1DigIn3	L,2	201		Value of EXP1 DI3
InputOutput.Exp1DigIn4	L,2	202		Value of EXP1 DI4
InputOutput.Exp1DigIn5	L,2	203		Value of EXP1 DI5
InputOutput.Exp1DigIn6	L,2	204		Value of EXP1 DI6
InputOutput.Exp1DigIn7	L,2	205		Value of EXP1 DI7
InputOutput.Exp1DigIn8	L,2	206		Value of EXP1 DI8
InputOutput.Exp2DigIn1	L,2	218		Value of EXP2 DI1
InputOutput.Exp2DigIn2	L,2	219		Value of EXP2 DI2
InputOutput.Exp2DigIn3	L,2	220		Value of EXP2 DI3
InputOutput.Exp2DigIn4	L,2	221		Value of EXP2 DI4
InputOutput.Exp2DigIn5	L,2	222		Value of EXP2 DI5
InputOutput.Exp2DigIn6	L,2	223		Value of EXP2 DI6
InputOutput.Exp2DigIn7	L,2	224		Value of EXP2 DI7
InputOutput.Exp2DigIn8	L,2	225		Value of EXP2 DI8
HeatingSettings.Cor_Di1(0)	X,4	59		Connected signal on DI1: 0=Not active 1=HS1-PumpA 2=HS1-PumpB 3=HS2-PumpA 4=HS2-PumpB 5=HS3-PumpA 6=HS3-PumpB 7=CS1-PumpA 8=CS1-PumpB 9=HW1-Pump 10=HP1-Pump 11=Frequencer 12=Expansion vessel 13=External alarm 14=Boiler alarm 15=Effect limiter 16=Heating pulse 17=Energy pulse 18=CW1 pulse 19=CW2 pulse 20=Electric pulse 21=CS1 Start
HeatingSettings.Cor_Di2	X,4	60		Connected signal on DI2: (See signal list for DI1)
HeatingSettings.Cor_Di3	X,4	61		Connected signal on DI3: (See signal list for DI1)
HeatingSettings.Cor_Di4	X,4	62		Connected signal on DI4: (See signal list for DI1)
HeatingSettings.Cor_Di5	X,4	63		Connected signal on DI5: (See signal list for DI1)
HeatingSettings.Cor_Di6	X,4	64		Connected signal on DI6: (See signal list for DI1)
HeatingSettings.Cor_Di7	X,4	65		Connected signal on DI7: (See signal list for DI1)

Signal name	Type	Modbus address	Default value	Description
HeatingSettings.Cor_Di8	X,4	66		Connected signal on DI8: (See signal list for DI1)
HeatingSettings.Cor_ExpDi(0)	X,4	284		Connected signal on EXP1 DI1:
HeatingSettings.Cor_ExpDi(1)	X,4	285		Connected signal on EXP1 DI2:
HeatingSettings.Cor_ExpDi(2)	X,4	286		Connected signal on EXP1 DI3:
HeatingSettings.Cor_ExpDi(3)	X,4	287		Connected signal on EXP1 DI4:
HeatingSettings.Cor_ExpDi(4)	X,4	288		Connected signal on EXP1 DI5:
HeatingSettings.Cor_ExpDi(5)	X,4	289		Connected signal on EXP1 DI6:
HeatingSettings.Cor_ExpDi(6)	X,4	290		Connected signal on EXP1 DI7:
HeatingSettings.Cor_ExpDi(7)	X,4	291		Connected signal on EXP1 DI8:
HeatingSettings.Cor_ExpDi(12)	X,4	296		Connected signal on EXP2DI1:
HeatingSettings.Cor_ExpDi(13)	X,4	297		Connected signal on EXP2DI2:
HeatingSettings.Cor_ExpDi(14)	X,4	298		Connected signal on EXP2DI3:
HeatingSettings.Cor_ExpDi(15)	X,4	299		Connected signal on EXP2DI4:
HeatingSettings.Cor_ExpDi(16)	X,4	300		Connected signal on EXP2DI5:
HeatingSettings.Cor_ExpDi(17)	X,4	301		Connected signal on EXP2DI6:
HeatingSettings.Cor_ExpDi(18)	X,4	302		Connected signal on EXP2DI7:
HeatingSettings.Cor_ExpDi(19)	X,4	303		Connected signal on EXP2DI8:

### 4.3. Universal inputs

Signal name	Type	Modbus address	Default value	Description
HeatingActual.Cor_AnalogInput5	R,4	47		The scaled and filtered value of UAI1
HeatingActual.Cor_AnalogInput6	R,4	48		The scaled and filtered value of UAI2
HeatingActual.Cor_AnalogInput7	R,4	49		The scaled and filtered value of UAI3
HeatingActual.Cor_AnalogInput8	R,4	50		The scaled and filtered value of UAI4
HeatingActual.Cor_ExpAnalogInput(4)	R,4	256		The scaled and filtered value of EXP1 UAI1
HeatingActual.Cor_ExpAnalogInput(5)	R,4	257		The scaled and filtered value of EXP1 UAI2
HeatingActual.Cor_ExpAnalogInput(6)	R,4	258		The scaled and filtered value of EXP1 UAI3
HeatingActual.Cor_ExpAnalogInput(7)	R,4	259		The scaled and filtered value of EXP1 UAI4
HeatingActual.Cor_ExpAnalogInput(12)	R,4	264		The scaled and filtered value of EXP2 UAI2
HeatingActual.Cor_ExpAnalogInput(13)	R,4	265		The scaled and filtered value of EXP2 UAI3
HeatingActual.Cor_ExpAnalogInput(14)	R,4	266		The scaled and filtered value of EXP2 UAI4
HeatingActual.Cor_ExpAnalogInput(15)		267		The scaled and filtered value of EXP2 UAI5

Signal name	Type	Modbus address	Default value	Description
HeatingSettings.Cor_UAi1	X,4	55		Connected signal on UAI1: 0=Not active 1=Outdoor temp 2=HS1 Supply 3=HS2 Supply 4=HS3 Supply 5=CS1 Supply 6=HW1 Supply 7=HW2 Supply 8=HP1 Supply 9=HS1 Room 10=HS2 Room 11=HS3 Room 12=CS1 Room 13=CS1 Room (V) 14=HS1 Return 15=HS2 Return 16=HS3 Return 17= CS1 Return 18=HW1 Return 19=HP1 Return 20=Wind 21=Pressure 22=Boiler temp 23=Boiler Return 24=RH 25=HP Supply 26=HP Return 27=CP Supply 28=CP Return 29=Ext.sensor1 30=Ext.sensor2 31=Ext.sensor3 32=Ext.sensor4 33=Ext.sensor5
HeatingSettings.Cor_UAi2	X,4	56		Connected signal on UAI2: (See signal list for UAI1)
HeatingSettings.Cor_UAi3	X,4	57		Connected signal on UAI3: (See signal list for UAI1)
HeatingSettings.Cor_UAi4	X,4	58		Connected signal on UAI4: (See signal list for UAI1)
HeatingSettings.Cor_ExpAi(4)	X,4	272		Connected signal on EXP1 UAI1: (See signal list for UAI1)
HeatingSettings.Cor_ExpAi(5)	X,4	273		Connected signal on EXP1 UAI2: (See signal list for UAI1)
HeatingSettings.Cor_ExpAi(6)	X,4	274		Connected signal on EXP1 UAI3: (See signal list for UAI1)
HeatingSettings.Cor_ExpAi(7)	X,4	275		Connected signal on EXP1 UAI4: (See signal list for UAI1)
HeatingSettings.Cor_ExpAi(12)	X,4	280		Connected signal on EXP2 UAI1: (See signal list for UAI1)
HeatingSettings.Cor_ExpAi(13)	X,4	281		Connected signal on EXP2 UAI2: (See signal list for UAI1)

Signal name	Type	Modbus address	Default value	Description
HeatingSettings.Cor_ExpAi(14)	X,4	282		Connected signal on EXP2 UAI3: (See signal list for UAI1)
HeatingSettings.Cor_ExpAi(15)	X,4	283		Connected signal on EXP2 UAI4: (See signal list for UAI1)
QDig.DI9	L,2	27		Value of UDI1
QDig.DI10	L,2	28		Value of UDI2
QDig.DI11	L,2	29		Value of UDI3
QDig.DI12	L,2	30		Value of UDI4
InputOutput.Exp1DigIn9	L,2	207		Value of EXP1 UDI1
InputOutput.Exp1DigIn10	L,2	208		Value of EXP1 UDI2
InputOutput.Exp1DigIn11	L,2	209		Value of EXP1 UDI3
InputOutput.Exp1DigIn12	L,2	210		Value of EXP1 UDI4
InputOutput.Exp2DigIn9	L,2	226		Value of EXP2 UDI1
InputOutput.Exp2DigIn10	L,2	227		Value of EXP2 UDI2
InputOutput.Exp2DigIn11	L,2	228		Value of EXP2 UDI3
InputOutput.Exp2DigIn12	L,2	229		Value of EXP2 UDI4
HeatingSettings.Cor_UDi1	X,4	67		Connected signal on UDI1: 0=Not active 1=HS1-PumpA 2=HS1-PumpB 3=HS2-PumpA 4=HS2-PumpB 5=HS3-PumpA 6=HS3-PumpB 7=CS1-PumpA 8=CS1-PumpB 9=HW1-Pump 10=HP1-Pump 11=Frequencer 12=Expansion vessel 13=External alarm 14=Boiler alarm 15=Effect limiter 16=Heating pulse 17=Energy pulse 18=CW1 pulse 19=CW2 pulse 20=Electric pulse 21=CS1 Start
HeatingSettings.Cor_UDi2	X,4	68		Connected signal on UDI2: (See signal list for UDI1)
HeatingSettings.Cor_UDi3	X,4	69		Connected signal on UDI3: (See signal list for UDI1)
HeatingSettings.Cor_UDi4	X,4	70		Connected signal on UDI4: (See signal list for UDI1)
HeatingSettings.Cor_ExpDi(8)	X,4	292		Connected signal on EXP1 DI1: (See signal list for UDI1)
HeatingSettings.Cor_ExpDi(9)	X,4	293		Connected signal on EXP1 DI2: (See signal list for UDI1)

Signal name	Type	Modbus address	Default value	Description
HeatingSettings.Cor_ExpDi(10)	X,4	294		Connected signal on EXP1 DI3: (See signal list for UDI1)
HeatingSettings.Cor_ExpDi(11)	X,4	295		Connected signal on EXP1 DI4: (See signal list for UDI1)
HeatingSettings.Cor_ExpDi(20)	X,4	304		Connected signal on EXP2 UDI1 (See signal list for UDI1)
HeatingSettings.Cor_ExpDi(21)	X,4	305		Connected signal on EXP2 UDI2 (See signal list for UDI1)
HeatingSettings.Cor_ExpDi(22)	X,4	306		Connected signal on EXP2 UDI3 (See signal list for UDI1)
HeatingSettings.Cor_ExpDi(23)	X,4	307		Connected signal on EXP2 UDI4 (See signal list for UDI1)

#### 4.4. Analogue outputs

Signal name	Type	Modbus address	Default value	Description
QanaOut.AQ1	R,4	71		Value of AO1
QanaOut.AQ2	R,4	72		Value of AO2
QanaOut.AQ3	R,4	73		Value of AO3
QanaOut.AQ4	R,4	74		Value of AO4
QanaOut.AQ5	R,4	75		Value of AO5
InputOutput.Exp1AnaOut1	R,4	308		Value of EXP1 AO1
InputOutput.Exp1AnaOut2	R,4	309		Value of EXP1 AO2
InputOutput.Exp1AnaOut3	R,4	310		Value of EXP1 AO3
InputOutput.Exp1AnaOut4	R,4	311		Value of EXP1 AO4
InputOutput.Exp1AnaOut5	R,4	312		Value of EXP1 AO5
InputOutput.Exp2AnaOut1	R,4	313		Value of EXP2 AO1
InputOutput.Exp2AnaOut2	R,4	314		Value of EXP2 AO2
InputOutput.Exp2AnaOut3	R,4	315		Value of EXP2 AO3
InputOutput.Exp2AnaOut4	R,4	316		Value of EXP2 AO4
InputOutput.Exp2AnaOut5	R,4	317		Value of EXP2 AO5
HeatingSettings.Cor_Ao1(0)	X,4	76		Connected signal on AO1: 0=Not active 1=HS1 Actuator 2=HS2 Actuator 3=HS3 Actuator 4=CS1 Actuator 5=HW1 Actuator 7=HW2 Actuator 7=Pressure Act. 8=Seq control



Signal name	Type	Modbus address	Default value	Description
HeatingSettings.Cor_Ao2	X,4	77		Connected signal on AO2: (See signal list for AO1)
HeatingSettings.Cor_Ao3	X,4	78		Connected signal on AO3: (See signal list for AIO)
HeatingSettings.Cor_Ao4	X,4	79		Connected signal on AO4: (See signal list for AO1)
HeatingSettings.Cor_Ao5	X,4	80		Connected signal on AO5: (See signal list for AO1)
HeatingSettings.Cor_ExpAo(0)	X,4	318		Connected signal on EXP1 AO1: (See signal list for AO1)
HeatingSettings.Cor_ExpAo(1)	X,4	319		Connected signal on EXP1 AO2: (See signal list for AO1)
HeatingSettings.Cor_ExpAo(2)	X,4	320		Connected signal on EXP1 AO3: (See signal list for AO1)
HeatingSettings.Cor_ExpAo(3)	X,4	321		Connected signal on EXP1 AO4: (See signal list for AO1)
HeatingSettings.Cor_ExpAo(4)	X,4	322		Connected signal on EXP1 AO5: (See signal list for AO1)
HeatingSettings.Cor_ExpAo(5)	X,4	323		Connected signal on EXP2 AO1: (See signal list for AO1)
HeatingSettings.Cor_ExpAo(6)	X,4	324		Connected signal on EXP2 AO2: (See signal list for AO1)
HeatingSettings.Cor_ExpAo(7)	X,4	325		Connected signal on EXP2 AO3: (See signal list for AO1)
HeatingSettings.Cor_ExpAo(8)	X,4	326		Connected signal on EXP2 AO4: (See signal list for AO1)
HeatingSettings.Cor_ExpAo(9)	X,4	327		Connected signal on EXP2 AO5: (See signal list for AO1)

## 4.5. Digital outputs

Signal name	Type	Modbus address	Default value	Description
QDig.Dq1	L,2	31		Value of DO1
QDig.Dq2	L,2	32		Value of DO2
QDig.Dq3	L,2	33		Value of DO3
QDig.Dq4	L,2	34		Value of DO4
QDig.Dq5	L,2	35		Value of DO5
QDig.Dq6	L,2	36		Value of DO6
QDig.Dq7	L,2	37		Value of DO7
HeatingSettings.Cor_Do1(0)	X,4	81		Connected signal on DO1: 0=Not active 1=HS1-PumpA 2=HS1-PumpB 3=HS2-PumpA 4=HS2-PumpB 5=HS3-PumpA 6=HS3-PumpB 7=CS1-PumpA 8=CS1-PumpB 9=HW1-Pump 10=HP1-Pump 11=Frequencer 12=Start1 Boiler 13=Start2 Boiler 14=Sum alarm 15=A-sum alarm 16=B-sum alarm 17=Timer1 18=Timer2 19=Timer3 20=Timer4 21=Timer5 22=Inc HS1-Act. 23=Dec HS1-Act. 24=Inc HS2-Act. 25=Dec HS2-Act. 26=Inc HS3-Act. 27=Dec HS3-Act. 28=Inc CS1-Act. 29=Dec CS1-Act. 30=Inc HW1-Act. 31=Dec HW1-Act. 32=Inc HW2-Act. 33=Dec HW2-Act. 34=CS1 Bypass va 35=CS1 Cooling u
HeatingSettings.Cor_Do2	X,4	82		Connected signal on DO2: (See signal list for DO1)
HeatingSettings.Cor_Do3	X,4	83		Connected signal on DO3: (See signal list for DO1)
HeatingSettings.Cor_Do4	X,4	84		Connected signal on DO4: (See signal list for DO1)

Signal name	Type	Modbus address	Default value	Description
HeatingSettings.Cor_Do5	X,4	85		Connected signal on DO5: (See signal list for DO1)
HeatingSettings.Cor_Do6	X,4	86		Connected signal on DO6: (See signal list for DO1)
HeatingSettings.Cor_Do7	X,4	87		Connected signal on DO7: (See signal list for DO1)
InputOutput.Exp1DigOut1	L,2	211		Value of EXP1 DO1
InputOutput.Exp1DigOut2	L,2	212		Value of EXP1 DO2
InputOutput.Exp1DigOut3	L,2	213		Value of EXP1 DO3
InputOutput.Exp1DigOut4	L,2	214		Value of EXP1 DO4
InputOutput.Exp1DigOut5	L,2	215		Value of EXP1 DO5
InputOutput.Exp1DigOut6	L,2	216		Value of EXP1 DO6
InputOutput.Exp1DigOut7	L,2	217		Value of EXP1 DO7
InputOutput.Exp2DigOut1	L,2	230		Value of EXP2 DO1
InputOutput.Exp2DigOut2	L,2	231		Value of EXP2 DO2
InputOutput.Exp2DigOut3	L,2	232		Value of EXP2 DO3
InputOutput.Exp2DigOut4	L,2	233		Value of EXP2 DO4
InputOutput.Exp2DigOut5	L,2	234		Value of EXP2 DO5
InputOutput.Exp2DigOut6	L,2	235		Value of EXP2 DO6
InputOutput.Exp2DigOut7	L,2	236		Value of EXP2 DO7
HeatingSettings.Cor_ExpDo(0)	X,4	328		Connected signal on EXP1 DO1: (See signal list for DO1)
HeatingSettings.Cor_ExpDo(1)	X,4	329		Connected signal on EXP1 DO2: (See signal list for DO1)
HeatingSettings.Cor_ExpDo(2)	X,4	330		Connected signal on EXP1 DO3: (See signal list for DO1)
HeatingSettings.Cor_ExpDo(3)	X,4	331		Connected signal on EXP1 DO4: (See signal list for DO1)
HeatingSettings.Cor_ExpDo(4)	X,4	332		Connected signal on EXP1 DO5: (See signal list for DO1)
HeatingSettings.Cor_ExpDo(5)	X,4	333		Connected signal on EXP1 DO6: (See signal list for DO1)
HeatingSettings.Cor_ExpDo(6)	X,4	334		Connected signal on EXP1 DO7: (See signal list for DO1)
HeatingSettings.Cor_ExpDo(7)	X,4	335		Connected signal on EXP2 DO1: (See signal list for DO1)
HeatingSettings.Cor_ExpDo(8)	X,4	336		Connected signal on EXP2 DO2: (See signal list for DO1)
HeatingSettings.Cor_ExpDo(9)	X,4	337		Connected signal on EXP2 DO3: (See signal list for DO1)
HeatingSettings.Cor_ExpDo(10)	X,4	338		Connected signal on EXP2 DO4: (See signal list for DO1)
HeatingSettings.Cor_ExpDo(11)	X,4	339		Connected signal on EXP2 DO5: (See signal list for DO1)
HeatingSettings.Cor_ExpDo(12)	X,4	340		Connected signal on EXP2 DO6: (See signal list for DO1)

Signal name	Type	Modbus address	Default value	Description
HeatingSettings.Cor_ExpDo(13)	X,4	341		Connected signal on EXP2 DO7: (See signal list for DO1)

# Chapter 5 Time Settings

## 5.1. HS1 Night Setback and Comfort Time

Signal name	Type	Modbus address	Default value	Description
HeatingSettings.Cor_HS1NightSetbackOn	L,1	1	0	Night setback HS1 0=off, 1=on
HeatingSettings.Cor_HS1NightSetback	R,3	70	5°C	Number of room-degrees night setback HS1
TimeDp.Posts(0).T1	R,3	71	7	Start time per 1 Monday comfort time HS1 (HH.MM)
TimeDp.Posts(0).T2	R,3	72	16	Stop time per 1 Monday comfort time HS1
TimeDp.Posts(0).T3	R,3	73	0	Start time per 2 Monday comfort time HS1
TimeDp.Posts(0).T4	R,3	74	0	Stop time per 2 Monday comfort time HS1
TimeDp.Posts(1).T1	R,3	75	7	Start time per 1 Tuesday comfort time HS1
TimeDp.Posts(1).T2	R,3	76	16	Stop time per 1 Tuesday comfort time HS1
TimeDp.Posts(1).T3	R,3	77	0	Start time per 2 Tuesday comfort time HS1
TimeDp.Posts(1).T4	R,3	78	0	Stop time per 2 Tuesday comfort time HS1
TimeDp.Posts(2).T1	R,3	79	7	Start time per 1 Wedn. comfort time HS1
TimeDp.Posts(2).T2	R,3	80	16	Stop time per 1 Wedn. comfort time HS1
TimeDp.Posts(2).T3	R,3	81	0	Start time per 2 Wedn. comfort time HS1
TimeDp.Posts(2).T4	R,3	82	0	Stop time per 2 Wedn. comfort time HS1
TimeDp.Posts(3).T1	R,3	83	7	Start time per 1 Thursday comfort time HS1
TimeDp.Posts(3).T2	R,3	84	16	Stop time per 1 Thursday comfort time HS1
TimeDp.Posts(3).T3	R,3	85	0	Start time per 2 Thursday comfort time HS1
TimeDp.Posts(3).T4	R,3	86	0	Stop time per 2 Thursday comfort time HS1
TimeDp.Posts(4).T1	R,3	87	7	Start time per 1 Friday comfort time HS1
TimeDp.Posts(4).T2	R,3	88	16	Stop time per 1 Friday comfort time HS1
TimeDp.Posts(4).T3	R,3	89	0	Start time per 2 Friday comfort time HS1
TimeDp.Posts(4).T4	R,3	90	0	Stop time per 2 Friday comfort time HS1
TimeDp.Posts(5).T1	R,3	91	0	Start time per 1 Saturday comfort time HS1
TimeDp.Posts(5).T2	R,3	92	0	Stop time per 1 Saturday comfort time HS1
TimeDp.Posts(5).T3	R,3	93	0	Start time per 2 Saturday comfort time HS1
TimeDp.Posts(5).T4	R,3	94	0	Stop time per 2 Saturday comfort time HS1
TimeDp.Posts(6).T1	R,3	95	0	Start time per 1 Sunday comfort time HS1
TimeDp.Posts(6).T2	R,3	96	0	Stop time per 1 Sunday comfort time HS1
TimeDp.Posts(6).T3	R,3	97	0	Start time per 2 Sunday comfort time HS1
TimeDp.Posts(6).T4	R,3	98	0	Stop time per 2 Sunday comfort time HS1
TimeDp.Posts(7).T1	R,3	99	0	Start time per 1 Holiday comfort time HS1
TimeDp.Posts(7).T2	R,3	100	0	Stop time per 1 Holiday comfort time HS1
TimeDp.Posts(7).T3	R,3	101	0	Start time per 2 Holiday comfort time HS1

Signal name	Type	Modbus address	Default value	Description
TimeDp.Posts(7).T4	R,3	102	0	Stop time per 2 Holiday comfort time HS1

## 5.2. HS2 Night Setback and Comfort Time

Signal name	Type	Modbus address	Default value	Description
HeatingSettings.Cor_HS2NightSetbackOn	L,1	2	0	Night setback HS2 0=off, 1=on
HeatingSettings.Cor_HS2NightSetback	R,3	103	5°C	Number of room-degrees night setback HS2
TimeDp.Posts(8).T1	R,3	104	7	Start time per 1 Monday comfort time HS2 (HH.MM)
TimeDp.Posts(8).T2	R,3	105	16	Stop time per 1 Monday comfort time HS2
TimeDp.Posts(8).T3	R,3	106	0	Start time per 2 Monday comfort time HS2
TimeDp.Posts(8).T4	R,3	107	0	Stop time per 2 Monday comfort time HS2
TimeDp.Posts(9).T1	R,3	108	7	Start time per 1 Tuesday comfort time HS2
TimeDp.Posts(9).T2	R,3	109	16	Stop time per 1 Tuesday comfort time HS2
TimeDp.Posts(9).T3	R,3	110	0	Start time per 2 Tuesday comfort time HS2
TimeDp.Posts(9).T4	R,3	111	0	Stop time per 2 Tuesday comfort time HS2
TimeDp.Posts(10).T1	R,3	112	7	Start time per 1 Wedn. comfort time HS2
TimeDp.Posts(10).T2	R,3	113	16	Stop time per 1 Wedn. comfort time HS2
TimeDp.Posts(10).T3	R,3	114	0	Start time per 2 Wedn. comfort time HS2
TimeDp.Posts(10).T4	R,3	115	0	Stop time per 2 Wedn. comfort time HS2
TimeDp.Posts(11).T1	R,3	116	7	Start time per 1 Thursday comfort time HS2
TimeDp.Posts(11).T2	R,3	117	16	Stop time per 1 Thursday comfort time HS2
TimeDp.Posts(11).T3	R,3	118	0	Start time per 2 Thursday comfort time HS2
TimeDp.Posts(11).T4	R,3	119	0	Stop time per 2 Thursday comfort time HS2
TimeDp.Posts(12).T1	R,3	120	7	Start time per 1 Friday comfort time HS2
TimeDp.Posts(12).T2	R,3	121	16	Stop time per 1 Friday comfort time HS2
TimeDp.Posts(12).T3	R,3	122	0	Start time per 2 Friday comfort time HS2
TimeDp.Posts(12).T4	R,3	123	0	Stop time per 2 Friday comfort time HS2
TimeDp.Posts(13).T1	R,3	124	0	Start time per 1 Saturday comfort time HS2
TimeDp.Posts(13).T2	R,3	125	0	Stop time per 1 Saturday comfort time HS2
TimeDp.Posts(13).T3	R,3	126	0	Start time per 2 Saturday comfort time HS2
TimeDp.Posts(13).T4	R,3	127	0	Stop time per 2 Saturday comfort time HS2
TimeDp.Posts(14).T1	R,3	128	0	Start time per 1 Sunday comfort time HS2
TimeDp.Posts(14).T2	R,3	129	0	Stop time per 1 Sunday comfort time HS2
TimeDp.Posts(14).T3	R,3	130	0	Start time per 2 Sunday comfort time HS2
TimeDp.Posts(14).T4	R,3	131	0	Stop time per 2 Sunday comfort time HS2
TimeDp.Posts(15).T1	R,3	132	0	Start time per 1 Holiday comfort time HS2
TimeDp.Posts(15).T2	R,3	133	0	Stop time per 1 Holiday comfort time HS2
TimeDp.Posts(15).T3	R,3	134	0	Start time per 2 Holiday comfort time HS2

Signal name	Type	Modbus address	Default value	Description
TimeDp.Posts(15).T4	R,3	135	0	Stop time per 2 Holiday comfort time HS2

### 5.3. HS3 Night Setback and Comfort Time

Signal name	Type	Modbus address	Default value	Description
HeatingSettings.Cor_HS3NightSetbackOn	L,1	3	0	Night setback HS3 0=off, 1=on
HeatingSettings.Cor_HS3NightSetback	R,3	136	5°C	Number of room-degrees night setback HS3
TimeDp.Posts(16).T1	R,3	137	7	Start time per 1 Monday comfort time HS3 (HH.MM)
TimeDp.Posts(16).T2	R,3	138	16	Stop time per 1 Monday comfort time HS3
TimeDp.Posts(16).T3	R,3	139	0	Start time per 2 Monday comfort time HS3
TimeDp.Posts(16).T4	R,3	140	0	Stop time per 2 Monday comfort time HS3
TimeDp.Posts(17).T1	R,3	141	7	Start time per 1 Tuesday comfort time HS3
TimeDp.Posts(17).T2	R,3	142	16	Stop time per 1 Tuesday comfort time HS3
TimeDp.Posts(17).T3	R,3	143	0	Start time per 2 Tuesday comfort time HS3
TimeDp.Posts(17).T4	R,3	144	0	Stop time per 2 Tuesday comfort time HS3
TimeDp.Posts(18).T1	R,3	145	7	Start time per 1 Wedn. comfort time HS3
TimeDp.Posts(18).T2	R,3	146	16	Stop time per 1 Wedn. comfort time HS3
TimeDp.Posts(18).T3	R,3	147	0	Start time per 2 Wedn. comfort time HS3
TimeDp.Posts(18).T4	R,3	148	0	Stop time per 2 Wedn. comfort time HS3
TimeDp.Posts(19).T1	R,3	149	7	Start time per 1 Thursday comfort time HS3
TimeDp.Posts(19).T2	R,3	150	16	Stop time per 1 Thursday comfort time HS3
TimeDp.Posts(19).T3	R,3	151	0	Start time per 2 Thursday comfort time HS3
TimeDp.Posts(19).T4	R,3	152	0	Stop time per 2 Thursday comfort time HS3
TimeDp.Posts(20).T1	R,3	153	7	Start time per 1 Friday comfort time HS3
TimeDp.Posts(20).T2	R,3	154	16	Stop time per 1 Friday comfort time HS3
TimeDp.Posts(20).T3	R,3	155	0	Start time per 2 Friday comfort time HS3
TimeDp.Posts(20).T4	R,3	156	0	Stop time per 2 Friday comfort time HS3
TimeDp.Posts(21).T1	R,3	157	0	Start time per 1 Saturday comfort time HS3
TimeDp.Posts(21).T2	R,3	158	0	Stop time per 1 Saturday comfort time HS3
TimeDp.Posts(21).T3	R,3	159	0	Start time per 2 Saturday comfort time HS3
TimeDp.Posts(21).T4	R,3	160	0	Stop time per 2 Saturday comfort time HS3
TimeDp.Posts(22).T1	R,3	161	0	Start time per 1 Sunday comfort time HS3
TimeDp.Posts(22).T2	R,3	162	0	Stop time per 1 Sunday comfort time HS3
TimeDp.Posts(22).T3	R,3	163	0	Start time per 2 Sunday comfort time HS3
TimeDp.Posts(22).T4	R,3	164	0	Stop time per 2 Sunday comfort time HS3
TimeDp.Posts(23).T1	R,3	165	0	Start time per 1 Holiday comfort time HS3
TimeDp.Posts(23).T2	R,3	166	0	Stop time per 1 Holiday comfort time HS3
TimeDp.Posts(23).T3	R,3	167	0	Start time per 2 Holiday comfort time HS3

Signal name	Type	Modbus address	Default value	Description
TimeDp.Posts(23).T4	R,3	168	0	Stop time per 2 Holiday comfort time HS3

## 5.4. HWC1 Night Setback and Comfort Time

Signal name	Type	Modbus address	Default value	Description
HeatingSettings.Cor_HW1NightSetbackOn	L,1	4	0	Night setback HW1 0=off, 1=on
HeatingSettings.Cor_HW1NightSetback	R,3	169	5°C	Number of degrees night setback HW1
HeatingSettings.Cor_HW1PumpStop	L,1	5	0	Activate pump stop HW1 when night set-back on 0=Pump stop off, 1=pump stop on
TimeDp.Posts(24).T1	R,3	170	7	Start time per 1 Monday comfort time HS3 (HH.MM)
TimeDp.Posts(24).T2	R,3	171	16	Stop time per 1 Monday comfort time HW1
TimeDp.Posts(24).T3	R,3	172	0	Start time per 2 Monday comfort time HW1
TimeDp.Posts(24).T4	R,3	173	0	Stop time per 2 Monday comfort time HW1
TimeDp.Posts(25).T1	R,3	174	7	Start time per 1 Tuesday comfort time HW1
TimeDp.Posts(25).T2	R,3	175	16	Stop time per 1 Tuesday comfort time HW1
TimeDp.Posts(25).T3	R,3	176	0	Start time per 2 Tuesday comfort time HW1
TimeDp.Posts(25).T4	R,3	177	0	Stop time per 2 Tuesday comfort time HW1
TimeDp.Posts(26).T1	R,3	178	7	Start time per 1 Wedn. comfort time HW1
TimeDp.Posts(26).T2	R,3	179	16	Stop time per 1 Wedn. comfort time HW1
TimeDp.Posts(26).T3	R,3	180	0	Start time per 2 Wedn. comfort time HW1
TimeDp.Posts(26).T4	R,3	181	0	Stop time per 2 Wedn. comfort time HW1
TimeDp.Posts(27).T1	R,3	182	7	Start time per 1 Thursd. comfort time HW1
TimeDp.Posts(27).T2	R,3	183	16	Stop time per 1 Thursd. comfort time HW1
TimeDp.Posts(27).T3	R,3	184	0	Start time per 2 Thursd. comfort time HW1
TimeDp.Posts(27).T4	R,3	185	0	Stop time per 2 Thursd. comfort time HW1
TimeDp.Posts(28).T1	R,3	186	7	Start time per 1 Friday comfort time HW1
TimeDp.Posts(28).T2	R,3	187	16	Stop time per 1 Friday comfort time HW1
TimeDp.Posts(28).T3	R,3	188	0	Start time per 2 Friday comfort time HW1
TimeDp.Posts(28).T4	R,3	189	0	Stop time per 2 Friday comfort time HW1
TimeDp.Posts(29).T1	R,3	190	0	Start time per 1 Saturd. comfort time HW1
TimeDp.Posts(29).T2	R,3	191	0	Stop time per 1 Saturd. comfort time HW1
TimeDp.Posts(29).T3	R,3	192	0	Start time per 2 Saturd. comfort time HW1
TimeDp.Posts(29).T4	R,3	193	0	Stop time per 2 Saturd. comfort time HW1
TimeDp.Posts(30).T1	R,3	194	0	Start time per 1 Sunday comfort time HW1
TimeDp.Posts(30).T2	R,3	195	0	Stop time per 1 Sunday comfort time HW1
TimeDp.Posts(30).T3	R,3	196	0	Start time per 2 Sunday comfort time HW1
TimeDp.Posts(30).T4	R,3	197	0	Stop time per 2 Sunday comfort time HW1
TimeDp.Posts(31).T1	R,3	198	0	Start time per 1 Holiday comfort time HW1
TimeDp.Posts(31).T2	R,3	199	0	Stop time per 1 Holiday comfort time HW1



Signal name	Type	Modbus address	Default value	Description
TimeDp.Posts(31).T3	R,3	200	0	Start time per 2 Holiday comfort time HW1
TimeDp.Posts(31).T4	R,3	201	0	Stop time per 2 Holiday comfort time HW1

## 5.5. HWC2 Night Setback and Comfort Time

Signal name	Type	Modbus address	Default value	Description
HeatingSettings.Cor_HW2NightSetbackOn	L,1	6	0	Night setback HW2 0=off, 1=on
HeatingSettings.Cor_HW2NightSetback	R,3	202	5°C	Number of degrees night setback HW2
TimeDp.Posts(32).T1	R,3	203	7	Start time per 1 Monday comfort time HS3 (HH.MM)
TimeDp.Posts(32).T2	R,3	204	16	Stop time per 1 Monday comfort time HW2
TimeDp.Posts(32).T3	R,3	205	0	Start time per 2 Monday comfort time HW2
TimeDp.Posts(32).T4	R,3	206	0	Stop time per 2 Monday comfort time HW2
TimeDp.Posts(33).T1	R,3	207	7	Start time per 1 Tuesday comfort time HW2
TimeDp.Posts(33).T2	R,3	208	16	Stop time per 1 Tuesday comfort time HW2
TimeDp.Posts(33).T3	R,3	209	0	Start time per 2 Tuesday comfort time HW2
TimeDp.Posts(33).T4	R,3	210	0	Stop time per 2 Tuesday comfort time HW2
TimeDp.Posts(34).T1	R,3	211	7	Start time per 1 Wedn. comfort time HW2
TimeDp.Posts(34).T2	R,3	212	16	Stop time per 1 Wedn. comfort time HW2
TimeDp.Posts(34).T3	R,3	213	0	Start time per 2 Wedn. comfort time HW2
TimeDp.Posts(34).T4	R,3	214	0	Stop time per 2 Wedn. comfort time HW2
TimeDp.Posts(35).T1	R,3	215	7	Start time per 1 Thursd. comfort time HW2
TimeDp.Posts(35).T2	R,3	216	16	Stop time per 1 Thursd. comfort time HW2
TimeDp.Posts(35).T3	R,3	217	0	Start time per 2 Thursd. comfort time HW2
TimeDp.Posts(35).T4	R,3	218	0	Stop time per 2 Thursd. comfort time HW2
TimeDp.Posts(36).T1	R,3	219	7	Start time per 1 Friday comfort time HW2
TimeDp.Posts(36).T2	R,3	220	16	Stop time per 1 Friday comfort time HW2
TimeDp.Posts(36).T3	R,3	221	0	Start time per 2 Friday comfort time HW2
TimeDp.Posts(36).T4	R,3	222	0	Stop time per 2 Friday comfort time HW2
TimeDp.Posts(37).T1	R,3	223	0	Start time per 1 Saturd. comfort time HW2
TimeDp.Posts(37).T2	R,3	224	0	Stop time per 1 Saturd. comfort time HW2
TimeDp.Posts(37).T3	R,3	225	0	Start time per 2 Saturd. comfort time HW2
TimeDp.Posts(37).T4	R,3	226	0	Stop time per 2 Saturd. comfort time HW2
TimeDp.Posts(38).T1	R,3	227	0	Start time per 1 Sunday comfort time HW2
TimeDp.Posts(38).T2	R,3	228	0	Stop time per 1 Sunday comfort time HW2
TimeDp.Posts(38).T3	R,3	229	0	Start time per 2 Sunday comfort time HW2
TimeDp.Posts(38).T4	R,3	230	0	Stop time per 2 Sunday comfort time HW2
TimeDp.Posts(39).T1	R,3	231	0	Start time per 1 Holiday comfort time HW2
TimeDp.Posts(39).T2	R,3	232	0	Stop time per 1 Holiday comfort time HW2
TimeDp.Posts(39).T3	R,3	233	0	Start time per 2 Holiday comfort time HW2

Signal name	Type	Modbus address	Default value	Description
TimeDp.Posts(39).T4	R,3	234	0	Stop time per 2 Holiday comfort time HW2

## 5.6. CS1 Night Setback and Comfort Time

Signal name	Type	Modbus address	Default value	Description
HeatingSettings.Cor_CS1NightSetbackOn	L,1	7	0	Night setback CS1 0=off, 1=on
HeatingSettings.Cor_CS1NightSetback	R,3	556	5°C	Number of room-degrees night setback CS1
TimeDp.Posts(24).T1	R,3	557	7	Start time per 1 Monday comfort time CS1 (HH.MM)
TimeDp.Posts(24).T2	R,3	558	16	Stop time per 1 Monday comfort time CS1
TimeDp.Posts(24).T3	R,3	559	0	Start time per 2 Monday comfort time CS1
TimeDp.Posts(24).T4	R,3	560	0	Stop time per 2 Monday comfort time CS1
TimeDp.Posts(25).T1	R,3	561	7	Start time per 1 Tuesday comfort time CS1
TimeDp.Posts(25).T2	R,3	562	16	Stop time per 1 Tuesday comfort time CS1
TimeDp.Posts(25).T3	R,3	563	0	Start time per 2 Tuesday comfort time CS1
TimeDp.Posts(25).T4	R,3	564	0	Stop time per 2 Tuesday comfort time CS1
TimeDp.Posts(26).T1	R,3	565	7	Start time per 1 Wedn. comfort time CS1
TimeDp.Posts(26).T2	R,3	566	16	Stop time per 1 Wedn. comfort time CS1
TimeDp.Posts(26).T3	R,3	567	0	Start time per 2 Wedn. comfort time CS1
TimeDp.Posts(26).T4	R,3	568	0	Stop time per 2 Wedn. comfort time CS1
TimeDp.Posts(27).T1	R,3	569	7	Start time per 1 Thursday comfort time CS1
TimeDp.Posts(27).T2	R,3	570	16	Stop time per 1 Thursday comfort time CS1
TimeDp.Posts(27).T3	R,3	571	0	Start time per 2 Thursday comfort time CS1
TimeDp.Posts(27).T4	R,3	572	0	Stop time per 2 Thursday comfort time CS1
TimeDp.Posts(28).T1	R,3	573	7	Start time per 1 Friday comfort time CS1
TimeDp.Posts(28).T2	R,3	574	16	Stop time per 1 Friday comfort time CS1
TimeDp.Posts(28).T3	R,3	575	0	Start time per 2 Friday comfort time CS1
TimeDp.Posts(28).T4	R,3	576	0	Stop time per 2 Friday comfort time CS1
TimeDp.Posts(29).T1	R,3	577	0	Start time per 1 Saturday comfort time CS1
TimeDp.Posts(29).T2	R,3	578	0	Stop time per 1 Saturday comfort time CS1
TimeDp.Posts(29).T3	R,3	579	0,	Start time per 2 Saturday comfort time CS1
TimeDp.Posts(29).T4	R,3	580	0	Stop time per 2 Saturday comfort time CS1
TimeDp.Posts(30).T1	R,3	581	0	Start time per 1 Sunday comfort time CS1
TimeDp.Posts(30).T2	R,3	582	0	Stop time per 1 Sunday comfort time CS1
TimeDp.Posts(30).T3	R,3	583	0	Start time per 2 Sunday comfort time CS1
TimeDp.Posts(30).T4	R,3	584	0	Stop time per 2 Sunday comfort time CS1
TimeDp.Posts(31).T1	R,3	585	0	Start time per 1 Holiday comfort time CS1
TimeDp.Posts(31).T2	R,3	586	0	Stop time per 1 Holiday comfort time CS1
TimeDp.Posts(31).T3	R,3	587	0	Start time per 2 Holiday comfort time CS1
TimeDp.Posts(31).T4	R,3	588	0	Stop time per 2 Holiday comfort time CS1

## 5.7. Timer output 1

Signal name	Type	Modbus address	Default value	Description
TimeDp.Posts(40).T1	R,3	235	7	Start time period 1 Monday timer output 1 (HH.MM)
TimeDp.Posts(40).T2	R,3	236	16	Stop time period 1 Monday timer output 1
TimeDp.Posts(40).T3	R,3	237	0	Start time period 2 Monday timer output 1
TimeDp.Posts(40).T4	R,3	238	0	Stop time period 2 Monday timer output 1
TimeDp.Posts(41).T1	R,3	239	7	Start time period 1 Tuesday timer output 1
TimeDp.Posts(41).T2	R,3	240	16	Stop time period 1 Tuesday timer output 1
TimeDp.Posts(41).T3	R,3	241	0	Start time period 2 Tuesday timer output 1
TimeDp.Posts(41).T4	R,3	242	0	Stop time period 2 Tuesday timer output 1
TimeDp.Posts(42).T1	R,3	243	7	Start time period 1 Wednesd.timer output 1
TimeDp.Posts(42).T2	R,3	244	16	Stop time period 1 Wedn. timer output 1
TimeDp.Posts(42).T3	R,3	245	0	Start time period 2 Wedn. timer output 1
TimeDp.Posts(42).T4	R,3	246	0	Stop time period 2 Wedn. timer output 1
TimeDp.Posts(43).T1	R,3	247	7	Start time period 1 Thursday timer output 1
TimeDp.Posts(43).T2	R,3	248	16	Stop time period 1 Thursday timer output 1
TimeDp.Posts(43).T3	R,3	249	0	Start time period 2 Thursday timer output 1
TimeDp.Posts(43).T4	R,3	250	0	Stop time period 2 Thursday timer output 1
TimeDp.Posts(44).T1	R,3	251	7	Start time period 1 Friday timer output 1
TimeDp.Posts(44).T2	R,3	252	16	Stop time period 1 Friday timer output 1
TimeDp.Posts(44).T3	R,3	253	0	Start time period 2 Friday timer output 1
TimeDp.Posts(44).T4	R,3	254	0	Stop time period 2 Friday timer output 1
TimeDp.Posts(45).T1	R,3	255	0	Start time period 1 Saturday timer output 1
TimeDp.Posts(45).T2	R,3	256	0	Stop time period 1 Saturday timer output 1
TimeDp.Posts(45).T3	R,3	257	0	Start time period 2 Saturday timer output 1
TimeDp.Posts(45).T4	R,3	258	0	Stop time period 2 Saturday timer output 1
TimeDp.Posts(46).T1	R,3	259	0	Start time period 1 Sunday timer output 1
TimeDp.Posts(46).T2	R,3	260	0	Stop time period 1 Sunday timer output 1
TimeDp.Posts(46).T3	R,3	261	0	Start time period 2 Sunday timer output 1
TimeDp.Posts(46).T4	R,3	262	0	Stop time period 2 Sunday timer output 1
TimeDp.Posts(47).T1	R,3	263	0	Start time period 1 Holiday timer output 1
TimeDp.Posts(47).T2	R,3	264	0	Stop time period 1 Holiday timer output 1
TimeDp.Posts(47).T3	R,3	265	0	Start time period 2 Holiday timer output 1
TimeDp.Posts(47).T4	R,3	266	0	Stop time period 2 Holiday timer output 1

## 5.8. Timer output 2

Signal name	Type	Modbus address	Default value	Description
TimeDp.Posts(48).T1	R,3	267	7	Start time period 1 Monday timer output 2 (HH.MM)
TimeDp.Posts(48).T2	R,3	268	16	Stop time period 1 Monday timer output 2
TimeDp.Posts(48).T3	R,3	269	0	Start time period 2 Monday timer output 2
TimeDp.Posts(48).T4	R,3	270	0	Stop time period 2 Monday timer output 2
TimeDp.Posts(49).T1	R,3	271	7	Start time period 1 Tuesday timer output 2
TimeDp.Posts(49).T2	R,3	272	16	Stop time period 1 Tuesday timer output 2
TimeDp.Posts(49).T3	R,3	273	0	Start time period 2 Tuesday timer output 2
TimeDp.Posts(49).T4	R,3	274	0	Stop time period 2 Tuesday timer output 2
TimeDp.Posts(50).T1	R,3	275	7	Start time period 1 Wedn. timer output 2
TimeDp.Posts(50).T2	R,3	276	16	Stop time period 1 Wedn. timer output 2
TimeDp.Posts(50).T3	R,3	277	0	Start time period 2 Wedn. timer output 2
TimeDp.Posts(50).T4	R,3	278	0	Stop time period 2 Wedn. timer output 2
TimeDp.Posts(51).T1	R,3	279	7	Start time period 1 Thursday timer output 2
TimeDp.Posts(51).T2	R,3	280	16	Stop time period 1 Thursday timer output 2
TimeDp.Posts(51).T3	R,3	281	0	Start time period 2 Thursday timer output 2
TimeDp.Posts(51).T4	R,3	282	0	Stop time period 2 Thursday timer output 2
TimeDp.Posts(52).T1	R,3	283	7	Start time period 1 Friday timer output 2
TimeDp.Posts(52).T2	R,3	284	16	Stop time period 1 Friday timer output 2
TimeDp.Posts(52).T3	R,3	285	0	Start time period 2 Friday timer output 2
TimeDp.Posts(52).T4	R,3	286	0	Stop time period 2 Friday timer output 2
TimeDp.Posts(53).T1	R,3	287	0	Start time period 1 Saturday timer output 2
TimeDp.Posts(53).T2	R,3	288	0	Stop time period 1 Saturday timer output 2
TimeDp.Posts(53).T3	R,3	289	0	Start time period 2 Saturday timer output 2
TimeDp.Posts(53).T4	R,3	290	0	Stop time period 2 Saturday timer output 2
TimeDp.Posts(54).T1	R,3	291	0	Start time period 1 Sunday timer output 2
TimeDp.Posts(54).T2	R,3	292	0	Stop time period 1 Sunday timer output 2
TimeDp.Posts(54).T3	R,3	293	0	Start time period 2 Sunday timer output 2
TimeDp.Posts(54).T4	R,3	294	0	Stop time period 2 Sunday timer output 2
TimeDp.Posts(55).T1	R,3	295	0	Start time period 1 Holiday timer output 2
TimeDp.Posts(55).T2	R,3	296	0	Stop time period 1 Holiday timer output 2
TimeDp.Posts(55).T3	R,3	297	0	Start time period 2 Holiday timer output 2
TimeDp.Posts(55).T4	R,3	298	0	Stop time period 2 Holiday timer output 2

## 5.9. Timer output 3

Signal name	Type	Modbus address	Default value	Description
TimeDp.Posts(56).T1	R,3	299	7	Start time period 1 Monday timer output 3 (HH.MM)
TimeDp.Posts(56).T2	R,3	300	16	Stop time period 1 Monday timer output 3
TimeDp.Posts(56).T3	R,3	301	0	Start time period 2 Monday timer output 3
TimeDp.Posts(56).T4	R,3	302	0	Stop time period 2 Monday timer output 3
TimeDp.Posts(57).T1	R,3	303	7	Start time period 1 Tuesday timer output 3
TimeDp.Posts(57).T2	R,3	304	16	Stop time period 1 Tuesday timer output 3
TimeDp.Posts(57).T3	R,3	305	0	Start time period 2 Tuesday timer output 3
TimeDp.Posts(57).T4	R,3	306	0	Stop time period 2 Tuesday timer output 3
TimeDp.Posts(58).T1	R,3	307	7	Start time period 1 Wedn. timer output 3
TimeDp.Posts(58).T2	R,3	308	16	Stop time period 1 Wedn. timer output 3
TimeDp.Posts(58).T3	R,3	309	0	Start time period 2 Wedn. timer output 3
TimeDp.Posts(58).T4	R,3	310	0	Stop time period 2 Wedn. timer output 3
TimeDp.Posts(59).T1	R,3	311	7	Start time period 1 Thursday timer output 3
TimeDp.Posts(59).T2	R,3	312	16	Stop time period 1 Thursday timer output 3
TimeDp.Posts(59).T3	R,3	313	0	Start time period 2 Thursday timer output 3
TimeDp.Posts(59).T4	R,3	314	0	Stop time period 2 Thursday timer output 3
TimeDp.Posts(60).T1	R,3	315	7	Start time period 1 Friday timer output 3
TimeDp.Posts(60).T2	R,3	316	16	Stop time period 1 Friday timer output 3
TimeDp.Posts(60).T3	R,3	317	0	Start time period 2 Friday timer output 3
TimeDp.Posts(60).T4	R,3	318	0	Stop time period 2 Friday timer output 3
TimeDp.Posts(61).T1	R,3	319	0	Start time period 1 Saturday timer output 3
TimeDp.Posts(61).T2	R,3	320	0	Stop time period 1 Saturday timer output 3
TimeDp.Posts(61).T3	R,3	321	0	Start time period 2 Saturday timer output 3
TimeDp.Posts(61).T4	R,3	322	0	Stop time period 2 Saturday timer output 3
TimeDp.Posts(62).T1	R,3	323	0	Start time period 1 Sunday timer output 3
TimeDp.Posts(62).T2	R,3	324	0	Stop time period 1 Sunday timer output 3
TimeDp.Posts(62).T3	R,3	325	0	Start time period 2 Sunday timer output 3
TimeDp.Posts(62).T4	R,3	326	0	Stop time period 2 Sunday timer output 3
TimeDp.Posts(63).T1	R,3	327	0	Start time period 1 Holiday timer output 3
TimeDp.Posts(63).T2	R,3	328	0	Stop time period 1 Holiday timer output 3
TimeDp.Posts(63).T3	R,3	329	0	Start time period 2 Holiday timer output 3
TimeDp.Posts(63).T4	R,3	330	0	Stop time period 2 Holiday timer output 3

## 5.10. Timer output 4

Signal name	Type	Modbus address	Default value	Description
TimeDp.Posts(64).T1	R,3	331	7	Start time period 1 Monday timer output 4 (HH.MM)
TimeDp.Posts(64).T2	R,3	332	16	Stop time period 1 Monday timer output 4
TimeDp.Posts(64).T3	R,3	333	0	Start time period 2 Monday timer output 4
TimeDp.Posts(64).T4	R,3	334	0	Stop time period 2 Monday timer output 4
TimeDp.Posts(65).T1	R,3	335	7	Start time period 1 Tuesday timer output 4
TimeDp.Posts(65).T2	R,3	336	16	Stop time period 1 Tuesday timer output 4
TimeDp.Posts(65).T3	R,3	337	0	Start time period 2 Tuesday timer output 4
TimeDp.Posts(65).T4	R,3	338	0	Stop time period 2 Tuesday timer output 4
TimeDp.Posts(66).T1	R,3	339	7	Start time period 1 Wedn. timer output 4
TimeDp.Posts(66).T2	R,3	340	16	Stop time period 1 Wedn. timer output 4
TimeDp.Posts(66).T3	R,3	341	0	Start time period 2 Wedn. timer output 4
TimeDp.Posts(66).T4	R,3	342	0	Stop time period 2 Wedn. timer output 4
TimeDp.Posts(67).T1	R,3	343	7	Start time period 1 Thursday timer output 4
TimeDp.Posts(67).T2	R,3	344	16	Stop time period 1 Thursday timer output 4
TimeDp.Posts(67).T3	R,3	345	0	Start time period 2 Thursday timer output 4
TimeDp.Posts(67).T4	R,3	346	0	Stop time period 2 Thursday timer output 4
TimeDp.Posts(68).T1	R,3	347	7	Start time period 1 Friday timer output 4
TimeDp.Posts(68).T2	R,3	348	16	Stop time period 1 Friday timer output 4
TimeDp.Posts(68).T3	R,3	349	0	Start time period 2 Friday timer output 4
TimeDp.Posts(68).T4	R,3	350	0	Stop time period 2 Friday timer output 4
TimeDp.Posts(69).T1	R,3	351	0	Start time period 1 Saturday timer output 4
TimeDp.Posts(69).T2	R,3	352	0	Stop time period 1 Saturday timer output 4
TimeDp.Posts(69).T3	R,3	353	0	Start time period 2 Saturday timer output 4
TimeDp.Posts(69).T4	R,3	354	0	Stop time period 2 Saturday timer output 4
TimeDp.Posts(70).T1	R,3	355	0	Start time period 1 Sunday timer output 4
TimeDp.Posts(70).T2	R,3	356	0	Stop time period 1 Sunday timer output 4
TimeDp.Posts(70).T3	R,3	357	0	Start time period 2 Sunday timer output 4
TimeDp.Posts(70).T4	R,3	358	0	Stop time period 2 Sunday timer output 4
TimeDp.Posts(71).T1	R,3	359	0	Start time period 1 Holiday timer output 4
TimeDp.Posts(71).T2	R,3	360	0	Stop time period 1 Holiday timer output 4
TimeDp.Posts(71).T3	R,3	361	0	Start time period 2 Holiday timer output 4
TimeDp.Posts(71).T4	R,3	362	0	Stop time period 2 Holiday timer output 4

## 5.11. Timer output 5

Signal name	Type	Modbus address	Default value	Description
TimeDp.Posts(72).T1	R,3	363	7	Start time period 1 Monday timer output 5 (HH.MM)
TimeDp.Posts(72).T2	R,3	364	16	Stop time period 1 Monday timer output 5
TimeDp.Posts(72).T3	R,3	365	0	Start time period 2 Monday timer output 5
TimeDp.Posts(72).T4	R,3	366	0	Stop time period 2 Monday timer output 5
TimeDp.Posts(73).T1	R,3	367	7	Start time period 1 Tuesday timer output 5
TimeDp.Posts(73).T2	R,3	368	16	Stop time period 1 Tuesday timer output 5
TimeDp.Posts(73).T3	R,3	369	0	Start time period 2 Tuesday timer output 5
TimeDp.Posts(73).T4	R,3	370	0	Stop time period 2 Tuesday timer output 5
TimeDp.Posts(74).T1	R,3	371	7	Start time period 1 Wedn. timer output 5
TimeDp.Posts(74).T2	R,3	372	16	Stop time period 1 Wedn. timer output 5
TimeDp.Posts(74).T3	R,3	373	0	Start time period 2 Wedn. timer output 5
TimeDp.Posts(74).T4	R,3	374	0	Stop time period 2 Wedn. timer output 5
TimeDp.Posts(75).T1	R,3	375	7	Start time period 1 Thursday timer output 5
TimeDp.Posts(75).T2	R,3	376	16	Stop time period 1 Thursday timer output 5
TimeDp.Posts(75).T3	R,3	377	0	Start time period 2 Thursday timer output 5
TimeDp.Posts(75).T4	R,3	378	0	Stop time period 2 Thursday timer output 5
TimeDp.Posts(76).T1	R,3	379	7	Start time period 1 Friday timer output 5
TimeDp.Posts(76).T2	R,3	380	16	Stop time period 1 Friday timer output 5
TimeDp.Posts(76).T3	R,3	381	0	Start time period 2 Friday timer output 5
TimeDp.Posts(76).T4	R,3	382	0	Stop time period 2 Friday timer output 5
TimeDp.Posts(77).T1	R,3	383	0	Start time period 1 Saturday timer output 5
TimeDp.Posts(77).T2	R,3	384	0	Stop time period 1 Saturday timer output 5
TimeDp.Posts(77).T3	R,3	385	0	Start time period 2 Saturday timer output 5
TimeDp.Posts(77).T4	R,3	386	0	Stop time period 2 Saturday timer output 5
TimeDp.Posts(78).T1	R,3	387	0	Start time period 1 Sunday timer output 5
TimeDp.Posts(78).T2	R,3	388	0	Stop time period 1 Sunday timer output 5
TimeDp.Posts(78).T3	R,3	389	0	Start time period 2 Sunday timer output 5
TimeDp.Posts(78).T4	R,3	390	0	Stop time period 2 Sunday timer output 5
TimeDp.Posts(79).T1	R,3	391	0	Start time period 1 Holiday timer output 5
TimeDp.Posts(79).T2	R,3	392	0	Stop time period 1 Holiday timer output 5
TimeDp.Posts(79).T3	R,3	393	0	Start time period 2 Holiday timer output 5
TimeDp.Posts(79).T4	R,3	394	0	Stop time period 2 Holiday timer output 5

## 5.12. Holidays

Signal name	Type	Modbus address	Default value	Description
TimeHp.Posts(0).FromDate	R,3	395	01.01	Start date holiday period 1 (MM.DD)
TimeHp.Posts(0).ToDate	R,3	396	01.01	End date holiday period 1 (MM.DD)
TimeHp.Posts(1).FromDate	R,3	397	01.01	Start date holiday period 2 (MM.DD)
TimeHp.Posts(1).ToDate	R,3	398	01.01	End date holiday period 2 (MM.DD)
TimeHp.Posts(2).FromDate	R,3	399	01.01	Start date holiday period 3 (MM.DD)
TimeHp.Posts(2).ToDate	R,3	400	01.01	End date holiday period 3 (MM.DD)
TimeHp.Posts(3).FromDate	R,3	401	01.01	Start date holiday period 4 (MM.DD)
TimeHp.Posts(3).ToDate	R,3	402	01.01	End date holiday period 4 (MM.DD)
TimeHp.Posts(4).FromDate	R,3	403	01.01	Start date holiday period 5 (MM.DD)
TimeHp.Posts(4).ToDate	R,3	404	01.01	End date holiday period 5 (MM.DD)
TimeHp.Posts(5).FromDate	R,3	405	01.01	Start date holiday period 6 (MM.DD)
TimeHp.Posts(5).ToDate	R,3	406	01.01	End date holiday period 6 (MM.DD)
TimeHp.Posts(6).FromDate	R,3	407	01.01	Start date holiday period 7 (MM.DD)
TimeHp.Posts(6).ToDate	R,3	408	01.01	End date holiday period 7 (MM.DD)
TimeHp.Posts(7).FromDate	R,3	409	01.01	Start date holiday period 8 (MM.DD)
TimeHp.Posts(7).ToDate	R,3	410	01.01	End date holiday period 8 (MM.DD)
TimeHp.Posts(8).FromDate	R,3	411	01.01	Start date holiday period 9 (MM.DD)
TimeHp.Posts(8).ToDate	R,3	412	01.01	End date holiday period 9 (MM.DD)
TimeHp.Posts(9).FromDate	R,3	413	01.01	Start date holiday period 10 (MM.DD)
TimeHp.Posts(9).ToDate	R,3	414	01.01	End date holiday period 10 (MM.DD)
TimeHp.Posts(10).FromDate	R,3	415	01.01	Start date holiday period 11 (MM.DD)
TimeHp.Posts(10).ToDate	R,3	416	01.01	End date holiday period 11 (MM.DD)
TimeHp.Posts(11).FromDate	R,3	417	01.01	Start date holiday period 12 (MM.DD)
TimeHp.Posts(11).ToDate	R,3	418	01.01	End date holiday period 12 (MM.DD)
TimeHp.Posts(12).FromDate	R,3	419	01.01	Start date holiday period 13 (MM.DD)
TimeHp.Posts(12).ToDate	R,3	420	01.01	End date holiday period 13 (MM.DD)
TimeHp.Posts(13).FromDate	R,3	421	01.01	Start date holiday period 14 (MM.DD)
TimeHp.Posts(13).ToDate	R,3	422	01.01	End date holiday period 14 (MM.DD)
TimeHp.Posts(14).FromDate	R,3	423	01.01	Start date holiday period 15 (MM.DD)
TimeHp.Posts(14).ToDate	R,3	424	01.01	End date holiday period 15 (MM.DD)
TimeHp.Posts(15).FromDate	R,3	425	01.01	Start date holiday period 16 (MM.DD)
TimeHp.Posts(15).ToDate	R,3	426	01.01	End date holiday period 16 (MM.DD)
TimeHp.Posts(16).FromDate	R,3	427	01.01	Start date holiday period 17 (MM.DD)
TimeHp.Posts(16).ToDate	R,3	428	01.01	End date holiday period 17 (MM.DD)
TimeHp.Posts(17).FromDate	R,3	429	01.01	Start date holiday period 18 (MM.DD)
TimeHp.Posts(17).ToDate	R,3	430	01.01	End date holiday period 18 (MM.DD)
TimeHp.Posts(18).FromDate	R,3	431	01.01	Start date holiday period 19 (MM.DD)
TimeHp.Posts(18).ToDate	R,3	432	01.01	End date holiday period 19 (MM.DD)
TimeHp.Posts(19).FromDate	R,3	433	01.01	Start date holiday period 20 (MM.DD)
TimeHp.Posts(19).ToDate	R,3	434	01.01	End date holiday period 20 (MM.DD)



Signal name	Type	Modbus address	Default value	Description
TimeHp.Posts(20).FromDate	R,3	435	01.01	Start date holiday period 21 (MM.DD)
TimeHp.Posts(20).ToDate	R,3	436	01.01	End date holiday period 21 (MM.DD)
TimeHp.Posts(21).FromDate	R,3	437	01.01	Start date holiday period 22 (MM.DD)
TimeHp.Posts(21).ToDate	R,3	438	01.01	End date holiday period 22 (MM.DD)
TimeHp.Posts(22).FromDate	R,3	439	01.01	Start date holiday period 23 (MM.DD)
TimeHp.Posts(22).ToDate	R,3	440	01.01	End date holiday period 23 (MM.DD)
TimeHp.Posts(23).FromDate	R,3	441	01.01	Start date holiday period 24 (MM.DD)
TimeHp.Posts(23).ToDate	R,3	442	01.01	End date holiday period 24 (MM.DD)

### 5.13. Real Time Clock

Signal name	Type	Modbus address	Default value	Description
QSystem.Sec	X,3	527		Real time clock: Second 0-59
QSystem.Minute	X,3	528		Real time clock: Minute 0-59
QSystem.Hour	X,3	529		Real time clock: Hour 0-23
QSystem.WDay	X,3	530		Real time clock: Day of Week 1-7, 1=Monday
QSystem.Week	X,3	531		Real time clock: Week number 1-53
QSystem.Date	X,3	532		Real time clock: Day of month 1-31
QSystem.Month	X,3	533		Real time clock: Month 1-12
QSystem.Year	X,3	534		Real time clock: Year 0-99

# Chapter 6 Settings

## 6.1. Control temp

Signal name	Type	Modbus address	Default value	Description
HeatingSettings.Cor_HS1PID_PGain	R,3	443	100°C	P-band supply HS1 control
HeatingSettings.Cor_HS1PID_ITime	R,3	444	100 s	I-time supply HS1 control
HeatingSettings.Cor_HS2PID_PGain	R,3	445	100°C	P-band supply HS2 control
HeatingSettings.Cor_HS2PID_ITime	R,3	446	100 s	I-time supply HS2 control
HeatingSettings.Cor_HS3PID_PGain	R,3	447	100°C	P-band supply HS3 control
HeatingSettings.Cor_HS3PID_ITime	R,3	448	100 s	I-time supply HS3 control
HeatingSettings.Cor_HW1PID_PGain	R,3	449	25°C	P-band shutdown mode HWC1
HeatingSettings.Cor_HW1PID_ITime	R,3	450	75°C	I-time shutdown mode HWC1
HeatingSettings.Cor_HW2PID_PGain	R,3	451	25°C	P-band shutdown mode HWC2
HeatingSettings.Cor_HW2PID_ITime	R,3	452	75°C	I-time shutdown mode HWC2
HeatingSettings.Cor_HS1RetPID_Pgain	R,3	595		P-band HS1 Return temp.
HeatingSettings.Cor_HS1RetPID_Itime	R,3	596		I-time HS1 Return temp.
HeatingSettings.Cor_HS2RetPID_Pgain	R,3	597		P-band HS2 Return temp.
HeatingSettings.Cor_HS2RetPID_ITime	R,3	598		I-time HS2 Return temp.
HeatingSettings.Cor_CS1PID_Pgain	R,3	599		P-band supply CS1 control
HeatingSettings.Cor_CS1PID_ITime	R,3	600		I-time supply CS1 control

## 6.2. Control pressure (DP)

Signal name	Type	Modbus address	Default value	Description
HeatingSettings.Cor_DPPID_PGain	R,3	453	25 kPa	P-band pressure control DP
HeatingSettings.Cor_DPPID_ITime	R,3	454	100 s	I-time pressure control DP
HeatingSettings.Cor_DPPID_MinOutput	R,3	455	0 kPa	Min. output pressure control DP

## 6.3. Alarm limits

Signal name	Type	Modbus address	Default value	Description
HeatingSettings.Cor_HS1MaxDiff(0)	R,3	456	20 °C	Max control deviation supply temp HS1
HeatingSettings.Cor_HS2MaxDiff	R,3	457	20 °C	Max control deviation supply temp HS2
HeatingSettings.Cor_HS3MaxDiff	R,3	458	20 °C	Max control deviation supply temp HS3
HeatingSettings.Cor_HW1MaxDiff	R,3	459	20 °C	Max control deviation supply temp HW1
HeatingSettings.Cor_HW2MaxDiff	R,3	460	20 °C	Max control deviation supply temp HW2
HeatingSettings.Cor_CS1MaxDiff	R,3	603	20 °C	Max Control deviation supply temp CS1
HeatingSettings.Cor_HW1HighTemp	R,3	461	65 °C	Scalding HWC1
HeatingSettings.Cor_HW2HighTemp	R,3	462	65 °C	Scalding HWC2
HeatingSettings.Cor_BoilerHighTemp	R,3	463	70 °C	High boiler temperature
HeatingSettings.Cor_BoilerLowTemp	R,3	464	30 °C	Low boiler temperature
HeatingSettings.Cor_WaterConsumptionMax	R,3	465	10000 l	High 24h water usage
HeatingSettings.Cor_WaterLowestConsumptionYesterdayMax	R,3	466	10000 l	High 1h water usage
HeatingSettings.Cor_EnergyConsumptionMax	R,3	467	10000k Wh	High 24h energy usage
HeatingSettings.Cor_WaterPulseTimeMax	R,3	468	0 min	Max time between volume pulse
HeatingSettings.Cor_EnergyPulseTimeMax	R,3	469	0 min	Max time between energy pulse
HeatingSettings.Cor_CW1PulseTimeMax	R,3	470	0 min	Max time between cold water puls 1
HeatingSettings.Cor_CW2PulseTimeMax	R,3	471	0 min	Max time between cold water puls 2
HeatingSettings.Cor_LeakHighLimit	R,3	472	3 kW	Permitted leakage

## 6.4. Alarm delays

Signal name	Type	Modbus address	Default value	Description
AlaData.AlaPt13_DelayValue	I,3I,3	473	60 min	Alarm delay control deviation supply temp HS1
AlaData.AlaPt14_DelayValue	I,3	474	60 min	Alarm delay control deviation supply temp HS2
AlaData.AlaPt15_DelayValue	I,3	475	60 min	Alarm delay control deviation supply temp HS3
AlaData.AlaPt16_DelayValue	I,3	476	60 min	Alarm delay control deviation supply temp HWC1
AlaData.AlaPt17_DelayValue	I,3	477	60 min	Alarm delay control deviation supply temp HWC2
AlaData.AlaPt19_DelayValue	I,3	478	300 s	Alarm delay scalding HWC1
AlaData.AlaPt20_DelayValue	I,3	479	300 s	Alarm delay scalding HWC2
AlaData.AlaPt21_DelayValue	I,3	480	0 s	Alarm delay high boiler temp
AlaData.AlaPt22_DelayValue	I,3	481	0 s	Alarm delay low boiler temp
AlaData.AlaPt10_DelayValue	I,3	482	60 s	Alarm delay expansion vessel
AlaData.AlaPt11_DelayValue	I,3	483	0 s	Alarm delay external alarm

# Chapter 7 Manual/Auto

## 7.1. Manual/Auto

Signal name	Type	Modbus address	Default value	Description
HeatingSettings.Cor_HS1PID_Select	X,3	484	2	Manual/Auto HS1: 0=Manual-Off 1=Manual-On 2=Auto
HeatingSettings.Cor_HS1PID_ManSet	R,3	485	0 %	HS1 Supply temp controller output if Manual-On mode
HeatingSettings.Cor_HS2PID_Select	X,3	486	2	Manual/Auto HS2: 0=Manual-Off 1=Manual-On 2=Auto
HeatingSettings.Cor_HS2PID_ManSet	R,3	487	0 %	HS2 Supply temp controller output if Manual-On mode
HeatingSettings.Cor_HS3PID_Select	X,3	488	2	Manual/Auto HS3: 0=Manual-Off 1=Manual-On 2=Auto
HeatingSettings.Cor_HS3PID_ManSet	R,3	489	0 %	HS3 Supply temp controller output if Manual-On mode
HeatingSettings.Cor_HW1PID_Select	X,3	490	2	Manual/Auto HWC1: 0=Manual-Off 1=Manual-On 2=Auto
HeatingSettings.Cor_HW1PID_ManSet	R,3	491	0 %	HWC1 Supply temp controller output if Manual-On mode
HeatingSettings.Cor_HW2PID_Select	X,3	492	2	Manual/Auto HWC2: 0=Manual-Off 1=Manual-On 2=Auto
HeatingSettings.Cor_HW2PID_ManSet	R,3	493	0 %	HWC2 Supply temp controller output if Manual-On mode
HeatingSettings.Cor_DPPID_Select	X,3	494	2	Manual/Auto Pressure control: 0=Manual-Off 1=Manual-On 2=Auto
HeatingSettings.Cor_DPPID_ManSet	R,3	495	0 %	Pressure controller output if Manual-On mode
HeatingSettings.Cor_DPPID_MinOutput	R,3	496	0 %	Minimum pressure controller output
HeatingSettings.Cor_HS1PumpAAutoMode (0)	X,3	497	2	Manual/Auto HS1 P1A: 0=Manual-Off 1=Manual-On 2=Auto

Signal name	Type	Modbus address	Default value	Description
HeatingSettings.Cor_HS1PumpBAutoMode	X,3	498	2	Manual/Auto HS1 P1B: 0=Manual-Off 1=Manual-On 2=Auto
HeatingSettings.Cor_HS2PumpAAutoMode	X,3	499	2	Manual/Auto HS2 P1A: 0=Manual-Off 1=Manual-On 2=Auto
HeatingSettings.Cor_HS2PumpBAutoMode	X,3	500	2	Manual/Auto HS2 P1B: 0=Manual-Off 1=Manual-On 2=Auto
HeatingSettings.Cor_HS3PumpAAutoMode	X,3	501	2	Manual/Auto HS3 P1A: 0=Manual-Off 1=Manual-On 2=Auto
HeatingSettings.Cor_HS3PumpBAutoMode	X,3	502	2	Manual/Auto HS3 P1B: 0=Manual-Off 1=Manual-On 2=Auto
HeatingSettings.Cor_HW1PumpAutoMode	X,3	503	2	Manual/Auto HWC1: 0=Manual-Off 1=Manual-On 2=Auto
HeatingSettings.Cor_HP1PumpAutoMode	X,3	504	2	Manual/Auto HP1: 0=Manual-Off 1=Manual-On 2=Auto
HeatingSettings.Cor_FrequencerAutoMode	X,3	505	2	Manual/Auto Frequency converter: 0=Manual-Off 1=Manual-On 2=Auto
HeatingSettings.Cor_BoilerAutoMode	X,3	506	4	Manual/Auto boiler: 0=Manual-Off 1=Start 1 2=Start 2 3=Start 1 and Start 2 4=Auto
TimePro.TimeGroupStatusHS1	X,3	508	4	Manual/Auto Comfort time HS1 0=Manual-Off 1=Manual-On 2=Forced Off 3=Forced On 4=Auto
TimePro.TimeGroupStatusHS2	X,3	509	4	Manual/Auto Comfort time HS2 0=Manual-Off 1=Manual-On 2=Forced Off 3=Forced On 4=Auto

Signal name	Type	Modbus address	Default value	Description
TimePro.TimeGroupStatusHS3	X,3	510	4	Manual/Auto Comfort time HS3 0=Manual-Off 1=Manual-On 2=Forced Off 3=Forced On 4=Auto
TimePro.TimeGroupStatusHW1	X,3	511	4	Manual/Auto Comfort time HW1 0=Manual-Off 1=Manual-On 2=Forced Off 3=Forced On 4=Auto
TimePro.TimeGroupStatusHW2	X,3	512	4	Manual/Auto Comfort time HW2 0=Manual-Off 1=Manual-On 2=Forced Off 3=Forced On 4=Auto
TimePro. TimeGroupStatusCor_ExtraTimeGroup1	X,3	513	4	Manual/Auto Timer output 1 0=Manual-Off 1=Manual-On 2=Forced Off 3=Forced On 4=Auto
TimePro. TimeGroupStatusCor_ExtraTimeGroup2	X,3	514	4	Manual/Auto Timer output 2 0=Manual-Off 1=Manual-On 2=Forced Off 3=Forced On 4=Auto
TimePro. TimeGroupStatusCor_ExtraTimeGroup3	X,3	515	4	Manual/Auto Timer output 3 0=Manual-Off 1=Manual-On 2=Forced Off 3=Forced On 4=Auto
TimePro. TimeGroupStatusCor_ExtraTimeGroup4	X,3	516	4	Manual/Auto Timer output 4 0=Manual-Off 1=Manual-On 2=Forced Off 3=Forced On 4=Auto
TimePro. TimeGroupStatusCor_ExtraTimeGroup5	X,3	517	4	Manual/Auto Timer output 5 0=Manual-Off 1=Manual-On 2=Forced Off 3=Forced On 4=Auto
HeatingSettings.Cor_HS1RetPID_Select	X,3	589		Manual/Auto HS1 Return temp.: 0=Manual-Off 1=Manual-On 2=Auto
HeatingSettings.Cor_HS1RetPID_ManSet	R,3	590		HS1 Return temp. controller output if Manual-On mode

Signal name	Type	Modbus address	Default value	Description
HeatingSettings.Cor_HS2RetPID_Select	X,3	591		Manual/Auto HS2 Return temp.: 0=Manual-Off 1=Manual-On 2=Auto
HeatingSettings.Cor_HS2RetPID_ManSet	R,3	592		HS2 Return temp. controller output if Manual-On mode
HeatingSettings.Cor_CS1PID_Select	X,3	593		Manual/Auto CS1: 0=Manual-Off 1=Manual-On 2=Auto
HeatingSettings.Cor_CS1PID_ManSet	R,3	594		CS1 Supply temp controller output if Manual-On mode
HeatingSettings.Cor_CS1PumpAAutoMode	X,3	601		Manual/Auto CS1 P1A: 0=Manual-Off 1=Manual-On 2=Auto
HeatingSettings.Cor_CS1PumpBAutoMode	X,3	602		Manual/Auto CS1 P1B: 0=Manual-Off 1=Manual-On 2=Auto
TimePro.TimeGroupStatusCS1	X,3	616		Manual/Auto Comfort time CS1 0=Manual-Off 1=Manual-On 2=Forced Off 3=Forced On 4=Auto
HeatingSettings.Cor_PowerLimitPID_Select	X,3	618		Manual/Auto HS1 power limit.: 0=Manual-Off 1=Manual-On 2=Auto
HeatingSettings.Cor_PowerLimitPID_ManSet	R,3	619		HS1 power limit controller output if Manual-On mode
HeatingSettings.Cor_CS1CoolUnitAutoMode	X,3	622		Manual/Auto CS1 Cool Unit: 0=Manual-Off 1=Manual-On 2=Auto

# Chapter 8 Alarm status

## 8.1. Alarm status

Signal name	Type	Modbus address	Default value	Description
AlaData.AlaPt1_Status	X,4	88		Malfunction P1A-HS1: 0=Not used 1=Normal 2=Blocked 3=Acknowledge 4=Not used 5=Cancelled 6=Not used 7=Alarm
AlaData.AlaPt2_Status	X,4	89		Malfunction P1B-HS1
AlaData.AlaPt3_Status	X,4	90		Malfunction P1A-HS2
AlaData.AlaPt4_Status	X,4	91		Malfunction P1B-HS2
AlaData.AlaPt5_Status	X,4	92		Malfunction P1A-HS3
AlaData.AlaPt6_Status	X,4	93		Malfunction P1B-HS3
AlaData.AlaPt7_Status	X,4	94		Malfunction P1-HWC1
AlaData.AlaPt8_Status	X,4	95		Malfunction P1-HP1
AlaData.AlaPt9_Status	X,4	96		Malfunction frequency converter
AlaData.AlaPt10_Status	X,4	97		Expansion vessel
AlaData.AlaPt11_Status	X,4	98		External alarm
AlaData.AlaPt12_Status	X,4	99		Boiler alarm
AlaData.AlaPt13_Status	X,4	100		Deviation HS1
AlaData.AlaPt14_Status	X,4	101		Deviation HS2
AlaData.AlaPt15_Status	X,4	102		Deviation HS3
AlaData.AlaPt16_Status	X,4	103		Deviation HWC1
AlaData.AlaPt17_Status	X,4	104		Deviation HWC2
AlaData.AlaPt18_Status	X,4	105		Sensor error outdoor temp
AlaData.AlaPt19_Status	X,4	106		High HWC1 temp
AlaData.AlaPt20_Status	X,4	107		High HWC2 temp
AlaData.AlaPt21_Status	X,4	108		High Boiler temp
AlaData.AlaPt22_Status	X,4	109		Low Boiler temp
AlaData.AlaPt23_Status	X,4	110		Pulse error volume
AlaData.AlaPt24_Status	X,4	111		Pulse error energy
AlaData.AlaPt25_Status	X,4	112		High cold water usage/day
AlaData.AlaPt26_Status	X,4	113		High energy usage
AlaData.AlaPt27_Status	X,4	114		High cold water usage/hour
AlaData.AlaPt28_Status	X,4	115		High leakage



Signal name	Type	Modbus address	Default value	Description
AlaData.AlaPt29_Status	X,4	116		Malfunction P1A&B-HS1
AlaData.AlaPt30_Status	X,4	117		Malfunction P1A&B-HS2
AlaData.AlaPt31_Status	X,4	118		Malfunction P1A&B-HS3
AlaData.AlaPt32_Status	X,4	119		Pulse error CW1
AlaData.AlaPt33_Status	X,4	120		Pulse error CW2
AlaData.AlaPt34_Status	X,4	121		HS1 manual
AlaData.AlaPt35_Status	X,4	122		HS2 manual
AlaData.AlaPt36_Status	X,4	123		HS3 manual
AlaData.AlaPt37_Status	X,4	124		HWC1 manual
AlaData.AlaPt38_Status	X,4	125		HWC2 manual
AlaData.AlaPt39_Status	X,4	126		Pressure manual
AlaData.AlaPt40_Status	X,4	127		Boiler manual
AlaData.AlaPt41_Status	X,4	128		P1A-HS1 manual
AlaData.AlaPt42_Status	X,4	129		P1B-HS1 manual
AlaData.AlaPt43_Status	X,4	130		P1A-HS2 manual
AlaData.AlaPt44_Status	X,4	131		P1B-HS2 manual
AlaData.AlaPt45_Status	X,4	132		P1A-HS3 manual
AlaData.AlaPt46_Status	X,4	133		P1B-HS3 manual
AlaData.AlaPt47_Status	X,4	134		P1-HWC1 manual
AlaData.AlaPt48_Status	X,4	135		P1-HP1 manual
AlaData.AlaPt49_Status	X,4	136		P1-Freq. manual
AlaData.AlaPt50_Status	X,4	137		HS1 Supply Max
AlaData.AlaPt51_Status	X,4	138		HS2 Supply Max
AlaData.AlaPt52_Status	X,4	139		HS3 Supply Max
AlaData.AlaPt53_Status	X,4	140		HS1 Supply Min
AlaData.AlaPt54_Status	X,4	141		HS2 Supply Min
AlaData.AlaPt55_Status	X,4	142		HS3 Supply Min
AlaData.AlaPt56_Status	X,4	143		HS1 Return Max
AlaData.AlaPt57_Status	X,4	144		HS2 Return Max
AlaData.AlaPt58_Status	X,4	145		HS3 Return Max
AlaData.AlaPt59_Status	X,4	146		HS1Return Min
AlaData.AlaPt60_Status	X,4	147		HS2 Return Min
AlaData.AlaPt61_Status	X,4	148		HS3 Return Min
AlaData.AlaPt62_Status	X,4	149		HS1 Frost
AlaData.AlaPt63_Status	X,4	150		HS2 Frost
AlaData.AlaPt64_Status	X,4	151		HS3 Frost
AlaData.AlaPt65_Status	X,4	152		Internal battery error
AlaData.AlaPt66_Status	X,4	167		Low Boiler return temp
AlaData.AlaPt67_Status	X,4	168		Sensor error HS1 Supply
AlaData.AlaPt68_Status	X,4	169		Sensor error HS2 Supply
AlaData.AlaPt69_Status	X,4	170		Sensor error HS3 Supply
AlaData.AlaPt70_Status	X,4	171		Sensor error HW1 Supply
AlaData.AlaPt71_Status	X,4	172		Sensor error HW2 Supply

Signal name	Type	Modbus address	Default value	Description
AlaData.AlaPt72_Status	X,4	173		Sensor error HP1 Supply
AlaData.AlaPt73_Status	X,4	174		Sensor error HS1 Room
AlaData.AlaPt74_Status	X,4	175		Sensor error HS2 Room
AlaData.AlaPt75_Status	X,4	176		Sensor error HS3 Room
AlaData.AlaPt76_Status	X,4	177		Sensor error HS1 Return
AlaData.AlaPt77_Status	X,4	178		Sensor error HS2 Return
AlaData.AlaPt78_Status	X,4	179		Sensor error HS3 Return
AlaData.AlaPt79_Status	X,4	180		Sensor error HP1 Return
AlaData.AlaPt80_Status	X,4	181		Sensor error Wind
AlaData.AlaPt81_Status	X,4	182		Sensor error Pressure
AlaData.AlaPt82_Status	X,4	183		Sensor error Boiler temp
AlaData.AlaPt83_Status	X,4	184		Sensor error Boiler Return
AlaData.AlaPt84_Status	X,4	185		Sensor error CS1 Supply
AlaData.AlaPt85_Status	X,4	186		Sensor error CS1 Return
AlaData.AlaPt86_Status	X,4	187		Sensor error HP Supply
AlaData.AlaPt87_Status	X,4	188		Sensor error HP Return
AlaData.AlaPt88_Status	X,4	189		Sensor error CP Supply
AlaData.AlaPt89_Status	X,4	190		Sensor error CP Return
AlaData.AlaPt106_Status	X,4	207		Deviation CS1
AlaData.AlaPt107_Status	X,4	208		CS1 manual
AlaData.AlaPt108_Status	X,4	209		CS1 Supply Max
AlaData.AlaPt109_Status	X,4	210		CS1 Supply Min
AlaData.AlaPt110_Status	X,4	211		CS1 Return Max
AlaData.AlaPt111_Status	X,4	212		CS1 Return Min
AlaData.AlaPt112_Status	X,4	213		Malfunction P1A-CS1
AlaData.AlaPt113_Status	X,4	214		Malfunction P1B-CS1
AlaData.AlaPt114_Status	X,4	215		Malfunction P1A&B-CS1
AlaData.AlaPt115_Status	X,4	216		P1A-CS1 manual
AlaData.AlaPt116_Status	X,4	217		P1B-CS1 manual
AlaData.AlaPt117_Status	X,4	218		Communication error Expansion unit 1
AlaData.AlaPt118_Status	X,4	219		Communication error Expansion unit 2
AlaData.AlaPt119_Status	X,4	220		Communication error M-bus DHM 1
AlaData.AlaPt120_Status	X,4	221		Communication error M-bus WM 1
AlaData.AlaPt121_Status	X,4	222		Communication error M-bus WM 2
AlaData.AlaPt122_Status	X,4	223		Low return temp HW1

## 8.2. Alarm points

Signal name	Type	Modbus address	Default value	Description
HeatingActual.Cor_AlaPt(1)	L,2	38		Malfunction P1A-HS1: 0=No alarm 1=Alarm
HeatingActual.Cor_AlaPt(2)	L,2	39		Malfunction P1B-HS1
HeatingActual.Cor_AlaPt(3)	L,2	40		Malfunction P1A-HS2
HeatingActual.Cor_AlaPt(4)	L,2	41		Malfunction P1B-HS2
HeatingActual.Cor_AlaPt(5)	L,2	42		Malfunction P1A-HS3
HeatingActual.Cor_AlaPt(6)	L,2	43		Malfunction P1B-HS3
HeatingActual.Cor_AlaPt(7)	L,2	44		Malfunction P1-HWC1
HeatingActual.Cor_AlaPt(8)	L,2	45		Malfunction P1-HP1
HeatingActual.Cor_AlaPt(9)	L,2	46		Malfunction frequency converter
HeatingActual.Cor_AlaPt(10)	L,2	47		Expansion vessel
HeatingActual.Cor_AlaPt(11)	L,2	48		External alarm
HeatingActual.Cor_AlaPt(12)	L,2	49		Boiler alarm
HeatingActual.Cor_AlaPt(13)	L,2	50		Deviation HS1
HeatingActual.Cor_AlaPt(14)	L,2	51		Deviation HS2
HeatingActual.Cor_AlaPt(15)	L,2	52		Deviation HS3
HeatingActual.Cor_AlaPt(16)	L,2	53		Deviation HWC1
HeatingActual.Cor_AlaPt(17)	L,2	54		Deviation HWC2
HeatingActual.Cor_AlaPt(18)	L,2	55		Sensor error outdoor temp
HeatingActual.Cor_AlaPt(19)	L,2	56		High HWC1 temp
HeatingActual.Cor_AlaPt(20)	L,2	57		High HWC2 temp
HeatingActual.Cor_AlaPt(21)	L,2	58		High Boiler temp
HeatingActual.Cor_AlaPt(22)	L,2	59		Low Boiler temp
HeatingActual.Cor_AlaPt(23)	L,2	60		Pulse error volume
HeatingActual.Cor_AlaPt(24)	L,2	61		Pulse error energy
HeatingActual.Cor_AlaPt(25)	L,2	62		High cold water usage/day
HeatingActual.Cor_AlaPt(26)	L,2	63		High energy usage
HeatingActual.Cor_AlaPt(27)	L,2	64		High cold water usage/hour
HeatingActual.Cor_AlaPt(28)	L,2	65		High leakage
HeatingActual.Cor_AlaPt(29)	L,2	66		Malfunction P1A&B-HS1
HeatingActual.Cor_AlaPt(30)	L,2	67		Malfunction P1A&B-HS2
HeatingActual.Cor_AlaPt(31)	L,2	68		Malfunction P1A&B-HS3
HeatingActual.Cor_AlaPt(32)	L,2	69		Pulse error CW1
HeatingActual.Cor_AlaPt(33)	L,2	70		Pulse error CW2
HeatingActual.Cor_AlaPt(34)	L,2	71		HS1 manual
HeatingActual.Cor_AlaPt(35)	L,2	72		HS2 manual
HeatingActual.Cor_AlaPt(36)	L,2	73		HS3 manual
HeatingActual.Cor_AlaPt(37)	L,2	74		HWC1 manual
HeatingActual.Cor_AlaPt(38)	L,2	75		HWC2 manual
HeatingActual.Cor_AlaPt(39)	L,2	76		Pressure manual

Signal name	Type	Modbus address	Default value	Description
HeatingActual.Cor_AlaPt(40)	L,2	77		Boiler manual
HeatingActual.Cor_AlaPt(41)	L,2	78		P1A-HS1 manual
HeatingActual.Cor_AlaPt(42)	L,2	79		P1B-HS1 manual
HeatingActual.Cor_AlaPt(43)	L,2	80		P1A-HS2 manual
HeatingActual.Cor_AlaPt(44)	L,2	81		P1B-HS2 manual
HeatingActual.Cor_AlaPt(45)	L,2	82		P1A-HS3 manual
HeatingActual.Cor_AlaPt(46)	L,2	83		P1B-HS3 manual
HeatingActual.Cor_AlaPt(47)	L,2	84		P1-HWC1 manual
HeatingActual.Cor_AlaPt(48)	L,2	85		P1-HP1 manual
HeatingActual.Cor_AlaPt(49)	L,2	86		P1-Freq. manual
HeatingActual.Cor_AlaPt(50)	L,2	87		HS1 Supply Max
HeatingActual.Cor_AlaPt(51)	L,2	88		HS2 Supply Max
HeatingActual.Cor_AlaPt(52)	L,2	89		HS3 Supply Max
HeatingActual.Cor_AlaPt(53)	L,2	90		HS1 Supply Min
HeatingActual.Cor_AlaPt(54)	L,2	91		HS2 Supply Min
HeatingActual.Cor_AlaPt(55)	L,2	92		HS3 Supply Min
HeatingActual.Cor_AlaPt(56)	L,2	93		HS1 Return Max
HeatingActual.Cor_AlaPt(57)	L,2	94		HS2 Return Max
HeatingActual.Cor_AlaPt(58)	L,2	95		HS3 Return Max
HeatingActual.Cor_AlaPt(59)	L,2	96		HS1Return Min
HeatingActual.Cor_AlaPt(60)	L,2	97		HS2 Return Min
HeatingActual.Cor_AlaPt(61)	L,2	98		HS3 Return Min
HeatingActual.Cor_AlaPt(62)	L,2	99		HS1 Frost
HeatingActual.Cor_AlaPt(63)	L,2	100		HS2 Frost
HeatingActual.Cor_AlaPt(64)	L,2	101		HS3 Frost
HeatingActual.Cor_AlaPt(65)	L,2	102		Internal battery error
HeatingActual.Cor_AlaPt(66)	L,2	114		Low Boiler return temp
HeatingActual.Cor_AlaPt(67)	L,2	115		Sensor error HS1 Supply
HeatingActual.Cor_AlaPt(68)	L,2	116		Sensor error HS2 Supply
HeatingActual.Cor_AlaPt(69)	L,2	117		Sensor error HS3 Supply
HeatingActual.Cor_AlaPt(70)	L,2	118		Sensor error HW1 Supply
HeatingActual.Cor_AlaPt(71)	L,2	119		Sensor error HW2 Supply
HeatingActual.Cor_AlaPt(72)	L,2	120		Sensor error HP1 Supply
HeatingActual.Cor_AlaPt(73)	L,2	121		Sensor error HS1 Room
HeatingActual.Cor_AlaPt(74)	L,2	122		Sensor error HS2 Room
HeatingActual.Cor_AlaPt(75)	L,2	123		Sensor error HS3 Room
HeatingActual.Cor_AlaPt(76)	L,2	124		Sensor error HS1 Return
HeatingActual.Cor_AlaPt(77)	L,2	125		Sensor error HS2 Return
HeatingActual.Cor_AlaPt(78)	L,2	126		Sensor error HS3 Return
HeatingActual.Cor_AlaPt(79)	L,2	127		Sensor error HP1 Return
HeatingActual.Cor_AlaPt(80)	L,2	128		Sensor error Wind
HeatingActual.Cor_AlaPt(81)	L,2	129		Sensor error Pressure
HeatingActual.Cor_AlaPt(82)	L,2	130		Sensor error Boiler temp

Signal name	Type	Modbus address	Default value	Description
HeatingActual.Cor_AlaPt(83)	L,2	131		Sensor error Boiler Return
HeatingActual.Cor_AlaPt(84)	L,2	132		Sensor error CS1 Supply
HeatingActual.Cor_AlaPt(85)	L,2	133		Sensor error CS1 Return
HeatingActual.Cor_AlaPt(86)	L,2	134		Sensor error HP Supply
HeatingActual.Cor_AlaPt(87)	L,2	135		Sensor error HP Return
HeatingActual.Cor_AlaPt(88)	L,2	136		Sensor error CP Supply
HeatingActual.Cor_AlaPt(89)	L,2	137		Sensor error CP Return
HeatingActual.Cor_AlaPt(106)	L,2	154		Deviation CS1
HeatingActual.Cor_AlaPt(107)	L,2	155		CS1 manual
HeatingActual.Cor_AlaPt(108)	L,2	156		CS1 Supply Max
HeatingActual.Cor_AlaPt(109)	L,2	157		CS1 Supply Min
HeatingActual.Cor_AlaPt(110)	L,2	158		CS1 Return Max
HeatingActual.Cor_AlaPt(111)	L,2	159		CS1 Return Min
HeatingActual.Cor_AlaPt(112)	L,2	160		Malfunction P1A-CS1
HeatingActual.Cor_AlaPt(113)	L,2	161		Malfunction P1B-CS1
HeatingActual.Cor_AlaPt(114)	L,2	162		Malfunction P1A&B-CS1
HeatingActual.Cor_AlaPt(115)	L,2	163		P1A-CS1 manual
HeatingActual.Cor_AlaPt(116)	L,2	164		P1B-CS1 manual
HeatingActual.Cor_AlaPt(117)	L,2	165		Communication error Expansion unit 1
HeatingActual.Cor_AlaPt(118)	L,2	166		Communication error Expansion unit 2
HeatingActual.Cor_AlaPt(119)	L,2	167		Communication error M-bus DHM 1
HeatingActual.Cor_AlaPt(120)	L,2	168		Communication error M-bus WM 1
HeatingActual.Cor_AlaPt(121)	L,2	169		Communication error M-bus WM 2
HeatingActual.Cor_AlaPt(122)	L,2	170		Low return temp HW1

### 8.3. Alarm Acknowledging, Blocking and Unblocking

Signal name	Type	Modbus address	Default value	Description
Alarms.AlaAcknow	X,3	518	255	External alarm acknowledge by setting this signal to the alarm number that should be acknowledge.
Alarms.AlaBlock	X,3	519	255	External alarm blocking by setting this signal to the alarm number that should be blocked.
Alarms.AlaUnBlock	X,3	520	255	External alarm unblocking by setting this signal to the alarm number that should be unblocked.



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