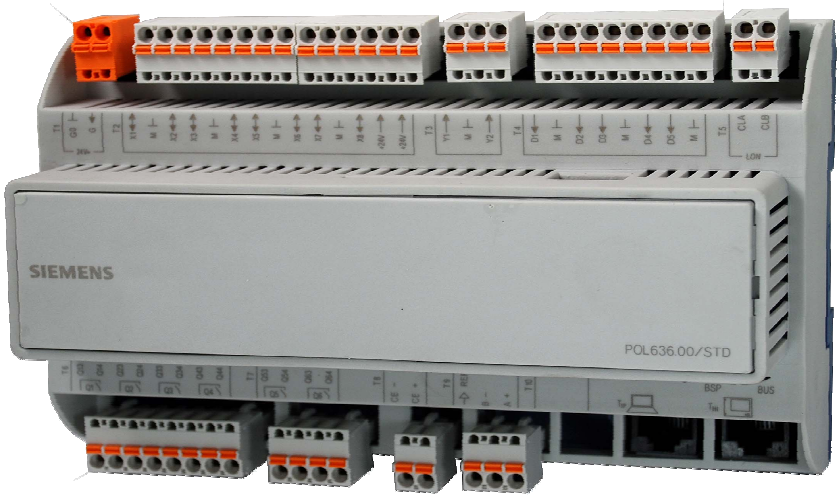
SIEMENS



Climatix™®
Modbus communication, slave mode
Reference addresses

IV Produkt ZON application v1.0x

CB1P3934en_0.8_RefAdr
2009-11-30

Building Technologies

Siemens Switzerland Ltd.
Building Technologies Group
International Headquarters
Gubelstrasse 22
CH-6301 Zug
Tel. +41 41-724 24 24
Fax +41 41-724 35 22
www.siemens.com/sbt

Table of contents

1 About this document

1.1 Revision history

Version	Date	Changes	Section	Pages
BETA				

1.2 Before you start

Engineering gude

This document is only a compliment to the general engineering guide for Climatix Modbus communication, slave mode. That document must be read first and all general information such trademarks, copyright etc is valid for this document as well.

This document only contain the uniqe information for the product below, all general engineering information such mounting modules, communication settings etc are described in the engineering guide.

Validity

This document applies to the following product:

Name	Type (ASN)	Version
IV produkt ZON		1.0x

Prerequisites

- User has read the general Modbus engenering guide for Climatix, CB1P3934.

1.3 Reference documents

Further information

The following documents contain additional information on the products described in this manual:

Document	Order no.
Data sheet "Communication module Modbus"	CB1Q3934en
Basic documentation “Modbus communication module”	CB1P3934

Blank page

2 Application

2.1 General information

What are standard applications?

Standard applications for Climatix comprise predefined monitoring and control functions for a particular plant type.
Features:

- OEM customers receive standard applications as a set of loadable files. They can be loaded in the controller via SD card.
- An HMI operator unit allows for assigning inputs and outputs to the respective plant as well as select, configure and parameterize the required functions.

3 Reference Modbus addresses

3.1 General

Purpose

This section describes the reference addresses used in the specific application, see chapter 1.2.

Modbus data formats

Modbus type	Description	Reference	Datatype
Coil status	Read/Write Discrete output	0x	1bit
Input states	Read Discrete input	1x	1bit
Input register	Read Input register	3x	16bit signed or unsigned word
Holding register	Read/Write Output register	4x	16bit signed or unsigned word

3.2 Coil status

Table of coil states

Adress	Description	Values /Units	Remarks
	Present value		
0x0001	Alarm acknowledge	0-1	Off*On
0x0002	Enable communicationtest	0-1	No*Yes
0x0003	Communicationtest puls	0-1	0*1
0x0007	Energymeeter reset partial	0-1	Passive*Active
0x0011	Emergency stop input	0-1	Off*On, (I/O)
0x0014	Su/Wi changeover input	0-1	Winter*Summer, (I/O)
0x0016	Zone1 Ext control input	0-1	Off*On, (I/O)
0x0017	Zone2 Ext control input	0-1	Off*On, (I/O)
0x0018	Zone3 Ext control input	0-1	Off*On, (I/O)
0x0019	Zone4 Ext control input	0-1	Off*On, (I/O)

3.3 Input states

Table of input states

Address	Description	Values /Units	Remarks
	Present value		
1x0001	Danger alarm (A)	0-1	Normal*Alarm
1x0002	Critical alarm (A)	0-1	Normal*Alarm
1x0003	Low alarm (B)	0-1	Normal*Alarm
1x0004	Warning alarm (C)	0-1	Normal*Alarm
1x0005	Manual mode	0-1	Auto*Manual
1x0006	Communicationtest puls	0-1	0*1
1x0011	Emergency stop	0-1	Off*On
1x0014	Su/Wi changeover input	0-1	Winter*Summer
1x0016	Zone1 Ext control input	0-1	Off*On
1x0017	Zone2 Ext control input	0-1	Off*On
1x0018	Zone3 Ext control input	0-1	Off*On
1x0019	Zone4 Ext control input	0-1	Off*On

Input states, *continued*

Table of input states, *cont.*

Address	Description	Values /Units	Remarks
	Alarm value		
1x0020	Zone1 Cooling alarm	0-1	OK*Alarm
1x0021	Zone1 Cooling DX fdbk	0-1	OK*Alarm
1x0022	Zone1 Cooling pump alarm	0-1	OK*Alarm
1x0023	Zone1 Htg alarm	0-1	OK*Alarm
1x0024	Zone1 Htg pump fdbk	0-1	OK*Alarm
1x0025	Zone1 Htg frost monitor	0-1	OK*Alarm
1x0026	Zone1 Fan fdbk / Flow detector	0-1	OK*Alarm
1x0027	Zone1 Sply tmp deviation	0-1	OK*Alarm
1x0028	Zone1 Room tmp deviation	0-1	OK*Alarm
1x0029	Zone1 Supply air temp	0-1	OK*Alarm
1x0030	Zone1 Heating frost tmp	0-1	OK*Alarm
1x0031	Zone1 Room temperature	0-1	OK*Alarm
1x0032	Zone1 Exhaust air temp	0-1	OK*Alarm
1x0033	Zone1 External setpoint	0-1	OK*Alarm
1x0040	Zone2 Cooling alarm	0-1	OK*Alarm
1x0041	Zone2 Cooling DX fdbk	0-1	OK*Alarm
1x0042	Zone2 Cooling pump alarm	0-1	OK*Alarm
1x0043	Zone2 Htg alarm	0-1	OK*Alarm
1x0044	Zone2 Htg pump fdbk	0-1	OK*Alarm
1x0045	Zone2 Htg frost monitor	0-1	OK*Alarm
1x0046	Zone2 Fan fdbk / Flow detector	0-1	OK*Alarm
1x0047	Zone2 Sply tmp deviation	0-1	OK*Alarm
1x0048	Zone2 Room tmp deviation	0-1	OK*Alarm
1x0049	Zone2 Supply air temp	0-1	OK*Alarm
1x0050	Zone2 Heating frost tmp	0-1	OK*Alarm
1x0051	Zone2 Room temperature	0-1	OK*Alarm
1x0052	Zone2 Exhaust air temp	0-1	OK*Alarm
1x0053	Zone2 External setpoint	0-1	OK*Alarm
1x0060	Zone3 Cooling alarm	0-1	OK*Alarm
1x0061	Zone3 Cooling DX fdbk	0-1	OK*Alarm
1x0062	Zone3 Cooling pump alarm	0-1	OK*Alarm
1x0063	Zone3 Htg alarm	0-1	OK*Alarm
1x0064	Zone3 Htg pump fdbk	0-1	OK*Alarm
1x0065	Zone3 Htg frost monitor	0-1	OK*Alarm
1x0066	Zone3 Fan fdbk / Flow detector	0-1	OK*Alarm
1x0067	Zone3 Sply tmp deviation	0-1	OK*Alarm
1x0068	Zone3 Room tmp deviation	0-1	OK*Alarm
1x0069	Zone3 Supply air temp	0-1	OK*Alarm
1x0070	Zone3 Heating frost tmp	0-1	OK*Alarm
1x0071	Zone3 Room temperature	0-1	OK*Alarm
1x0072	Zone3 Exhaust air temp	0-1	OK*Alarm
1x0073	Zone3 External setpoint	0-1	OK*Alarm

Table of input states, *cont.*

Address	Description	Values /Units	Remarks
1x0080	Zone4 Cooling alarm	0-1	OK*Alarm
1x0081	Zone4 Cooling DX fdbk	0-1	OK*Alarm
1x0082	Zone4 Cooling pump alarm	0-1	OK*Alarm
1x0083	Zone4 Htg alarm	0-1	OK*Alarm
1x0084	Zone4 Htg pump fdbk	0-1	OK*Alarm
1x0085	Zone4 Htg frost monitor	0-1	OK*Alarm
1x0086	Zone4 Fan fdbk / Flow detector	0-1	OK*Alarm
1x0087	Zone4 Sply tmp deviation	0-1	OK*Alarm
1x0088	Zone4 Room tmp deviation	0-1	OK*Alarm
1x0089	Zone4 Supply air temp	0-1	OK*Alarm
1x0090	Zone4 Heating frost tmp	0-1	OK*Alarm
1x0091	Zone4 Room temperature	0-1	OK*Alarm
1x0092	Zone4 Exhaust air temp	0-1	OK*Alarm
1x0093	Zone4 External setpoint	0-1	OK*Alarm
1x0150	Manual mode alarm	0-1	OK*Alarm
1x0151	Modbus comm alarm	0-1	OK*Alarm
1x0155	Outside air temp	0-1	OK*Alarm

3.4 Input register

Input register table

Address	Description	Values /Units	Remarks
	Unsigned Word		
3x0001	General status (Word 1)	0-65535	0-1 for each bit or counted binary to a decimal number
Bit0	- Alarm class danger (A)		
Bit1	- Alarm class critical (A)		
Bit2	- Alarm class low (B)		
Bit3	- Alarm class warning (C)		
Bit4	-		
Bit5	- Manual control active		
Bit6	- Summer mode		
Bit7	- Communicationtest puls		
Bit8	- Zone1 Preheating active		
Bit9	- Zone2 Preheating active		
Bit10	- Zone3 Preheating active		
Bit11	- Zone4 Preheating active		
Bit12	-		
Bit13	-		
Bit14	-		
Bit15	-		
3x0002	General status (Word 2)	0-65535	0-1 for each bit or counted binary to a decimal number
Bit0	- Zone1 Actual control mode, room		
Bit1	- Zone1 Actual control mode, exhaust		
Bit2	- Zone1 Actual control mode, supply		
Bit3	-		
Bit4	- Zone2 Actual control mode, room		
Bit5	- Zone2 Actual control mode, exhaust		
Bit6	- Zone2 Actual control mode, supply		
Bit7	-		
Bit8	- Zone3 Actual control mode, room		
Bit9	- Zone3 Actual control mode, exhaust		
Bit10	- Zone3 Actual control mode, supply		
Bit11	-		
Bit12	- Zone4 Actual control mode, room		
Bit13	- Zone4 Actual control mode, exhaust		
Bit14	- Zone4 Actual control mode, supply		
Bit15	-		
3x0003	General status (Word 3)	0-65535	0-1 for each bit or counted binary to a decimal number
Bit0	-		
Bit1	-		
Bit2	-		
Bit3	-		
Bit4	-		
Bit5	-		
Bit6	-		
Bit7	-		
Bit8	-		
Bit9	-		
Bit10	-		
Bit11	-		
Bit12	-		
Bit13	-		
Bit14	-		
Bit15	-		

Input register table, *cont.*

Address	Description	Values /Units	Remarks
3x0004	General status (Word 4)	0-65535	0-1 for each bit or counted binary to a decimal number
Bit0	- Zone1 Alarm class danger (A)		
Bit1	- Zone1 Alarm class critical (A)		
Bit2	- Zone1 Alarm class low (B)		
Bit3	- Zone1 Alarm class warning (C)		
Bit4	- Zone2 Alarm class danger (A)		
Bit5	- Zone2 Alarm class critical (A)		
Bit6	- Zone2 Alarm class low (B)		
Bit7	- Zone2 Alarm class warning (C)		
Bit8	- Zone3 Alarm class danger (A)		
Bit9	- Zone3 Alarm class critical (A)		
Bit10	- Zone3 Alarm class low (B)		
Bit11	- Zone3 Alarm class warning (C)		
Bit12	- Zone4 Alarm class danger (A)		
Bit13	- Zone4 Alarm class critical (A)		
Bit14	- Zone4 Alarm class low (B)		
Bit15	- Zone4 Alarm class warning (C)		
3x0005	Digital inputs (Word 1)	0-65535	0-1 for each bit or counted binary to a decimal number
Bit0	- Emergency stop		
Bit1	-		
Bit2	-		
Bit3	- Summer/winter changeover		
Bit4	- Alarm acknowledge		
Bit5	-		
Bit6	-		
Bit7	-		
Bit8	-		
Bit9	-		
Bit10	-		
Bit11	- Zone1 External control		
Bit12	- Zone2 External control		
Bit13	- Zone3 External control		
Bit14	- Zone4 External control		
Bit15	-		
3x0006	Digital inputs (Word 2)	0-65535	0-1 for each bit or counted binary to a decimal number
Bit0	-		
Bit1	-		
Bit2	-		
Bit3	-		
Bit4	-		
Bit5	-		
Bit6	-		
Bit7	-		
Bit8	-		
Bit9	-		
Bit10	-		
Bit11	-		
Bit12	-		
Bit13	-		
Bit14	-		
Bit15	-		

Input register, *continued*

Input register table, *cont.*

Address	Description	Values /Units	Remarks
3x0007	Digital inputs (Word 3)	0-65535	0-1 for each bit or counted binary to a decimal number
Bit0	-		
Bit1	-		
Bit2	-		
Bit3	-		
Bit4	-		
Bit5	-		
Bit6	-		
Bit7	-		
Bit8	-		
Bit9	-		
Bit10	-		
Bit11	-		
Bit12	-		
Bit13	-		
Bit14	-		
Bit15	-		
3x0008	Digital inputs (Word 4)	0-65535	0-1 for each bit or counted binary to a decimal number
Bit0	-		
Bit1	-		
Bit2	-		
Bit3	-		
Bit4	-		
Bit5	-		
Bit6	-		
Bit7	-		
Bit8	-		
Bit9	-		
Bit10	-		
Bit11	-		
Bit12	-		
Bit13	-		
Bit14	-		
Bit15	-		
3x0009	Digital outputs (Word 1)	0-65535	0-1 for each bit or counted binary to a decimal number
Bit0	- Zone1 Cooling pump		
Bit1	- Zone1 Cooling DX, stage 1		
Bit2	- Zone1 Cooling DX, stage 2		
Bit3	- Zone1 Cooling DX, stage 3		
Bit4	- Zone1 Heating pump		
Bit5	- Zone1 Electrical heating, stage 1		
Bit6	- Zone1 Electrical heating, stage 2		
Bit7	- Zone1 Electrical heating, stage 3		
Bit8	- Zone2 Cooling pump		
Bit9	- Zone2 Cooling DX, stage 1		
Bit10	- Zone2 Cooling DX, stage 2		
Bit11	- Zone2 Cooling DX, stage 3		
Bit12	- Zone2 Heating pump		
Bit13	- Zone2 Electrical heating, stage 1		
Bit14	- Zone2 Electrical heating, stage 2		
Bit15	- Zone2 Electrical heating, stage 3		

Input register table, *cont.*

Address	Description	Values /Units	Remarks
3x0010	Digital outputs (Word 2)	0-65535	0-1 for each bit or counted binary to a decimal number
Bit0	- Zone3 Cooling pump		
Bit1	- Zone3 Cooling DX, stage 1		
Bit2	- Zone3 Cooling DX, stage 2		
Bit3	- Zone3 Cooling DX, stage 3		
Bit4	- Zone3 Heating pump		
Bit5	- Zone3 Electrical heating, stage 1		
Bit6	- Zone3 Electrical heating, stage 2		
Bit7	- Zone3 Electrical heating, stage 3		
Bit8	- Zone4 Cooling pump		
Bit9	- Zone4 Cooling DX, stage 1		
Bit10	- Zone4 Cooling DX, stage 2		
Bit11	- Zone4 Cooling DX, stage 3		
Bit12	- Zone4 Heating pump		
Bit13	- Zone4 Electrical heating, stage 1		
Bit14	- Zone4 Electrical heating, stage 2		
Bit15	- Zone4 Electrical heating, stage 3		
3x0011	Digital outputs (Word 3)	0-65535	0-1 for each bit or counted binary to a decimal number
Bit0	-		
Bit1	-		
Bit2	-		
Bit3	-		
Bit4	-		
Bit5	-		
Bit6	-		
Bit7	-		
Bit8	-		
Bit9	-		
Bit10	-		
Bit11	-		
Bit12	-		
Bit13	-		
Bit14	-		
Bit15	-		
3x0012	Digital outputs (Word 4)	0-65535	0-1 for each bit or counted binary to a decimal number
Bit0	-		
Bit1	-		
Bit2	-		
Bit3	-		
Bit4	-		
Bit5	-		
Bit6	-		
Bit7	-		
Bit8	- Alarm output, high (and low)		
Bit9	- Alarm output, low		
Bit10	-		
Bit11	-		
Bit12	-		
Bit13	-		
Bit14	-		
Bit15	-		

Input register, *continued*

Input register table, *cont.*

Address	Description	Values /Units	Remarks
3x0013	Alarms (Word 1)	0-65535	0-1 for each bit or counted binary to a decimal number
Bit0	- Zone1 Supply temperature		
Bit1	- Zone1 Room/ Exhaust temperature		
Bit2	- Zone1 Heating frost		
Bit3	- Zone1 External setpoint		
Bit4	- Zone1 Temperature deviation		
Bit5	- Zone1 Cooling		
Bit6	- Zone1 Heating		
Bit7	-		
Bit8	- Zone2 Supply temperature		
Bit9	- Zone2 Room/ Exhaust temperature		
Bit10	- Zone2 Heating frost		
Bit11	- Zone2 External setpoint		
Bit12	- Zone2 Temperature deviation		
Bit13	- Zone2 Cooling		
Bit14	- Zone2 Heating		
Bit15	-		
3x0014	Alarms (Word 2)	0-65535	0-1 for each bit or counted binary to a decimal number
Bit0	- Zone3 Supply temperature		
Bit1	- Zone3 Room/ Exhaust temperature		
Bit2	- Zone3 Heating frost		
Bit3	- Zone3 External setpoint		
Bit4	- Zone3 Temperature deviation		
Bit5	- Zone3 Cooling		
Bit6	- Zone3 Heating		
Bit7	-		
Bit8	- Zone4 Supply temperature		
Bit9	- Zone4 Room/ Exhaust temperature		
Bit10	- Zone4 Heating frost		
Bit11	- Zone4 External setpoint		
Bit12	- Zone4 Temperature deviation		
Bit13	- Zone4 Cooling		
Bit14	- Zone4 Heating		
Bit15	-		
3x0015	Alarms (Word 3)	0-65535	0-1 for each bit or counted binary to a decimal number
Bit0	-		
Bit1	-		
Bit2	-		
Bit3	-		
Bit4	-		
Bit5	-		
Bit6	-		
Bit7	-		
Bit8	-		
Bit9	-		
Bit10	-		
Bit11	-		
Bit12	-		
Bit13	-		
Bit14	-		
Bit15	-		

Input register, *continued*

Input register table, *cont.*

Address	Description	Values /Units	Remarks
3x0016	Alarms (Word 4)	0-65535	0-1 for each bit or counted binary to a decimal number
Bit0	- Outside air temperature		
Bit1	-		
Bit2	-		
Bit3	-		
Bit4	-		
Bit5	-		
Bit6	-		
Bit7	-		
Bit8	-		
Bit9	-		
Bit10	-		
Bit11	-		
Bit12	- Manual control		
Bit13	-		
Bit14	- Communication test		
Bit15	- Modbus master		

Input register, *continued*

Input register table, *cont.*

Address	Description	Values /Units	Remarks
	Present value (0 – x = Unsigned Word; -x - +x = Signed Word)		
3x0017	Zone1 Act operating mode 0=Off 1=Comfort 2=Economy 3=Na 4=Force heating 5=Force cooling 6=Na 7=Stop	0-7	
3x0018	Zone1 Cooling outp signal	0 - 100%	
3x0019	Zone1 Cooling pump cmd	0-1	Off*On
3x0020	Zone1 Cooling DX cmd	0-3	Off*Stage1*Stage2*Stage3
3x0021	Zone1 Heating outp signal	0 - 100%	
3x0022	Zone1 Htg pump cmd	0-1	Off*On
3x0023	Zone1 El htg outp signal	0 - 100%	
3x0024	Zone1 El heating cmd	0-3	Off*Stage1*Stage2*Stage3
3x0025	Zone1 Supply air temp	-x.y - +x.y °C	(factor 10)
3x0026	Zone1 Heating frost tmp	-x.y - +x.y °C	(factor 10)
3x0027	Zone1 Act room tmp	-x.y - +x.y °C	(factor 10)
3x0028	Zone1 Exhaust air temp	-x.y - +x.y °C	(factor 10)
3x0029	Zone1 External setpoint	-x.y - +x.y °C	(factor 10)
3x0030	Zone1 Act heating stpt, Main stpt (depending on act controlmode)	-x.y - +x.y °C	(factor 10)
3x0031	Zone1 Act cooling stpt, Main stpt (depending on act controlmode)	-x.y - +x.y °C	(factor 10)
3x0032	Zone1 Act supply heating stpt (when use of cascade control)	-x.y - +x.y °C	(factor 10)
3x0033	Zone1 Act supply cooling stpt (when use of cascade control)	-x.y - +x.y °C	(factor 10)
3x0034	Zone2 Act operating mode 0=Off 1=Comfort 2=Economy 3=Na 4=Force heating 5=Force cooling 6=Na 7=Stop	0-7	
3x0035	Zone2 Cooling outp signal	0 - 100%	
3x0036	Zone2 Cooling pump cmd	0-1	Off*On
3x0037	Zone2 Cooling DX cmd	0-3	Off*Stage1*Stage2*Stage3
3x0038	Zone2 Heating outp signal	0 - 100%	
3x0039	Zone2 Htg pump cmd	0-1	Off*On
3x0040	Zone2 El htg outp signal	0 - 100%	
3x0041	Zone2 El heating cmd	0-3	Off*Stage1*Stage2*Stage3
3x0042	Zone2 Supply air temp	-x.y - +x.y °C	(factor 10)
3x0043	Zone2 Heating frost tmp	-x.y - +x.y °C	(factor 10)
3x0044	Zone2 Act room tmp	-x.y - +x.y °C	(factor 10)
3x0045	Zone2 Exhaust air temp	-x.y - +x.y °C	(factor 10)
3x0046	Zone2 External setpoint	-x.y - +x.y °C	(factor 10)

Input register table, *cont.*

Address	Description	Values /Units	Remarks
3x0047	Zone2 Act heating stpt, Main stpt (depending on act controlmode)	-x.y - +x.y °C	(factor 10)
3x0048	Zone2 Act cooling stpt, Main stpt (depending on act controlmode)	-x.y - +x.y °C	(factor 10)
3x0049	Zone2 Act supply heating stpt (when use of cascade control)	-x.y - +x.y °C	(factor 10)
3x0050	Zone2 Act supply cooling stpt (when use of cascade control)	-x.y - +x.y °C	(factor 10)
3x0051	Zone3 Act operating mode 0=Off 1=Comfort 2=Economy 3=Na 4=Force heating 5=Force cooling 6=Na 7=Stop	0-7	
3x0052	Zone3 Cooling outp signal	0 - 100%	
3x0053	Zone3 Cooling pump cmd	0-1	Off*On
3x0054	Zone3 Cooling DX cmd	0-3	Off*Stage1*Stage2*Stage3
3x0055	Zone3 Heating outp signal	0 - 100%	
	Zone3 Htg pump cmd	0-1	Off*On
3x0057	Zone3 El htg outp signal	0 - 100%	
3x0058	Zone3 El heating cmd	0-3	Off*Stage1*Stage2*Stage3
3x0059	Zone3 Supply air temp	-x.y - +x.y °C	(factor 10)
3x0060	Zone3 Heating frost tmp	-x.y - +x.y °C	(factor 10)
3x0061	Zone3 Act room tmp	-x.y - +x.y °C	(factor 10)
3x0062	Zone3 Exhaust air temp	-x.y - +x.y °C	(factor 10)
	Zone3 External setpoint	-x.y - +x.y °C	(factor 10)
3x0064	Zone3 Act heating stpt, Main stpt (depending on act controlmode)	-x.y - +x.y °C	(factor 10)
3x0065	Zone3 Act cooling stpt, Main stpt (depending on act controlmode)	-x.y - +x.y °C	(factor 10)
3x0066	Zone3 Act supply heating stpt (when use of cascade control)	-x.y - +x.y °C	(factor 10)
3x0067	Zone3 Act supply cooling stpt (when use of cascade control)	-x.y - +x.y °C	(factor 10)
3x0068	Zone4 Act operating mode 0=Off 1=Comfort 2=Economy 3=Na 4=Force heating 5=Force cooling 6=Na 7=Stop	0-7	
3x0069	Zone4 Cooling outp signal	0 - 100%	
3x0070	Zone4 Cooling pump cmd	0-1	Off*On
3x0071	Zone4 Cooling DX cmd	0-3	Off*Stage1*Stage2*Stage3

Input register table, *cont.*

Address	Description	Values /Units	Remarks
3x0072	Zone4 Heating outp signal	0 - 100%	
3x0073	Zone4 Htg pump cmd	0-1	Off*On
3x0074	Zone4 El htg outp signal	0 - 100%	
3x0075	Zone4 El heating cmd	0-3	Off*Stage1*Stage2*Stage3
3x0076	Zone4 Supply air temp	-x.y - +x.y °C	(factor 10)
3x0077	Zone4 Heating frost tmp	-x.y - +x.y °C	(factor 10)
3x0078	Zone4 Act room tmp	-x.y - +x.y °C	(factor 10)
3x0079	Zone4 Exhaust air temp	-x.y - +x.y °C	(factor 10)
3x0080	Zone4 External setpoint	-x.y - +x.y °C	(factor 10)
3x0081	Zone4 Act heating stpt, Main stpt (depending on act controlmode)	-x.y - +x.y °C	(factor 10)
3x0082	Zone4 Act cooling stpt, Main stpt (depending on act controlmode)	-x.y - +x.y °C	(factor 10)
	Zone4 Act supply heating stpt (when use of cascade control)	-x.y - +x.y °C	(factor 10)
3x0084	Zone4 Act supply cooling stpt (when use of cascade control)	-x.y - +x.y °C	(factor 10)
3x0117	Alarm output 1	0-1	Normal*Alarm
3x0118	Alarm output 2	0-1	Normal*Alarm
3x0119	Outside air temp	-x.y - +x.y °C	(factor 10)
3x0120	Energy act power	W	(factor 10)
3x0121	Energy ave power	W	(factor 10)
3x0122	Energy ophours	h	(factor 10)
3x0123	Energy partial	kWh	(factor 10)
3x0124	Energy total	kWh	(factor 10)

3.5 Holding register

Holding register table

Address	Description	Values /Units	Remarks
	Unsigned Word		
4x0001	Control bits	0-65535	
Bit0	- Emergency stop input		I/O
Bit1	-		
Bit2	-		
Bit3	- Su/Wi changover input		I/O
Bit4	-		
Bit5	-		
Bit6	-		
Bit7	- Fire alarm input		I/O
Bit8	- Zone1 External control input		I/O
Bit9	- Zone2 External control input		I/O
Bit10	- Zone3 External control input		I/O
Bit11	- Zone4 External control input		I/O
Bit12	-		
Bit13	-		
Bit14	-		
Bit15	- Communication testpuls		
	Present value (0 – x = Unsigned Word; -x - +x = Signed Word)		
4x0010	Zone1 BMS control	0-2	Auto*Off*Comfort
4x0011	Zone1 Operation mode manual	0-2	Auto*Off*Comfort
4x0012	Zone1 Comfort temp stpt	-x.y - +x.y °C	(factor 10)
4x0013	Zone1 Comfort temp deadzone	-x.y - +x.y °C	(factor 10)
4x0014	Zone1 Su/wi supply comp	-x.y - +x.y °C	(factor 10)
4x0015	Zone1 Supply temp min stpt (Pure room/exhaust control)	-x.y - +x.y °C	(factor 10)
4x0016	Zone1 Supply temp max stpt (Pure room/exhaust control)	-x.y - +x.y °C	(factor 10)
4x0017	Zone1 Supply temp min stpt (Cascade room/exhaust control)	-x.y - +x.y °C	(factor 10) Low limit
4x0018	Zone1 Supply temp max stpt (Cascade room/exhaust control)	-x.y - +x.y °C	(factor 10) High limit
4x0020	Zone2 BMS control	0-2	Auto*Off*Comfort
4x0021	Zone2 Operation mode manual	0-2	Auto*Off*Comfort
4x0022	Zone2 Comfort temp stpt	-x.y - +x.y °C	(factor 10)
4x0023	Zone2 Comfort temp deadzone	-x.y - +x.y °C	(factor 10)
4x0024	Zone2 Su/wi supply comp	-x.y - +x.y °C	(factor 10)
4x0025	Zone2 Supply temp min stpt (Pure room/exhaust control)	-x.y - +x.y °C	(factor 10)
4x0026	Zone2 Supply temp max stpt (Pure room/exhaust control)	-x.y - +x.y °C	(factor 10)
4x0027	Zone2 Supply temp min stpt (Cascade room/exhaust control)	-x.y - +x.y °C	(factor 10) Low limit
4x0028	Zone2 Supply temp max stpt (Cascade room/exhaust control)	-x.y - +x.y °C	(factor 10) High limit
4x0030	Zone3 BMS control	0-2	Auto*Off*Comfort
4x0031	Zone3 Operation mode manual	0-2	Auto*Off*Comfort
4x0032	Zone3 Comfort temp stpt	-x.y - +x.y °C	(factor 10)
4x0033	Zone3 Comfort temp deadzone	-x.y - +x.y °C	(factor 10)
4x0034	Zone3 Su/wi supply comp	-x.y - +x.y °C	(factor 10)
4x0035	Zone3 Supply temp min stpt (Pure room/exhaust control)	-x.y - +x.y °C	(factor 10)
4x0036	Zone3 Supply temp max stpt (Pure room/exhaust control)	-x.y - +x.y °C	(factor 10)
4x0037	Zone3 Supply temp min stpt (Cascade room/exhaust control)	-x.y - +x.y °C	(factor 10) Low limit
4x0038	Zone3 Supply temp max stpt (Cascade room/exhaust control)	-x.y - +x.y °C	(factor 10) High limit

Holding register, *continued*

Holding register table, *cont.*

Address	Description	Values /Units	Remarks
4x0040	Zone4 BMS control	0-2	Auto*Off*Comfort
4x0041	Zone4 Operation mode manual	0-2	Auto*Off*Comfort
4x0042	Zone4 Comfort temp stpt	-x.y - +x.y °C	(factor 10)
4x0043	Zone4 Comfort temp deadzone	-x.y - +x.y °C	(factor 10)
4x0044	Zone4 Su/wi supply comp	-x.y - +x.y °C	(factor 10)
4x0045	Zone4 Supply temp min stpt (Pure room/exhaust control)	-x.y - +x.y °C	(factor 10)
4x0046	Zone4 Supply temp max stpt (Pure room/exhaust control)	-x.y - +x.y °C	(factor 10)
4x0047	Zone4 Supply temp min stpt (Cascade room/exhaust control)	-x.y - +x.y °C	(factor 10) Low limit
4x0048	Zone4 Supply temp max stpt (Cascade room/exhaust control)	-x.y - +x.y °C	(factor 10) High limit
4x0090	Outside air temp	-x.y - +x.y °C	(factor 10)

Holding register table, *cont.*

Address	Description	Values /Units	Remarks
	Only for Module, Onboard not supported		
4x0130	Zone1 Draught clg max dev	x.y - +x.y °C	(factor 10)
4x0131	Zone1 Draught htg max dev	x.y - +x.y °C	(factor 10)
4x0132	Zone1 Clg disbl outs tmp	-x.y - +x.y °C	(factor 10)
4x0133	Zone1 Htg frost stpt	-x.y - +x.y °C	(factor 10)
4x0134	Zone1 Standby stpt htg	-x.y - +x.y °C	(factor 10)
4x0135	Zone1 Pre htg outs tmp X1	-x.y - +x.y °C	(factor 10)
4x0136	Zone1 Pre htg outs tmp X2	-x.y - +x.y °C	(factor 10)
4x0137	Zone1 Pre htg pos Y1	0 - 100%	
4x0138	Zone1 Pre htg pos Y2	0 - 100%	
4x0139	Zone1 Max dev sply tmp	x.y - +x.y °C	(factor 10)
4x0140	Zone1 Max dev room tmp	x.y - +x.y °C	(factor 10)
4x0141	Zone2 Draught clg max dev	x.y - +x.y °C	(factor 10)
4x0142	Zone2 Draught htg max dev	x.y - +x.y °C	(factor 10)
4x0143	Zone2 Clg disbl outs tmp	-x.y - +x.y °C	(factor 10)
4x0144	Zone2 Htg frost stpt	-x.y - +x.y °C	(factor 10)
4x0145	Zone2 Standby stpt htg	-x.y - +x.y °C	(factor 10)
4x0146	Zone2 Pre htg outs tmp X1	-x.y - +x.y °C	(factor 10)
4x0147	Zone2 Pre htg outs tmp X2	-x.y - +x.y °C	(factor 10)
4x0148	Zone2 Pre htg pos Y1	0 - 100%	
4x0149	Zone2 Pre htg pos Y2	0 - 100%	
4x0150	Zone2 Max dev sply tmp	x.y - +x.y °C	(factor 10)
4x0151	Zone2 Max dev room tmp	x.y - +x.y °C	(factor 10)
4x0152	Zone3 Draught clg max dev	x.y - +x.y °C	(factor 10)
4x0153	Zone3 Draught htg max dev	x.y - +x.y °C	(factor 10)
4x0154	Zone3 Clg disbl outs tmp	-x.y - +x.y °C	(factor 10)
4x0155	Zone3 Htg frost stpt	-x.y - +x.y °C	(factor 10)
4x0156	Zone3 Standby stpt htg	-x.y - +x.y °C	(factor 10)
4x0157	Zone3 Pre htg outs tmp X1	-x.y - +x.y °C	(factor 10)
4x0158	Zone3 Pre htg outs tmp X2	-x.y - +x.y °C	(factor 10)
4x0159	Zone3 Pre htg pos Y1	0 - 100%	
4x0160	Zone3 Pre htg pos Y2	0 - 100%	
4x0161	Zone3 Max dev sply tmp	x.y - +x.y °C	(factor 10)
4x0162	Zone3 Max dev room tmp	x.y - +x.y °C	(factor 10)
4x0163	Zone4 Draught clg max dev	x.y - +x.y °C	(factor 10)
4x0164	Zone4 Draught htg max dev	x.y - +x.y °C	(factor 10)
4x0165	Zone4 Clg disbl outs tmp	-x.y - +x.y °C	(factor 10)
4x0166	Zone4 Htg frost stpt	-x.y - +x.y °C	(factor 10)
4x0167	Zone4 Standby stpt htg	-x.y - +x.y °C	(factor 10)
4x0168	Zone4 Pre htg outs tmp X1	-x.y - +x.y °C	(factor 10)
4x0169	Zone4 Pre htg outs tmp X2	-x.y - +x.y °C	(factor 10)
4x0170	Zone4 Pre htg pos Y1	0 - 100%	
4x0171	Zone4 Pre htg pos Y2	0 - 100%	
4x0172	Zone4 Max dev sply tmp	x.y - +x.y °C	(factor 10)
4x0173	Zone4 Max dev room tmp	x.y - +x.y °C	(factor 10)

Holding register, *continued*

Holding register table, *cont.*

Address	Description	Values /Units	Remarks
	Only for Module, Onboard not supported		
4x0201	Zone1 Cooling cntrl Gain	-x.yy - +x.yy	(factor 100)
4x0202	Zone1 Cooling cntrl Integral	0 - x sec	
4x0203	Zone1 Cooling cntrl Differential	0 - x sec	
4x0204	Zone1 Heating cntrl Gain	-x.yy - +x.yy	(factor 100)
4x0205	Zone1 Heating cntrl Integral	0 - x sec	
4x0206	Zone1 Heating cntrl Differential	0 - x sec	
4x0207	Zone1 Htg frost cntrl Gain	-x.yy - +x.yy	(factor 100)
4x0208	Zone1 Htg frost cntrl Integral	0 - x sec	
4x0209	Zone1 Htg frost cntrl Differential	0 - x sec	
4x0210	Zone1 El Heating cntrl Gain	-x.yy - +x.yy	(factor 100)
4x0211	Zone1 El Heating cntrl Integral	0 - x sec	
4x0212	Zone1 El Heating cntrl Diff.	0 - x sec	
4x0213	Zone1 Min supply cntrl Gain	-x.yy - +x.yy	(factor 100)
4x0214	Zone1 Min supply cntrl Int.	0 - x sec	
4x0215	Zone1 Min supply cntrl Diff.	0 - x sec	
4x0216	Zone1 Max supply cntrl Gain	-x.yy - +x.yy	(factor 100)
4x0217	Zone1 Max supply cntrl Int.	0 - x sec	
4x0218	Zone1 Max supply cntrl Diff.	0 - x sec	
4x0219	Zone1 Casc ade cntrl Gain	-x.yy - +x.yy	(factor 100)
4x0220	Zone1 Casc ade cntrl tmp Int.	0 - x sec	
4x0222	Zone2 Cooling cntrl Gain	-x.yy - +x.yy	(factor 100)
4x0223	Zone2 Cooling cntrl Integral	0 - x sec	
4x0224	Zone2 Cooling cntrl Differential	0 - x sec	
4x0225	Zone2 Heating cntrl Gain	-x.yy - +x.yy	(factor 100)
4x0226	Zone2 Heating cntrl Integral	0 - x sec	
4x0227	Zone2 Heating cntrl Differential	0 - x sec	
4x0228	Zone2 Htg frost cntrl Gain	-x.yy - +x.yy	(factor 100)
4x0229	Zone2 Htg frost cntrl Integral	0 - x sec	
4x0230	Zone2 Htg frost cntrl Differential	0 - x sec	
4x0231	Zone2 El Heating cntrl Gain	-x.yy - +x.yy	(factor 100)
4x0232	Zone2 El Heating cntrl Integral	0 - x sec	
4x0233	Zone2 El Heating cntrl Diff.	0 - x sec	
4x0234	Zone2 Min supply cntrl Gain	-x.yy - +x.yy	(factor 100)
4x0235	Zone2 Min supply cntrl Int.	0 - x sec	
4x0236	Zone2 Min supply cntrl Diff.	0 - x sec	
4x0237	Zone2 Max supply cntrl Gain	-x.yy - +x.yy	(factor 100)
4x0238	Zone2 Max supply cntrl Int.	0 - x sec	
4x0239	Zone2 Max supply cntrl Diff.	0 - x sec	
4x0240	Zone2 Casc ade cntrl Gain	-x.yy - +x.yy	(factor 100)
4x0241	Zone2 Casc ade cntrl tmp Int.	0 - x sec	

Holding register table, *cont.*

Address	Description	Values /Units	Remarks
	Only for Module, Onboard not supported		
4x0243	Zone3 Cooling cntrl Gain	-x.yy - +x.yy	(factor 100)
4x0244	Zone3 Cooling cntrl Integral	0 - x sec	
4x0245	Zone3 Cooling cntrl Differential	0 - x sec	
4x0246	Zone3 Heating cntrl Gain	-x.yy - +x.yy	(factor 100)
4x0247	Zone3 Heating cntrl Integral	0 - x sec	
4x0248	Zone3 Heating cntrl Differential	0 - x sec	
4x0249	Zone3 Htg frost cntrl Gain	-x.yy - +x.yy	(factor 100)
4x0250	Zone3 Htg frost cntrl Integral	0 - x sec	
4x0251	Zone3 Htg frost cntrl Differential	0 - x sec	
4x0252	Zone3 El Heating cntrl Gain	-x.yy - +x.yy	(factor 100)
4x0253	Zone3 El Heating cntrl Integral	0 - x sec	
4x0254	Zone3 El Heating cntrl Diff.	0 - x sec	
4x0255	Zone3 Min supply cntrl Gain	-x.yy - +x.yy	(factor 100)
4x0256	Zone3 Min supply cntrl Int.	0 - x sec	
4x0257	Zone3 Min supply cntrl Diff.	0 - x sec	
4x0258	Zone3 Max supply cntrl Gain	-x.yy - +x.yy	(factor 100)
4x0259	Zone3 Max supply cntrl Int.	0 - x sec	
4x0260	Zone3 Max supply cntrl Diff.	0 - x sec	
4x0261	Zone3 Casc ade cntrl Gain	-x.yy - +x.yy	(factor 100)
4x0262	Zone3 Casc ade cntrl tmp Int.	0 - x sec	
4x0264	Zone4 Cooling cntrl Gain	-x.yy - +x.yy	(factor 100)
4x0265	Zone4 Cooling cntrl Integral	0 - x sec	
4x0266	Zone4 Cooling cntrl Differential	0 - x sec	
4x0267	Zone4 Heating cntrl Gain	-x.yy - +x.yy	(factor 100)
4x0268	Zone4 Heating cntrl Integral	0 - x sec	
4x0269	Zone4 Heating cntrl Differential	0 - x sec	
4x0270	Zone4 Htg frost cntrl Gain	-x.yy - +x.yy	(factor 100)
4x0271	Zone4 Htg frost cntrl Integral	0 - x sec	
4x0272	Zone4 Htg frost cntrl Differential	0 - x sec	
4x0273	Zone4 El Heating cntrl Gain	-x.yy - +x.yy	(factor 100)
4x0274	Zone4 El Heating cntrl Integral	0 - x sec	
4x0275	Zone4 El Heating cntrl Diff.	0 - x sec	
4x0276	Zone4 Min supply cntrl Gain	-x.yy - +x.yy	(factor 100)
4x0277	Zone4 Min supply cntrl Int.	0 - x sec	
4x0278	Zone4 Min supply cntrl Diff.	0 - x sec	
4x0279	Zone4 Max supply cntrl Gain	-x.yy - +x.yy	(factor 100)
4x0280	Zone4 Max supply cntrl Int.	0 - x sec	
4x0281	Zone4 Max supply cntrl Diff.	0 - x sec	
4x0282	Zone4 Casc ade cntrl Gain	-x.yy - +x.yy	(factor 100)
4x0283	Zone4 Casc ade cntrl tmp Int.	0 - x sec	

Blank page

Index

Siemens Switzerland Ltd.
Building Technologies Group
International Headquarters
Gubelstrasse 22
CH-6301 Zug
Tel. +41 41-724 24 24
Fax +41 41-724 35 22
www.siemens.com/sbt