



Modbus, Modbus/TCP

Meusburger Deutschland GmbH
Voltastrasse 2
68519 Viernheim
Germany
Phone +49 6204 6069 0
www.meusburger.com
office-de@meusburger.com

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
	81	System Flag 1		CP10	A-OP	SF Auto Operational Mode CANopen	0	1	on	oFF, on	1		RW
	82	System Flag 1		CP13	DPEA	SF DPEA Protocol	0	1	oFF	oFF, on	1		RW
	84	System Flag 1		SP01	CELS	SF Temperature Unit (°C/°F)	0	1	1	0 - °F 1 - °C	1	°C/°F	RW
	85	System Flag 1		CP30	SR	SF Send/Receive Interface Active	0	1	0		1		RW
	86	System Flag 1		SP21	POT	SF Identification of Potential on Sensor Input	0	1	0		1		RW
141				CP01	SADR	Software Base Address	0	255	0		1		RW
142				CP02	PROT	Protocol of Serial Interface	0	2	0	0 - PSG (PSG-II) 1 - rtu (Modbus) 2 - HRS (PSG-II with interlocking of start)	1		RW
143				CP03	BAUD	Baud Rate of Serial Interface	0	4	0	0 - 1200 1 - 2400 2 - 4800 3 - 9600 4 - 19200	1		RW
144				CP04	STOP	Number of Stop Bits of Serial Interface	0	1	1	0 - 1 Stop bit 1 - 2 Stop bits	1		RW
145				CP05	PARI	Parity of Serial interface	0	2	0	0 - oFF 1 - Even 2 - Odd	1		RW
146				CP06	MADR	MODBUS Base Address	1	255	1		1		RW
147				CP07	CADR	Base NodeID	0	127	0		1		RW
148				CP08	CBD1	CAN Baud Rate 1	0	6	0	0 - 78 1 - 100 2 - 125 3 - 250 4 - 500 5 - 800 6 - 1000	1		RW
149				CP09	CBD2	CAN Baud Rate 2	0	6	0	0 - 78 1 - 100 2 - 125 3 - 250 4 - 500 5 - 800 6 - 1000	1		RW
150				CP11	CANT	Timeout CAN (Zone OFF)	0	120	0		1	ms	RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
151				CP12	DPAD	Profibus DP Base Slave Address	0	255	30		1		RW
152				CP14	DP-T	Timeout DP(Zone OFF)	0	120	0		1	s	RW
153				CP18	IP1	IP Address 1. Octet	0	255	0		1		RW
154				CP19	IP2	IP Address 2. Octet	0	255	0		1		RW
155				CP20	IP3	IP Address 3. Octet	0	255	0		1		RW
156				CP21	IP4	IP Address 4. Octet	0	255	0		1		RW
157				CP22	SUB1	Subnet Mask 1	0	255	0		1		RW
158				CP23	SUB2	Subnet Mask 2	0	255	0		1		RW
159				CP24	SUB3	Subnet Mask 3	0	255	0		1		RW
160				CP25	SUB4	Subnet Mask 4	0	255	0		1		RW
161				CP15	PRT1	Port 1	0	9999	0		1		RW
162				CP16	PRT2	Port 2	0	9999	0		1		RW
163				CP17	PRT3	Port 3	0	9999	0		1		RW
165				SP02	AMPD	Heating Current Measurement Method	0	3	1	0 - Current measurement passive 1 - Display of active current 2 - Display of current with switched on heating 3 - Display of current with switched off heating	1		RW
166		Modbus, Modbus/TCP		SP03	MAXK	Maximum Number of Channels	0	128	128		1		RW
167				SP04	LVA1	Release Limit Value 1	0	19999	0		10	°C/°F	RW
168				SP05	LVA2	Release Limit Value 2	0	19999	0		10	°C/°F	RW
169				SP06	LVA3	Release Limit Value 3	0	19999	0		10	°C/°F	RW
170				SP07	LVA4	Release Limit Value 4	0	19999	0		10	°C/°F	RW
171				SP08	GAP	Tolerance Band for Automatic Ramp	10	255	200		10	°C/°F	RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
172				SP09	IN1S	Function Digital Input 1 System	0	255	0	0 - Without function 1 - Absolute reduction to 2. setpoint value 2 - Absolute reduction to 3. setpoint value 3 - Absolute reduction to 4. setpoint value 4 - Relative reduction by 2. setpoint value 5 - Relative reduction by 3. setpoint value 6 - Relative reduction by 4. setpoint value 7 - Relative increase by 2. setpoint value 8 - Relative increase by 3. setpoint value 9 - Relative increase by 4. setpoint value 10 - Percentage reduction/increase by 2. setpoint value 11 - Percentage reduction/increase by 3. setpoint value 12 - Percentage reduction/increase by 4. setpoint value 13 - Absolute reduction to 2. setpoint value, if $2SV < SV$ 14 - Absolute reduction to 3. setpoint value, if $3SV < SV$ 15 - Absolute reduction to 4. setpoint value, if $4SV < SV$ 16 - Disconnect actuator 17 - Passivate zone 18 - Activate input block 19 - Reset-acknowledge zone alarms	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
172				SP09	IN1S	Function Digital Input 1 System	0	255	0	20 - Reset-acknowledge all alarms 21 - Output degree of operation of 100% for 10 sec 22 - Bypass group release 23 - Switch to 2. control parameter set 24 - Set I channel in controller to 0 25 - Start timer 1 26 - Start timer 2 27 - Start timer 3 28 - Start timer 4 29 - Switch to 2. control parameter set / actual value of control = measured value 2 30 - Deactivate Smart Power Limitation (SPL) 31 - Activate process monitoring 32 - Start learning phase of process monitoring 33 - Degree of operation absolute reduction to 2. setpoint value 34 - Degree of operation absolute reduction to 3. setpoint value 35 - Degree of operation absolute reduction to 4. setpoint value 36 - Degree of operation relative reduction by 2. setpoint value 37 - Degree of operation relative reduction by 3. setpoint value 38 - Degree of operation relative reduction by 4. setpoint value 39 - Degree of operation relative increase by 2. setpoint value	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
172				SP09	IN1S	Function Digital Input 1 System	0	255	0	40 - Degree of operation relative increase by 3. setpoint value 41 - Degree of operation relative increase by 4. setpoint value 42 - Cancel Heating limitation of degree of operation for zones in control mode 43 - Absolute reduction to 2. setpoint value without cooling (energy saving option) 44 - Relative reduction to 2. setpoint value without cooling (energy saving option) 45-128 - <n.a.> 129 - Absolute reduction to 2. setpoint value (inverted) 130 - Absolute reduction to 3. setpoint value (inverted) 131 - Absolute reduction to 4. setpoint value (inverted) 132 - Relative reduction by 2. setpoint value (inverted) 133 - Relative reduction by 3. setpoint value (inverted) 134 - Relative reduction by 4. setpoint value (inverted) 135 - Relative increase by 2. setpoint value (inverted) 136 - Relative increase by 3. setpoint value (inverted) 137 - Relative increase by 4. setpoint value (inverted) 138 - Percentage reduction/increase by 2. setpoint value (inverted)	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
172				SP09	IN1S	Function Digital Input 1 System	0	255	0	140 - Percentage reduction/increase by 4. setpoint value (inverted) 141 - Absolute reduction to 2. setpoint value, if 2SV<SV (inverted) 142 - Absolute reduction to 3. setpoint value, if 3SV<SV (inverted) 143 - Absolute reduction to 4. setpoint value, if 4SV<SV (inverted) 144 - Disconnect actuator (inverted) 145 - Passivate zone (inverted) 146 - Activate input block (inverted) 147 - Reset-acknowledge zone alarms (inverted) 148 - Reset-acknowledge all alarms (inverted) 149 - Degree of operation of boost (100%) of 10 sec (inverted) 150 - Bypass group release (inverted) 151 - Switch to 2. control parameter set (inverted) 152 - Set I channel in controller to 0 (inverted) 153 - Start timer 1 (inverted) 154 - Start timer 2 (inverted) 155 - Start timer 3 (inverted) 156 - Start timer 4 (inverted)	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
172				SP09	IN1S	Function Digital Input 1 System	0	255	0	157 - Switch to 2. control parameter set / actual value of control = measured value 2 (inverted) 158 - Deactivate Smart Power Limitation (SPL) (inverted) 159 - Activate process monitoring (inverted) 160 - Start learning phase of process monitoring (inverted) 161 - Degree of operation absolute reduction to 2. setpoint value (inverted) 162 - Degree of operation absolute reduction to 3. setpoint value (inverted) 163 - Degree of operation absolute reduction to 4. setpoint value (inverted) 164 - Degree of operation relative reduction by 2. setpoint value (inverted) 165 - Degree of operation relative reduction by 3. setpoint value (inverted) 166 - Degree of operation relative reduction by 4. setpoint value (inverted) 167 - Degree of operation relative increase by 2. setpoint value (inverted) 168 - Degree of operation relative increase by 3. setpoint value (inverted) 169 - Degree of operation relative increase by 4. setpoint value (inverted)	1		RW
172				SP09	IN1S	Function Digital Input 1 System	0	255	0	170 - Cancel Heating limitation of degree of operation for zones in control mode (inverted) 171 - Absolute reduction to 2. setpoint value without cooling (energy saving option) (inverted) 172 - Relative reduction to 2. setpoint value without cooling (energy saving option) (inverted) 173-255 <n.a.>	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
173				SP10	IN2S	Function Digital Input 2 System	0	255	0	0 - Without function 1 - Absolute reduction to 2. setpoint value 2 - Absolute reduction to 3. setpoint value 3 - Absolute reduction to 4. setpoint value 4 - Relative reduction by 2. setpoint value 5 - Relative reduction by 3. setpoint value 6 - Relative reduction by 4. setpoint value 7 - Relative increase by 2. setpoint value 8 - Relative increase by 3. setpoint value 9 - Relative increase by 4. setpoint value 10 - Percentage reduction/increase by 2. setpoint value 11 - Percentage reduction/increase by 3. setpoint value 12 - Percentage reduction/increase by 4. setpoint value 13 - Absolute reduction to 2. setpoint value, if $2SV < SV$ 14 - Absolute reduction to 3. setpoint value, if $3SV < SV$ 15 - Absolute reduction to 4. setpoint value, if $4SV < SV$ 16 - Disconnect actuator 17 - Passivate zone 18 - Activate input block 19 - Reset-acknowledge zone alarms	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
173				SP10	IN2S	Function Digital Input 2 System	0	255	0	20 - Reset-acknowledge all alarms 21 - Output degree of operation of 100% for 10 sec 22 - Bypass group release 23 - Switch to 2. control parameter set 24 - Set I channel in controller to 0 25 - Start timer 1 26 - Start timer 2 27 - Start timer 3 28 - Start timer 4 29 - Switch to 2. control parameter set / actual value of control = measured value 2 30 - Deactivate Smart Power Limitation (SPL) 31 - Activate process monitoring 32 - Start learning phase of process monitoring 33 - Degree of operation absolute reduction to 2. setpoint value 34 - Degree of operation absolute reduction to 3. setpoint value 35 - Degree of operation absolute reduction to 4. setpoint value 36 - Degree of operation relative reduction by 2. setpoint value 37 - Degree of operation relative reduction by 3. setpoint value 38 - Degree of operation relative reduction by 4. setpoint value 39 - Degree of operation relative increase by 2. setpoint value	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
173				SP10	IN2S	Function Digital Input 2 System	0	255	0	40 - Degree of operation relative increase by 3. setpoint value 41 - Degree of operation relative increase by 4. setpoint value 42 - Cancel Heating limitation of degree of operation for zones in control mode 43 - Absolute reduction to 2. setpoint value without cooling (energy saving option) 44 - Relative reduction to 2. setpoint value without cooling (energy saving option) 45-128 - <n.a.> 129 - Absolute reduction to 2. setpoint value (inverted) 130 - Absolute reduction to 3. setpoint value (inverted) 131 - Absolute reduction to 4. setpoint value (inverted) 132 - Relative reduction by 2. setpoint value (inverted) 133 - Relative reduction by 3. setpoint value (inverted) 134 - Relative reduction by 4. setpoint value (inverted) 135 - Relative increase by 2. setpoint value (inverted) 136 - Relative increase by 3. setpoint value (inverted) 137 - Relative increase by 4. setpoint value (inverted) 138 - Percentage reduction/increase by 2. setpoint value (inverted)	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
173				SP10	IN2S	Function Digital Input 2 System	0	255	0	140 - Percentage reduction/increase by 4. setpoint value (inverted) 141 - Absolute reduction to 2. setpoint value, if 2SV<SV (inverted) 142 - Absolute reduction to 3. setpoint value, if 3SV<SV (inverted) 143 - Absolute reduction to 4. setpoint value, if 4SV<SV (inverted) 144 - Disconnect actuator (inverted) 145 - Passivate zone (inverted) 146 - Activate input block (inverted) 147 - Reset-acknowledge zone alarms (inverted) 148 - Reset-acknowledge all alarms (inverted) 149 - Degree of operation of boost (100%) of 10 sec (inverted) 150 - Bypass group release (inverted) 151 - Switch to 2. control parameter set (inverted) 152 - Set I channel in controller to 0 (inverted) 153 - Start timer 1 (inverted) 154 - Start timer 2 (inverted) 155 - Start timer 3 (inverted) 156 - Start timer 4 (inverted)	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
173				SP10	IN2S	Function Digital Input 2 System	0	255	0	157 - Switch to 2. control parameter set / actual value of control = measured value 2 (inverted) 158 - Deactivate Smart Power Limitation (SPL) (inverted) 159 - Activate process monitoring (inverted) 160 - Start learning phase of process monitoring (inverted) 161 - Degree of operation absolute reduction to 2. setpoint value (inverted) 162 - Degree of operation absolute reduction to 3. setpoint value (inverted) 163 - Degree of operation absolute reduction to 4. setpoint value (inverted) 164 - Degree of operation relative reduction by 2. setpoint value (inverted) 165 - Degree of operation relative reduction by 3. setpoint value (inverted) 166 - Degree of operation relative reduction by 4. setpoint value (inverted) 167 - Degree of operation relative increase by 2. setpoint value (inverted) 168 - Degree of operation relative increase by 3. setpoint value (inverted) 169 - Degree of operation relative increase by 4. setpoint value (inverted)	1		RW
173				SP10	IN2S	Function Digital Input 2 System	0	255	0	170 - Cancel Heating limitation of degree of operation for zones in control mode (inverted) 171 - Absolute reduction to 2. setpoint value without cooling (energy saving option) (inverted) 172 - Relative reduction to 2. setpoint value without cooling (energy saving option) (inverted) 173-255 <n.a.>	1		RW
174				SP11	S1D1	Definition Byte 1 - System Alarm 1	0	255	0x01	0x01 - Thyristor alarm (I-) 0x02 - Current tolerance alarm (CtA) 0x04 - LI1 (storing by LI1D) 0x08 - LI2 (storing by LI2D) 0x10 - LI3 (storing by LI3D) 0x20 - LI4 (storing by LI4D) 0x40 - LI5 (storing by LI5D) 0x80 - LI6 (storing by LI6D)	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
175				SP12	S1D2	Definition Byte 2 - System Alarm 1	0	255	0x01	0x01 - Sensor alarm (SAL) (always storing) 0x02 - Sensor break (tCb)/sensor incorrect polarity (tCp)/ sensor 1 (not storing) 0x04 - Sensor break (tCb)/sensor incorrect polarity (tCp)/ sensor 2 (not storing) 0x08 - Heat sink temperature alarm 0x10 - <n.a.> 0x20 - Project setup or control zone not started 0x40 - System-/Channel data error 0x80 - Error CAN / Slave error	1		RW
176				SP13	S2D1	Definition Byte 1 - System Alarm 2	0	255	0x01	0x01 - Thyristor alarm (I-) 0x02 - Current tolerance alarm (CtA) 0x04 - LI1 (storing by LI1D) 0x08 - LI2 (storing by LI2D) 0x10 - LI3 (storing by LI3D) 0x20 - LI4 (storing by LI4D) 0x40 - LI5 (storing by LI5D) 0x80 - LI6 (storing by LI6D)	1		RW
177				SP14	S2D2	Definition Byte 2 - System Alarm 2	0	255	0x01	0x01 - Sensor alarm (SAL) (always storing) 0x02 - Sensor break (tCb)/sensor incorrect polarity (tCp)/ sensor 1 (not storing) 0x04 - Sensor break (tCb)/sensor incorrect polarity (tCp)/ sensor 2 (not storing) 0x08 - Heat sink temperature alarm 0x10 - <n.a.> 0x20 - Project setup or control zone not started 0x40 - System-/Channel data error 0x80 - Error CAN / Slave error	1		RW
178				SP15	S3D1	Definition Byte 1 - System Alarm 3	0	255	0x01	0x01 - Thyristor alarm (I-) 0x02 - Current tolerance alarm (CtA) 0x04 - LI1 (storing by LI1D) 0x08 - LI2 (storing by LI2D) 0x10 - LI3 (storing by LI3D) 0x20 - LI4 (storing by LI4D) 0x40 - LI5 (storing by LI5D) 0x80 - LI6 (storing by LI6D)	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
179				SP16	S3D2	Definition Byte 2 - System Alarm 3	0	255	0x01	0x01 - Sensor alarm (SAL) (always storing) 0x02 - Sensor break (tCb)/sensor incorrect polarity (tCp)/ sensor 1 (not storing) 0x04 - Sensor break (tCb)/sensor incorrect polarity (tCp)/ sensor 2 (not storing) 0x08 - Heat sink temperature alarm 0x10 - <n.a.> 0x20 - Project setup or control zone not started 0x40 - System-/Channel data error 0x80 - Error CAN / Slave error	1		RW
180				SP17	S4D1	Definition Byte 1 - System Alarm 4	0	255	0x01	0x01 - Thyristor alarm (I-) 0x02 - Current tolerance alarm (CtA) 0x04 - LI1 (storing by LI1D) 0x08 - LI2 (storing by LI2D) 0x10 - LI3 (storing by LI3D) 0x20 - LI4 (storing by LI4D) 0x40 - LI5 (storing by LI5D) 0x80 - LI6 (storing by LI6D)	1		RW
181				SP18	S4D2	Definition Byte 2 - System Alarm 4	0	255	0x01	0x01 - Sensor alarm (SAL) (always storing) 0x02 - Sensor break (tCb)/sensor incorrect polarity (tCp)/ sensor 1 (not storing) 0x04 - Sensor break (tCb)/sensor incorrect polarity (tCp)/ sensor 2 (not storing) 0x08 - Heat sink temperature alarm 0x10 - <n.a.> 0x20 - Project setup or control zone not started 0x40 - System-/Channel data error 0x80 - Error CAN / Slave error	1		RW
182				?		System Flag (SF) 1	0	255		0x01 - Auto operational Modus CAN 0x02 - DPEA protocol 0x04 - <n.a.> 0x08 - Temperature unit °C/°F 0x10 - Send/Receive interface active 0x20 - Identification of potential on sensor input 0x40 - <n.a.> 0x80 - <n.a.>	1		RW
183				?		System Flag (SF) 2	0	255		0x01 - <n.a.> 0x02 - <n.a.> 0x04 - <n.a.> 0x08 - <n.a.> 0x10 - <n.a.> 0x20 - <n.a.> 0x40 - <n.a.> 0x80 - <n.a.>	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
184				SP19	TRES	Timer after reset	0	2	1	0 - run 1 - Stop 2 - Auto	1		RW
185				SP20	ASP	Minimum Setpoint Value Change for Automatic Ramp	0	9990	0		10		RW
186				S002		Code number	0	999	60	50 – Zone locking on 51 – Zone locking off 60 - Store recipe 1 to storage card (RCP_0.EXP) 61 - Store recipe 2 to storage card (RCP_1.EXP) 62 - Store recipe 3 to storage card (RCP_2.EXP) 63 - Store recipe 4 to storage card (RCP_3.EXP) 64 - Store recipe 5 to storage card (RCP_4.EXP) 65 - Store recipe 6 to storage card (RCP_5.EXP) 66 - Store recipe 7 to storage card (RCP_6.EXP) 67 - Store recipe 8 to storage card (RCP_7.EXP) 68 - Store recipe 9 to storage card (RCP_8.EXP) 69 - Store recipe 10 to storage card (RCP_9.EXP)	1		RW
186				S002		Code number	0	999	60	70 - Load recipe 1 from storage card (RCP_0.EXP) 71 - Load recipe 2 from storage card (RCP_1.EXP) 72 - Load recipe 3 from storage card (RCP_2.EXP) 73 - Load recipe 4 from storage card (RCP_3.EXP) 74 - Load recipe 5 from storage card (RCP_4.EXP) 75 - Load recipe 6 from storage card (RCP_5.EXP) 76 - Load recipe 7 from storage card (RCP_6.EXP) 77 - Load recipe 8 from storage card (RCP_7.EXP) 78 - Load recipe 9 from storage card (RCP_8.EXP) 79 - Load recipe 10 from storage card (RCP_9.EXP)	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
186				S002		Code number	0	999	60	80 – Store configuration depending on DIP switch 81 - Load configuration depending on DIP switch 90 – Enable storage card 91 - Start firmware from storage card 93 - Format storage card 94 - Format storage card + attach auto load file for coding switch FF 98 – Delete error storage 99 - Disable storage card 100 – Activate time synchronization 111 - Start automatic cooling adaptation 177 - Activate current transfer 179 – Current measurement activated for HPC 440 - Reset-acknowledge alarms 445 - End identification 600 - Start diagnostic function for sensor allocation 602 - End diagnostic function for sensor allocation 605 – Start MoldCheck 606 – End MoldCheck 700 – Start address scan 907 – Take over data into EEPROM 976 - Stop project setup 977 - Start project setup	1		RW
187				S003		Alarm Flag Group 1	0	255	0x01	0x01 - Alarm 1 (Channel) 0x02 - Alarm 2 (Channel) 0x04 - Alarm 3 (Channel) 0x08 - Alarm 4 (Channel) 0x10 - Alarm 5 (System) 0x20 - Alarm 6 (System) 0x40 - Alarm 7 (System) 0x80 - Alarm 8 (System)	1		RO
188				S004		Alarm Flag Group 2	0	255	0x01	0x01 - Alarm 1 (Channel) 0x02 - Alarm 2 (Channel) 0x04 - Alarm 3 (Channel) 0x08 - Alarm 4 (Channel) 0x10 - Alarm 5 (System) 0x20 - Alarm 6 (System) 0x40 - Alarm 7 (System) 0x80 - Alarm 8 (System)	1		RO

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
189				S005		Alarm Flag Group 3	0	255	0x01	0x01 - Alarm 1 (Channel) 0x02 - Alarm 2 (Channel) 0x04 - Alarm 3 (Channel) 0x08 - Alarm 4 (Channel) 0x10 - Alarm 5 (System) 0x20 - Alarm 6 (System) 0x40 - Alarm 7 (System) 0x80 - Alarm 8 (System)	1		RO
190				S006		Alarm Flag Group 4	0	255	0x01	0x01 - Alarm 1 (Channel) 0x02 - Alarm 2 (Channel) 0x04 - Alarm 3 (Channel) 0x08 - Alarm 4 (Channel) 0x10 - Alarm 5 (System) 0x20 - Alarm 6 (System) 0x40 - Alarm 7 (System) 0x80 - Alarm 8 (System)	1		RO
191				S007		Alarm Flag Group 5	0	255	0x01	0x01 - Alarm 1 (Channel) 0x02 - Alarm 2 (Channel) 0x04 - Alarm 3 (Channel) 0x08 - Alarm 4 (Channel) 0x10 - Alarm 5 (System) 0x20 - Alarm 6 (System) 0x40 - Alarm 7 (System) 0x80 - Alarm 8 (System)	1		RO
192				S008		Alarm Flag Group 6	0	255	0x01	0x01 - Alarm 1 (Channel) 0x02 - Alarm 2 (Channel) 0x04 - Alarm 3 (Channel) 0x08 - Alarm 4 (Channel) 0x10 - Alarm 5 (System) 0x20 - Alarm 6 (System) 0x40 - Alarm 7 (System) 0x80 - Alarm 8 (System)	1		RO
193				S009		Alarm Flag Group 7	0	255	0x01	0x01 - Alarm 1 (Channel) 0x02 - Alarm 2 (Channel) 0x04 - Alarm 3 (Channel) 0x08 - Alarm 4 (Channel) 0x10 - Alarm 5 (System) 0x20 - Alarm 6 (System) 0x40 - Alarm 7 (System) 0x80 - Alarm 8 (System)	1		RO

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
194				S010		Alarm Flag Group 8	0	255	0x01	0x01 - Alarm 1 (Channel) 0x02 - Alarm 2 (Channel) 0x04 - Alarm 3 (Channel) 0x08 - Alarm 4 (Channel) 0x10 - Alarm 5 (System) 0x20 - Alarm 6 (System) 0x40 - Alarm 7 (System) 0x80 - Alarm 8 (System)	1		RO
195				S011		Alarm Flag Group 9	0	255	0x01	0x01 - Alarm 1 (Channel) 0x02 - Alarm 2 (Channel) 0x04 - Alarm 3 (Channel) 0x08 - Alarm 4 (Channel) 0x10 - Alarm 5 (System) 0x20 - Alarm 6 (System) 0x40 - Alarm 7 (System) 0x80 - Alarm 8 (System)	1		RO
196				S012		Alarm Flag Group 10	0	255	0x01	0x01 - Alarm 1 (Channel) 0x02 - Alarm 2 (Channel) 0x04 - Alarm 3 (Channel) 0x08 - Alarm 4 (Channel) 0x10 - Alarm 5 (System) 0x20 - Alarm 6 (System) 0x40 - Alarm 7 (System) 0x80 - Alarm 8 (System)	1		RO
197				S013		Alarm Flag Group 11	0	255	0x01	0x01 - Alarm 1 (Channel) 0x02 - Alarm 2 (Channel) 0x04 - Alarm 3 (Channel) 0x08 - Alarm 4 (Channel) 0x10 - Alarm 5 (System) 0x20 - Alarm 6 (System) 0x40 - Alarm 7 (System) 0x80 - Alarm 8 (System)	1		RO
198				S014		Alarm Flag Group 12	0	255	0x01	0x01 - Alarm 1 (Channel) 0x02 - Alarm 2 (Channel) 0x04 - Alarm 3 (Channel) 0x08 - Alarm 4 (Channel) 0x10 - Alarm 5 (System) 0x20 - Alarm 6 (System) 0x40 - Alarm 7 (System) 0x80 - Alarm 8 (System)	1		RO

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
199				S015		Alarm Flag Group 13	0	255	0x01	0x01 - Alarm 1 (Channel) 0x02 - Alarm 2 (Channel) 0x04 - Alarm 3 (Channel) 0x08 - Alarm 4 (Channel) 0x10 - Alarm 5 (System) 0x20 - Alarm 6 (System) 0x40 - Alarm 7 (System) 0x80 - Alarm 8 (System)	1		RO
200				S016		Alarm Flag Group 14	0	255	0x01	0x01 - Alarm 1 (Channel) 0x02 - Alarm 2 (Channel) 0x04 - Alarm 3 (Channel) 0x08 - Alarm 4 (Channel) 0x10 - Alarm 5 (System) 0x20 - Alarm 6 (System) 0x40 - Alarm 7 (System) 0x80 - Alarm 8 (System)	1		RO
201				S017		Alarm Flag Group 15	0	255	0x01	0x01 - Alarm 1 (Channel) 0x02 - Alarm 2 (Channel) 0x04 - Alarm 3 (Channel) 0x08 - Alarm 4 (Channel) 0x10 - Alarm 5 (System) 0x20 - Alarm 6 (System) 0x40 - Alarm 7 (System) 0x80 - Alarm 8 (System)	1		RO
202				S018		Alarm Flag Group 16	0	255	0x01	0x01 - Alarm 1 (Channel) 0x02 - Alarm 2 (Channel) 0x04 - Alarm 3 (Channel) 0x08 - Alarm 4 (Channel) 0x10 - Alarm 5 (System) 0x20 - Alarm 6 (System) 0x40 - Alarm 7 (System) 0x80 - Alarm 8 (System)	1		RO
203				S019		Alarm Flag Group 17	0	255	0x01	0x01 - Alarm 1 (Channel) 0x02 - Alarm 2 (Channel) 0x04 - Alarm 3 (Channel) 0x08 - Alarm 4 (Channel) 0x10 - Alarm 5 (System) 0x20 - Alarm 6 (System) 0x40 - Alarm 7 (System) 0x80 - Alarm 8 (System)	1		RO

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
204				S020		Alarm Flag Group 18	0	255	0x01	0x01 - Alarm 1 (Channel) 0x02 - Alarm 2 (Channel) 0x04 - Alarm 3 (Channel) 0x08 - Alarm 4 (Channel) 0x10 - Alarm 5 (System) 0x20 - Alarm 6 (System) 0x40 - Alarm 7 (System) 0x80 - Alarm 8 (System)	1		RO
205				S021		Alarm Flag Group 19	0	255	0x01	0x01 - Alarm 1 (Channel) 0x02 - Alarm 2 (Channel) 0x04 - Alarm 3 (Channel) 0x08 - Alarm 4 (Channel) 0x10 - Alarm 5 (System) 0x20 - Alarm 6 (System) 0x40 - Alarm 7 (System) 0x80 - Alarm 8 (System)	1		RO
206				S022		Alarm Flag Group 20	0	255	0x01	0x01 - Alarm 1 (Channel) 0x02 - Alarm 2 (Channel) 0x04 - Alarm 3 (Channel) 0x08 - Alarm 4 (Channel) 0x10 - Alarm 5 (System) 0x20 - Alarm 6 (System) 0x40 - Alarm 7 (System) 0x80 - Alarm 8 (System)	1		RO
207				S023		Alarm Flag Group 21	0	255	0x01	0x01 - Alarm 1 (Channel) 0x02 - Alarm 2 (Channel) 0x04 - Alarm 3 (Channel) 0x08 - Alarm 4 (Channel) 0x10 - Alarm 5 (System) 0x20 - Alarm 6 (System) 0x40 - Alarm 7 (System) 0x80 - Alarm 8 (System)	1		RO
208				S024		Alarm Flag Group 22	0	255	0x01	0x01 - Alarm 1 (Channel) 0x02 - Alarm 2 (Channel) 0x04 - Alarm 3 (Channel) 0x08 - Alarm 4 (Channel) 0x10 - Alarm 5 (System) 0x20 - Alarm 6 (System) 0x40 - Alarm 7 (System) 0x80 - Alarm 8 (System)	1		RO

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
209				S025		Alarm Flag Group 23	0	255	0x01	0x01 - Alarm 1 (Channel) 0x02 - Alarm 2 (Channel) 0x04 - Alarm 3 (Channel) 0x08 - Alarm 4 (Channel) 0x10 - Alarm 5 (System) 0x20 - Alarm 6 (System) 0x40 - Alarm 7 (System) 0x80 - Alarm 8 (System)	1		RO
210				S026		Alarm Flag Group 24	0	255	0x01	0x01 - Alarm 1 (Channel) 0x02 - Alarm 2 (Channel) 0x04 - Alarm 3 (Channel) 0x08 - Alarm 4 (Channel) 0x10 - Alarm 5 (System) 0x20 - Alarm 6 (System) 0x40 - Alarm 7 (System) 0x80 - Alarm 8 (System)	1		RO
211				S027		Alarm Flag Group 25	0	255	0x01	0x01 - Alarm 1 (Channel) 0x02 - Alarm 2 (Channel) 0x04 - Alarm 3 (Channel) 0x08 - Alarm 4 (Channel) 0x10 - Alarm 5 (System) 0x20 - Alarm 6 (System) 0x40 - Alarm 7 (System) 0x80 - Alarm 8 (System)	1		RO
212				S028		Alarm Flag Group 26	0	255	0x01	0x01 - Alarm 1 (Channel) 0x02 - Alarm 2 (Channel) 0x04 - Alarm 3 (Channel) 0x08 - Alarm 4 (Channel) 0x10 - Alarm 5 (System) 0x20 - Alarm 6 (System) 0x40 - Alarm 7 (System) 0x80 - Alarm 8 (System)	1		RO
213				S029		Alarm Flag Group 27	0	255	0x01	0x01 - Alarm 1 (Channel) 0x02 - Alarm 2 (Channel) 0x04 - Alarm 3 (Channel) 0x08 - Alarm 4 (Channel) 0x10 - Alarm 5 (System) 0x20 - Alarm 6 (System) 0x40 - Alarm 7 (System) 0x80 - Alarm 8 (System)	1		RO

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
214				S030		Alarm Flag Group 28	0	255	0x01	0x01 - Alarm 1 (Channel) 0x02 - Alarm 2 (Channel) 0x04 - Alarm 3 (Channel) 0x08 - Alarm 4 (Channel) 0x10 - Alarm 5 (System) 0x20 - Alarm 6 (System) 0x40 - Alarm 7 (System) 0x80 - Alarm 8 (System)	1		RO
215				S031		Alarm Flag Group 29	0	255	0x01	0x01 - Alarm 1 (Channel) 0x02 - Alarm 2 (Channel) 0x04 - Alarm 3 (Channel) 0x08 - Alarm 4 (Channel) 0x10 - Alarm 5 (System) 0x20 - Alarm 6 (System) 0x40 - Alarm 7 (System) 0x80 - Alarm 8 (System)	1		RO
216				S032		Alarm Flag Group 30	0	255	0x01	0x01 - Alarm 1 (Channel) 0x02 - Alarm 2 (Channel) 0x04 - Alarm 3 (Channel) 0x08 - Alarm 4 (Channel) 0x10 - Alarm 5 (System) 0x20 - Alarm 6 (System) 0x40 - Alarm 7 (System) 0x80 - Alarm 8 (System)	1		RO
217				S033		Alarm Flag Group 31	0	255	0x01	0x01 - Alarm 1 (Channel) 0x02 - Alarm 2 (Channel) 0x04 - Alarm 3 (Channel) 0x08 - Alarm 4 (Channel) 0x10 - Alarm 5 (System) 0x20 - Alarm 6 (System) 0x40 - Alarm 7 (System) 0x80 - Alarm 8 (System)	1		RO
218				S034		Alarm Flag Group 32	0	255	0x01	0x01 - Alarm 1 (Channel) 0x02 - Alarm 2 (Channel) 0x04 - Alarm 3 (Channel) 0x08 - Alarm 4 (Channel) 0x10 - Alarm 5 (System) 0x20 - Alarm 6 (System) 0x40 - Alarm 7 (System) 0x80 - Alarm 8 (System)	1		RO

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
219				S001		Status of MCU	0	65535	0x01	0x01 - 1=MCU RUN / 0=MCU STOP 0x02 - 1=Slave table Error / 0 = OK 0x04 - 1=Actual value table Error / 0 = OK 0x08 - 1=CANCT table Error / 0 = OK 0x10 - Bus error CANCT CF7 0x08 in all channels 0x20 - Bus error CANCT CF7 0x04 in all channels 0x40 - Timeout Slave 0x80 - Save project setup 0x100 - <n.a.> 0x200 - <n.a.> 0x400 - <n.a.> 0x800 - <n.a.> 0x1000 - <n.a.> 0x2000 - <n.a.> 0x4000 - <n.a.> 0x8000 - <n.a.>	1		RO
220				CP26	GWY1	Gateway Address 1. Octet	0	255	0		1		RW
221				CP27	GWY2	Gateway Address 2. Octet	0	255	0		1		RW
222				CP28	GWY3	Gateway Address 3. Octet	0	255	0		1		RW
223				CP29	GWY4	Gateway Address 4. Octet	0	255	0		1		RW
226				CP31	SR1	IP Address 1. Octet SR	0	255			1		RW
227				CP32	SR2	IP Address 2. Octet SR	0	255			1		RW
228				CP33	SR3	IP Address 3. Octet SR	0	255			1		RW
229				CP34	SR4	IP Address 4. Octet SR	0	255			1		RW
230				CP35	SRP	Port	1	65535			1		RW
231				CP36	SRBR	Size of Receiving Buffer	0	9999	0		1		RW
232				CP37	SRBS	Size of Sending Buffer	0	9999			1		RW
233				CP38	SRST	Sending Cycle	0	9999			1		RW
246				SP22	CMAX	Limit for Switching-off Leakage Current	0	999	0		1	mA	

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
248				SP23	IN3S	Function Digital Input 3 System	0	255	0	0 - Without function 1 - Absolute reduction to 2. setpoint value 2 - Absolute reduction to 3. setpoint value 3 - Absolute reduction to 4. setpoint value 4 - Relative reduction by 2. setpoint value 5 - Relative reduction by 3. setpoint value 6 - Relative reduction by 4. setpoint value 7 - Relative increase by 2. setpoint value 8 - Relative increase by 3. setpoint value 9 - Relative increase by 4. setpoint value 10 - Percentage reduction/increase by 2. setpoint value 11 - Percentage reduction/increase by 3. setpoint value 12 - Percentage reduction/increase by 4. setpoint value 13 - Absolute reduction to 2. setpoint value, if 2SV<SV 14 - Absolute reduction to 3. setpoint value, if 3SV<SV 15 - Absolute reduction to 4. setpoint value, if 4SV<SV 16 - Disconnect actuator 17 - Passivate zone 18 - Activate input block 19 - Reset-acknowledge zone alarms	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
248				SP23	IN3S	Function Digital Input 3 System	0	255	0	20 - Reset-acknowledge all alarms 21 - Output degree of operation of 100% for 10 sec 22 - Bypass group release 23 - Switch to 2. control parameter set 24 - Set I channel in controller to 0 25 - Start timer 1 26 - Start timer 2 27 - Start timer 3 28 - Start timer 4 29 - Switch to 2. control parameter set / actual value of control = measured value 2 30 - Deactivate Smart Power Limitation (SPL) 31 - Activate process monitoring 32 - Start learning phase of process monitoring 33 - Degree of operation absolute reduction to 2. setpoint value 34 - Degree of operation absolute reduction to 3. setpoint value 35 - Degree of operation absolute reduction to 4. setpoint value 36 - Degree of operation relative reduction by 2. setpoint value 37 - Degree of operation relative reduction by 3. setpoint value 38 - Degree of operation relative reduction by 4. setpoint value 39 - Degree of operation relative increase by 2. setpoint value	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
248				SP23	IN3S	Function Digital Input 3 System	0	255	0	40 - Degree of operation relative increase by 3. setpoint value 41 - Degree of operation relative increase by 4. setpoint value 42 - Cancel Heating limitation of degree of operation for zones in control mode 43 - Absolute reduction to 2. setpoint value without cooling (energy saving option) 44 - Relative reduction to 2. setpoint value without cooling (energy saving option) 45-128 - <n.a.> 129 - Absolute reduction to 2. setpoint value (inverted) 130 - Absolute reduction to 3. setpoint value (inverted) 131 - Absolute reduction to 4. setpoint value (inverted) 132 - Relative reduction by 2. setpoint value (inverted) 133 - Relative reduction by 3. setpoint value (inverted) 134 - Relative reduction by 4. setpoint value (inverted) 135 - Relative increase by 2. setpoint value (inverted) 136 - Relative increase by 3. setpoint value (inverted) 137 - Relative increase by 4. setpoint value (inverted) 138 - Percentage reduction/increase by 2. setpoint value (inverted)	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
248				SP23	IN3S	Function Digital Input 3 System	0	255	0	140 - Percentage reduction/increase by 4. setpoint value (inverted) 141 - Absolute reduction to 2. setpoint value, if 2SV<SV (inverted) 142 - Absolute reduction to 3. setpoint value, if 3SV<SV (inverted) 143 - Absolute reduction to 4. setpoint value, if 4SV<SV (inverted) 144 - Disconnect actuator (inverted) 145 - Passivate zone (inverted) 146 - Activate input block (inverted) 147 - Reset-acknowledge zone alarms (inverted) 148 - Reset-acknowledge all alarms (inverted) 149 - Degree of operation of boost (100%) of 10 sec (inverted) 150 - Bypass group release (inverted) 151 - Switch to 2. control parameter set (inverted) 152 - Set I channel in controller to 0 (inverted) 153 - Start timer 1 (inverted) 154 - Start timer 2 (inverted) 155 - Start timer 3 (inverted) 156 - Start timer 4 (inverted)	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
248				SP23	IN3S	Function Digital Input 3 System	0	255	0	157 - Switch to 2. control parameter set / actual value of control = measured value 2 (inverted) 158 - Deactivate Smart Power Limitation (SPL) (inverted) 159 - Activate process monitoring (inverted) 160 - Start learning phase of process monitoring (inverted) 161 - Degree of operation absolute reduction to 2. setpoint value (inverted) 162 - Degree of operation absolute reduction to 3. setpoint value (inverted) 163 - Degree of operation absolute reduction to 4. setpoint value (inverted) 164 - Degree of operation relative reduction by 2. setpoint value (inverted) 165 - Degree of operation relative reduction by 3. setpoint value (inverted) 166 - Degree of operation relative reduction by 4. setpoint value (inverted) 167 - Degree of operation relative increase by 2. setpoint value (inverted) 168 - Degree of operation relative increase by 3. setpoint value (inverted) 169 - Degree of operation relative increase by 4. setpoint value (inverted)	1		RW
248				SP23	IN3S	Function Digital Input 3 System	0	255	0	170 - Cancel Heating limitation of degree of operation for zones in control mode (inverted) 171 - Absolute reduction to 2. setpoint value without cooling (energy saving option) (inverted) 172 - Relative reduction to 2. setpoint value without cooling (energy saving option) (inverted) 173-255 <n.a.>	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
249				SP24	IN4S	Function Digital Input 4 System	0	255	0	0 - Without function 1 - Absolute reduction to 2. setpoint value 2 - Absolute reduction to 3. setpoint value 3 - Absolute reduction to 4. setpoint value 4 - Relative reduction by 2. setpoint value 5 - Relative reduction by 3. setpoint value 6 - Relative reduction by 4. setpoint value 7 - Relative increase by 2. setpoint value 8 - Relative increase by 3. setpoint value 9 - Relative increase by 4. setpoint value 10 - Percentage reduction/increase by 2. setpoint value 11 - Percentage reduction/increase by 3. setpoint value 12 - Percentage reduction/increase by 4. setpoint value 13 - Absolute reduction to 2. setpoint value, if $2SV < SV$ 14 - Absolute reduction to 3. setpoint value, if $3SV < SV$ 15 - Absolute reduction to 4. setpoint value, if $4SV < SV$ 16 - Disconnect actuator 17 - Passivate zone 18 - Activate input block 19 - Reset-acknowledge zone alarms	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
249				SP24	IN4S	Function Digital Input 4 System	0	255	0	20 - Reset-acknowledge all alarms 21 - Output degree of operation of 100% for 10 sec 22 - Bypass group release 23 - Switch to 2. control parameter set 24 - Set I channel in controller to 0 25 - Start timer 1 26 - Start timer 2 27 - Start timer 3 28 - Start timer 4 29 - Switch to 2. control parameter set / actual value of control = measured value 2 30 - Deactivate Smart Power Limitation (SPL) 31 - Activate process monitoring 32 - Start learning phase of process monitoring 33 - Degree of operation absolute reduction to 2. setpoint value 34 - Degree of operation absolute reduction to 3. setpoint value 35 - Degree of operation absolute reduction to 4. setpoint value 36 - Degree of operation relative reduction by 2. setpoint value 37 - Degree of operation relative reduction by 3. setpoint value 38 - Degree of operation relative reduction by 4. setpoint value 39 - Degree of operation relative increase by 2. setpoint value	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
249				SP24	IN4S	Function Digital Input 4 System	0	255	0	40 - Degree of operation relative increase by 3. setpoint value 41 - Degree of operation relative increase by 4. setpoint value 42 - Cancel Heating limitation of degree of operation for zones in control mode 43 - Absolute reduction to 2. setpoint value without cooling (energy saving option) 44 - Relative reduction to 2. setpoint value without cooling (energy saving option) 45-128 - <n.a.> 129 - Absolute reduction to 2. setpoint value (inverted) 130 - Absolute reduction to 3. setpoint value (inverted) 131 - Absolute reduction to 4. setpoint value (inverted) 132 - Relative reduction by 2. setpoint value (inverted) 133 - Relative reduction by 3. setpoint value (inverted) 134 - Relative reduction by 4. setpoint value (inverted) 135 - Relative increase by 2. setpoint value (inverted) 136 - Relative increase by 3. setpoint value (inverted) 137 - Relative increase by 4. setpoint value (inverted) 138 - Percentage reduction/increase by 2. setpoint value (inverted)	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
249				SP24	IN4S	Function Digital Input 4 System	0	255	0	140 - Percentage reduction/increase by 4. setpoint value (inverted) 141 - Absolute reduction to 2. setpoint value, if 2SV<SV (inverted) 142 - Absolute reduction to 3. setpoint value, if 3SV<SV (inverted) 143 - Absolute reduction to 4. setpoint value, if 4SV<SV (inverted) 144 - Disconnect actuator (inverted) 145 - Passivate zone (inverted) 146 - Activate input block (inverted) 147 - Reset-acknowledge zone alarms (inverted) 148 - Reset-acknowledge all alarms (inverted) 149 - Degree of operation of boost (100%) of 10 sec (inverted) 150 - Bypass group release (inverted) 151 - Switch to 2. control parameter set (inverted) 152 - Set I channel in controller to 0 (inverted) 153 - Start timer 1 (inverted) 154 - Start timer 2 (inverted) 155 - Start timer 3 (inverted) 156 - Start timer 4 (inverted)	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
249				SP24	IN4S	Function Digital Input 4 System	0	255	0	157 - Switch to 2. control parameter set / actual value of control = measured value 2 (inverted) 158 - Deactivate Smart Power Limitation (SPL) (inverted) 159 - Activate process monitoring (inverted) 160 - Start learning phase of process monitoring (inverted) 161 - Degree of operation absolute reduction to 2. setpoint value (inverted) 162 - Degree of operation absolute reduction to 3. setpoint value (inverted) 163 - Degree of operation absolute reduction to 4. setpoint value (inverted) 164 - Degree of operation relative reduction by 2. setpoint value (inverted) 165 - Degree of operation relative reduction by 3. setpoint value (inverted) 166 - Degree of operation relative reduction by 4. setpoint value (inverted) 167 - Degree of operation relative increase by 2. setpoint value (inverted) 168 - Degree of operation relative increase by 3. setpoint value (inverted) 169 - Degree of operation relative increase by 4. setpoint value (inverted)	1		RW
249				SP24	IN4S	Function Digital Input 4 System	0	255	0	170 - Cancel Heating limitation of degree of operation for zones in control mode (inverted) 171 - Absolute reduction to 2. setpoint value without cooling (energy saving option) (inverted) 172 - Relative reduction to 2. setpoint value without cooling (energy saving option) (inverted) 173-255 <n.a.>	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
250				SP25	IN5S	Function Digital Input 5 System	0	255	0	0 - Without function 1 - Absolute reduction to 2. setpoint value 2 - Absolute reduction to 3. setpoint value 3 - Absolute reduction to 4. setpoint value 4 - Relative reduction by 2. setpoint value 5 - Relative reduction by 3. setpoint value 6 - Relative reduction by 4. setpoint value 7 - Relative increase by 2. setpoint value 8 - Relative increase by 3. setpoint value 9 - Relative increase by 4. setpoint value 10 - Percentage reduction/increase by 2. setpoint value 11 - Percentage reduction/increase by 3. setpoint value 12 - Percentage reduction/increase by 4. setpoint value 13 - Absolute reduction to 2. setpoint value, if $2SV < SV$ 14 - Absolute reduction to 3. setpoint value, if $3SV < SV$ 15 - Absolute reduction to 4. setpoint value, if $4SV < SV$ 16 - Disconnect actuator 17 - Passivate zone 18 - Activate input block 19 - Reset-acknowledge zone alarms	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
250				SP25	IN5S	Function Digital Input 5 System	0	255	0	20 - Reset-acknowledge all alarms 21 - Output degree of operation of 100% for 10 sec 22 - Bypass group release 23 - Switch to 2. control parameter set 24 - Set I channel in controller to 0 25 - Start timer 1 26 - Start timer 2 27 - Start timer 3 28 - Start timer 4 29 - Switch to 2. control parameter set / actual value of control = measured value 2 30 - Deactivate Smart Power Limitation (SPL) 31 - Activate process monitoring 32 - Start learning phase of process monitoring 33 - Degree of operation absolute reduction to 2. setpoint value 34 - Degree of operation absolute reduction to 3. setpoint value 35 - Degree of operation absolute reduction to 4. setpoint value 36 - Degree of operation relative reduction by 2. setpoint value 37 - Degree of operation relative reduction by 3. setpoint value 38 - Degree of operation relative reduction by 4. setpoint value 39 - Degree of operation relative increase by 2. setpoint value	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
250				SP25	IN5S	Function Digital Input 5 System	0	255	0	40 - Degree of operation relative increase by 3. setpoint value 41 - Degree of operation relative increase by 4. setpoint value 42 - Cancel Heating limitation of degree of operation for zones in control mode 43 - Absolute reduction to 2. setpoint value without cooling (energy saving option) 44 - Relative reduction to 2. setpoint value without cooling (energy saving option) 45-128 - <n.a.> 129 - Absolute reduction to 2. setpoint value (inverted) 130 - Absolute reduction to 3. setpoint value (inverted) 131 - Absolute reduction to 4. setpoint value (inverted) 132 - Relative reduction by 2. setpoint value (inverted) 133 - Relative reduction by 3. setpoint value (inverted) 134 - Relative reduction by 4. setpoint value (inverted) 135 - Relative increase by 2. setpoint value (inverted) 136 - Relative increase by 3. setpoint value (inverted) 137 - Relative increase by 4. setpoint value (inverted) 138 - Percentage reduction/increase by 2. setpoint value (inverted)	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
250				SP25	IN5S	Function Digital Input 5 System	0	255	0	140 - Percentage reduction/increase by 4. setpoint value (inverted) 141 - Absolute reduction to 2. setpoint value, if 2SV<SV (inverted) 142 - Absolute reduction to 3. setpoint value, if 3SV<SV (inverted) 143 - Absolute reduction to 4. setpoint value, if 4SV<SV (inverted) 144 - Disconnect actuator (inverted) 145 - Passivate zone (inverted) 146 - Activate input block (inverted) 147 - Reset-acknowledge zone alarms (inverted) 148 - Reset-acknowledge all alarms (inverted) 149 - Degree of operation of boost (100%) of 10 sec (inverted) 150 - Bypass group release (inverted) 151 - Switch to 2. control parameter set (inverted) 152 - Set I channel in controller to 0 (inverted) 153 - Start timer 1 (inverted) 154 - Start timer 2 (inverted) 155 - Start timer 3 (inverted) 156 - Start timer 4 (inverted)	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
250				SP25	IN5S	Function Digital Input 5 System	0	255	0	157 - Switch to 2. control parameter set / actual value of control = measured value 2 (inverted) 158 - Deactivate Smart Power Limitation (SPL) (inverted) 159 - Activate process monitoring (inverted) 160 - Start learning phase of process monitoring (inverted) 161 - Degree of operation absolute reduction to 2. setpoint value (inverted) 162 - Degree of operation absolute reduction to 3. setpoint value (inverted) 163 - Degree of operation absolute reduction to 4. setpoint value (inverted) 164 - Degree of operation relative reduction by 2. setpoint value (inverted) 165 - Degree of operation relative reduction by 3. setpoint value (inverted) 166 - Degree of operation relative reduction by 4. setpoint value (inverted) 167 - Degree of operation relative increase by 2. setpoint value (inverted) 168 - Degree of operation relative increase by 3. setpoint value (inverted) 169 - Degree of operation relative increase by 4. setpoint value (inverted)	1		RW
250				SP25	IN5S	Function Digital Input 5 System	0	255	0	170 - Cancel Heating limitation of degree of operation for zones in control mode (inverted) 171 - Absolute reduction to 2. setpoint value without cooling (energy saving option) (inverted) 172 - Relative reduction to 2. setpoint value without cooling (energy saving option) (inverted) 173-255 <n.a.>	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
251				SP26	IN6S	Function Digital Input 6 System	0	255	0	0 - Without function 1 - Absolute reduction to 2. setpoint value 2 - Absolute reduction to 3. setpoint value 3 - Absolute reduction to 4. setpoint value 4 - Relative reduction by 2. setpoint value 5 - Relative reduction by 3. setpoint value 6 - Relative reduction by 4. setpoint value 7 - Relative increase by 2. setpoint value 8 - Relative increase by 3. setpoint value 9 - Relative increase by 4. setpoint value 10 - Percentage reduction/increase by 2. setpoint value 11 - Percentage reduction/increase by 3. setpoint value 12 - Percentage reduction/increase by 4. setpoint value 13 - Absolute reduction to 2. setpoint value, if 2SV<SV 14 - Absolute reduction to 3. setpoint value, if 3SV<SV 15 - Absolute reduction to 4. setpoint value, if 4SV<SV 16 - Disconnect actuator 17 - Passivate zone 18 - Activate input block 19 - Reset-acknowledge zone alarms	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
251				SP26	IN6S	Function Digital Input 6 System	0	255	0	20 - Reset-acknowledge all alarms 21 - Output degree of operation of 100% for 10 sec 22 - Bypass group release 23 - Switch to 2. control parameter set 24 - Set I channel in controller to 0 25 - Start timer 1 26 - Start timer 2 27 - Start timer 3 28 - Start timer 4 29 - Switch to 2. control parameter set / actual value of control = measured value 2 30 - Deactivate Smart Power Limitation (SPL) 31 - Activate process monitoring 32 - Start learning phase of process monitoring 33 - Degree of operation absolute reduction to 2. setpoint value 34 - Degree of operation absolute reduction to 3. setpoint value 35 - Degree of operation absolute reduction to 4. setpoint value 36 - Degree of operation relative reduction by 2. setpoint value 37 - Degree of operation relative reduction by 3. setpoint value 38 - Degree of operation relative reduction by 4. setpoint value 39 - Degree of operation relative increase by 2. setpoint value	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
251				SP26	IN6S	Function Digital Input 6 System	0	255	0	40 - Degree of operation relative increase by 3. setpoint value 41 - Degree of operation relative increase by 4. setpoint value 42 - Cancel Heating limitation of degree of operation for zones in control mode 43 - Absolute reduction to 2. setpoint value without cooling (energy saving option) 44 - Relative reduction to 2. setpoint value without cooling (energy saving option) 45-128 - <n.a.> 129 - Absolute reduction to 2. setpoint value (inverted) 130 - Absolute reduction to 3. setpoint value (inverted) 131 - Absolute reduction to 4. setpoint value (inverted) 132 - Relative reduction by 2. setpoint value (inverted) 133 - Relative reduction by 3. setpoint value (inverted) 134 - Relative reduction by 4. setpoint value (inverted) 135 - Relative increase by 2. setpoint value (inverted) 136 - Relative increase by 3. setpoint value (inverted) 137 - Relative increase by 4. setpoint value (inverted) 138 - Percentage reduction/increase by 2. setpoint value (inverted)	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
251				SP26	IN6S	Function Digital Input 6 System	0	255	0	140 - Percentage reduction/increase by 4. setpoint value (inverted) 141 - Absolute reduction to 2. setpoint value, if 2SV<SV (inverted) 142 - Absolute reduction to 3. setpoint value, if 3SV<SV (inverted) 143 - Absolute reduction to 4. setpoint value, if 4SV<SV (inverted) 144 - Disconnect actuator (inverted) 145 - Passivate zone (inverted) 146 - Activate input block (inverted) 147 - Reset-acknowledge zone alarms (inverted) 148 - Reset-acknowledge all alarms (inverted) 149 - Degree of operation of boost (100%) of 10 sec (inverted) 150 - Bypass group release (inverted) 151 - Switch to 2. control parameter set (inverted) 152 - Set I channel in controller to 0 (inverted) 153 - Start timer 1 (inverted) 154 - Start timer 2 (inverted) 155 - Start timer 3 (inverted) 156 - Start timer 4 (inverted)	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
251				SP26	IN6S	Function Digital Input 6 System	0	255	0	157 - Switch to 2. control parameter set / actual value of control = measured value 2 (inverted) 158 - Deactivate Smart Power Limitation (SPL) (inverted) 159 - Activate process monitoring (inverted) 160 - Start learning phase of process monitoring (inverted) 161 - Degree of operation absolute reduction to 2. setpoint value (inverted) 162 - Degree of operation absolute reduction to 3. setpoint value (inverted) 163 - Degree of operation absolute reduction to 4. setpoint value (inverted) 164 - Degree of operation relative reduction by 2. setpoint value (inverted) 165 - Degree of operation relative reduction by 3. setpoint value (inverted) 166 - Degree of operation relative reduction by 4. setpoint value (inverted) 167 - Degree of operation relative increase by 2. setpoint value (inverted) 168 - Degree of operation relative increase by 3. setpoint value (inverted) 169 - Degree of operation relative increase by 4. setpoint value (inverted)	1		RW
251				SP26	IN6S	Function Digital Input 6 System	0	255	0	170 - Cancel Heating limitation of degree of operation for zones in control mode (inverted) 171 - Absolute reduction to 2. setpoint value without cooling (energy saving option) (inverted) 172 - Relative reduction to 2. setpoint value without cooling (energy saving option) (inverted) 173-255 <n.a.>	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
252				SP27	IN7S	Function Digital Input 7 System	0	255	0	0 - Without function 1 - Absolute reduction to 2. setpoint value 2 - Absolute reduction to 3. setpoint value 3 - Absolute reduction to 4. setpoint value 4 - Relative reduction by 2. setpoint value 5 - Relative reduction by 3. setpoint value 6 - Relative reduction by 4. setpoint value 7 - Relative increase by 2. setpoint value 8 - Relative increase by 3. setpoint value 9 - Relative increase by 4. setpoint value 10 - Percentage reduction/increase by 2. setpoint value 11 - Percentage reduction/increase by 3. setpoint value 12 - Percentage reduction/increase by 4. setpoint value 13 - Absolute reduction to 2. setpoint value, if $2SV < SV$ 14 - Absolute reduction to 3. setpoint value, if $3SV < SV$ 15 - Absolute reduction to 4. setpoint value, if $4SV < SV$ 16 - Disconnect actuator 17 - Passivate zone 18 - Activate input block 19 - Reset-acknowledge zone alarms	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
252				SP27	IN7S	Function Digital Input 7 System	0	255	0	20 - Reset-acknowledge all alarms 21 - Output degree of operation of 100% for 10 sec 22 - Bypass group release 23 - Switch to 2. control parameter set 24 - Set I channel in controller to 0 25 - Start timer 1 26 - Start timer 2 27 - Start timer 3 28 - Start timer 4 29 - Switch to 2. control parameter set / actual value of control = measured value 2 30 - Deactivate Smart Power Limitation (SPL) 31 - Activate process monitoring 32 - Start learning phase of process monitoring 33 - Degree of operation absolute reduction to 2. setpoint value 34 - Degree of operation absolute reduction to 3. setpoint value 35 - Degree of operation absolute reduction to 4. setpoint value 36 - Degree of operation relative reduction by 2. setpoint value 37 - Degree of operation relative reduction by 3. setpoint value 38 - Degree of operation relative reduction by 4. setpoint value 39 - Degree of operation relative increase by 2. setpoint value	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
252				SP27	IN7S	Function Digital Input 7 System	0	255	0	40 - Degree of operation relative increase by 3. setpoint value 41 - Degree of operation relative increase by 4. setpoint value 42 - Cancel Heating limitation of degree of operation for zones in control mode 43 - Absolute reduction to 2. setpoint value without cooling (energy saving option) 44 - Relative reduction to 2. setpoint value without cooling (energy saving option) 45-128 - <n.a.> 129 - Absolute reduction to 2. setpoint value (inverted) 130 - Absolute reduction to 3. setpoint value (inverted) 131 - Absolute reduction to 4. setpoint value (inverted) 132 - Relative reduction by 2. setpoint value (inverted) 133 - Relative reduction by 3. setpoint value (inverted) 134 - Relative reduction by 4. setpoint value (inverted) 135 - Relative increase by 2. setpoint value (inverted) 136 - Relative increase by 3. setpoint value (inverted) 137 - Relative increase by 4. setpoint value (inverted) 138 - Percentage reduction/increase by 2. setpoint value (inverted)	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
252				SP27	IN7S	Function Digital Input 7 System	0	255	0	140 - Percentage reduction/increase by 4. setpoint value (inverted) 141 - Absolute reduction to 2. setpoint value, if 2SV<SV (inverted) 142 - Absolute reduction to 3. setpoint value, if 3SV<SV (inverted) 143 - Absolute reduction to 4. setpoint value, if 4SV<SV (inverted) 144 - Disconnect actuator (inverted) 145 - Passivate zone (inverted) 146 - Activate input block (inverted) 147 - Reset-acknowledge zone alarms (inverted) 148 - Reset-acknowledge all alarms (inverted) 149 - Degree of operation of boost (100%) of 10 sec (inverted) 150 - Bypass group release (inverted) 151 - Switch to 2. control parameter set (inverted) 152 - Set I channel in controller to 0 (inverted) 153 - Start timer 1 (inverted) 154 - Start timer 2 (inverted) 155 - Start timer 3 (inverted) 156 - Start timer 4 (inverted)	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
252				SP27	IN7S	Function Digital Input 7 System	0	255	0	157 - Switch to 2. control parameter set / actual value of control = measured value 2 (inverted) 158 - Deactivate Smart Power Limitation (SPL) (inverted) 159 - Activate process monitoring (inverted) 160 - Start learning phase of process monitoring (inverted) 161 - Degree of operation absolute reduction to 2. setpoint value (inverted) 162 - Degree of operation absolute reduction to 3. setpoint value (inverted) 163 - Degree of operation absolute reduction to 4. setpoint value (inverted) 164 - Degree of operation relative reduction by 2. setpoint value (inverted) 165 - Degree of operation relative reduction by 3. setpoint value (inverted) 166 - Degree of operation relative reduction by 4. setpoint value (inverted) 167 - Degree of operation relative increase by 2. setpoint value (inverted) 168 - Degree of operation relative increase by 3. setpoint value (inverted) 169 - Degree of operation relative increase by 4. setpoint value (inverted)	1		RW
252				SP27	IN7S	Function Digital Input 7 System	0	255	0	170 - Cancel Heating limitation of degree of operation for zones in control mode (inverted) 171 - Absolute reduction to 2. setpoint value without cooling (energy saving option) (inverted) 172 - Relative reduction to 2. setpoint value without cooling (energy saving option) (inverted) 173-255 <n.a.>	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
253				SP28	IN8S	Function Digital Input 8 System	0	255	0	0 - Without function 1 - Absolute reduction to 2. setpoint value 2 - Absolute reduction to 3. setpoint value 3 - Absolute reduction to 4. setpoint value 4 - Relative reduction by 2. setpoint value 5 - Relative reduction by 3. setpoint value 6 - Relative reduction by 4. setpoint value 7 - Relative increase by 2. setpoint value 8 - Relative increase by 3. setpoint value 9 - Relative increase by 4. setpoint value 10 - Percentage reduction/increase by 2. setpoint value 11 - Percentage reduction/increase by 3. setpoint value 12 - Percentage reduction/increase by 4. setpoint value 13 - Absolute reduction to 2. setpoint value, if $2SV < SV$ 14 - Absolute reduction to 3. setpoint value, if $3SV < SV$ 15 - Absolute reduction to 4. setpoint value, if $4SV < SV$ 16 - Disconnect actuator 17 - Passivate zone 18 - Activate input block 19 - Reset-acknowledge zone alarms	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
253				SP28	IN8S	Function Digital Input 8 System	0	255	0	20 - Reset-acknowledge all alarms 21 - Output degree of operation of 100% for 10 sec 22 - Bypass group release 23 - Switch to 2. control parameter set 24 - Set I channel in controller to 0 25 - Start timer 1 26 - Start timer 2 27 - Start timer 3 28 - Start timer 4 29 - Switch to 2. control parameter set / actual value of control = measured value 2 30 - Deactivate Smart Power Limitation (SPL) 31 - Activate process monitoring 32 - Start learning phase of process monitoring 33 - Degree of operation absolute reduction to 2. setpoint value 34 - Degree of operation absolute reduction to 3. setpoint value 35 - Degree of operation absolute reduction to 4. setpoint value 36 - Degree of operation relative reduction by 2. setpoint value 37 - Degree of operation relative reduction by 3. setpoint value 38 - Degree of operation relative reduction by 4. setpoint value 39 - Degree of operation relative increase by 2. setpoint value	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
253				SP28	IN8S	Function Digital Input 8 System	0	255	0	40 - Degree of operation relative increase by 3. setpoint value 41 - Degree of operation relative increase by 4. setpoint value 42 - Cancel Heating limitation of degree of operation for zones in control mode 43 - Absolute reduction to 2. setpoint value without cooling (energy saving option) 44 - Relative reduction to 2. setpoint value without cooling (energy saving option) 45-128 - <n.a.> 129 - Absolute reduction to 2. setpoint value (inverted) 130 - Absolute reduction to 3. setpoint value (inverted) 131 - Absolute reduction to 4. setpoint value (inverted) 132 - Relative reduction by 2. setpoint value (inverted) 133 - Relative reduction by 3. setpoint value (inverted) 134 - Relative reduction by 4. setpoint value (inverted) 135 - Relative increase by 2. setpoint value (inverted) 136 - Relative increase by 3. setpoint value (inverted) 137 - Relative increase by 4. setpoint value (inverted) 138 - Percentage reduction/increase by 2. setpoint value (inverted)	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
253				SP28	IN8S	Function Digital Input 8 System	0	255	0	140 - Percentage reduction/increase by 4. setpoint value (inverted) 141 - Absolute reduction to 2. setpoint value, if 2SV<SV (inverted) 142 - Absolute reduction to 3. setpoint value, if 3SV<SV (inverted) 143 - Absolute reduction to 4. setpoint value, if 4SV<SV (inverted) 144 - Disconnect actuator (inverted) 145 - Passivate zone (inverted) 146 - Activate input block (inverted) 147 - Reset-acknowledge zone alarms (inverted) 148 - Reset-acknowledge all alarms (inverted) 149 - Degree of operation of boost (100%) of 10 sec (inverted) 150 - Bypass group release (inverted) 151 - Switch to 2. control parameter set (inverted) 152 - Set I channel in controller to 0 (inverted) 153 - Start timer 1 (inverted) 154 - Start timer 2 (inverted) 155 - Start timer 3 (inverted) 156 - Start timer 4 (inverted)	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
253				SP28	IN8S	Function Digital Input 8 System	0	255	0	157 - Switch to 2. control parameter set / actual value of control = measured value 2 (inverted) 158 - Deactivate Smart Power Limitation (SPL) (inverted) 159 - Activate process monitoring (inverted) 160 - Start learning phase of process monitoring (inverted) 161 - Degree of operation absolute reduction to 2. setpoint value (inverted) 162 - Degree of operation absolute reduction to 3. setpoint value (inverted) 163 - Degree of operation absolute reduction to 4. setpoint value (inverted) 164 - Degree of operation relative reduction by 2. setpoint value (inverted) 165 - Degree of operation relative reduction by 3. setpoint value (inverted) 166 - Degree of operation relative reduction by 4. setpoint value (inverted) 167 - Degree of operation relative increase by 2. setpoint value (inverted) 168 - Degree of operation relative increase by 3. setpoint value (inverted) 169 - Degree of operation relative increase by 4. setpoint value (inverted)	1		RW
253				SP28	IN8S	Function Digital Input 8 System	0	255	0	170 - Cancel Heating limitation of degree of operation for zones in control mode (inverted) 171 - Absolute reduction to 2. setpoint value without cooling (energy saving option) (inverted) 172 - Relative reduction to 2. setpoint value without cooling (energy saving option) (inverted) 173-255 <n.a.>	1		RW
254				SP29	COFO	Controller Overall Function Offset	1	999	1		1		RW
255				SP40	PMOD	Process Monitoring Mode	0	3	0	0 - passive 1 - Fully automatic 2 - Manual 3 - Intelligent	1		RW
n.a.				SP51	S4Dt	System Alarm 4 Delay Time	0	255	0		1	s	
n.a.				SP50	S3Dt	System Alarm 3 Delay Time	0	255	0		1	s	

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
n.a.				SP49	S2Dt	System Alarm 2 Delay Time	0	255	0		1	s	
n.a.				SP48	S1Dt	System Alarm 1 Delay Time	0	255	0		1	s	

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
1				P001	SP	Setpoint value	0	19999	0.0		10	°C/°F	RW
2				PV01		Active Setpoint Value	0	19999			10	°C/°F	RW
3				P002	OPWR	Degree of operation	-99	100	0		1	%	RW
4				?		Degree of Operation High Resolution	-1000 0	10000			100	%	RW
5				P004	CurS	Current setpoint value	0	9990	0.0		10	A	RW
6				P005	CurT	Current tolerance	0	9990	200.0		10	%	RW
7				P007	ZTYP	Zone type	0	1	0	0 – Zone in control mode (Ctr) 1 - Zone in measuring mode (MSR)	1		RW
8				P009	SP2	2. Setpoint / 2. Lowering Value	0	19999	0.0		10	°C/°F	RW
9				P010	SP3	3. Setpoint / 3. Lowering Value	0	19999	0.0		10	°C/°F	RW
10				P011	SP4	4. Setpoint / 4. Lowering Value	0	19999	0.0		10	°C/°F	RW
11				P012	SPLO	Lower Set Point Value Limit	0	19999	0.0		10	°C/°F	RW
12				P013	SPHI	Upper Set Point Value Limit	0	19999	500.0		10	°C/°F	RW
13				P015	TCAT	Sensor Short Circuit Monitoring Time	0	999	0		1	s	RW
14				P017	TRMP	Temperature ramp	0	999	0.0		10	°C/min	RW
15				P019	K-CO	Amplification factor for Leading Control	-99	100	oFF	oFF, on	1		RW
16				P020	NrCO	Leading zone	0	128	0		1		RW
17				P021	DIAT	Time for Diagnostics	0	99	2		1	s	RW
18				P022	APPL	Application	0	255	0		1		RW
19				P023	OUTH	Heating Degree of Operation Damping	0	100	100		1	%	RW
20				P024	OUTC	Cooling Degree of Operation Damping	-100	0	-100		1	%	RW
21				P025	OUT%	Maximum Degree of Operation in Manual Mode	-100	100	100		1	%	RW
22				P029	PULS	Pulse Duration	4	500	20		1	s	RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
23				P030	PMIN	Minimum Pause Duration	0	999	50.0		1	s	RW
24				P031	PMAX	Maximum Pause Duration	0	999	200.0		1	s	RW
25				P035	SPCb	Setpoint Value Cutback	0	200	0	oFF, on	1	°C/°F	RW
26				P038	ALGO	Algorithm	0	255	0	0 - Standard 1 - Simple PID	1		RW
27				P042	XPH	Heating Proportional Band	0	255	99.0		10	%	RW
28				P043	TDH	Heating Derivative Time	0	999	255		1	s	RW
29				P044	TIH	Heating Integral Time	0	999	500		1	s	RW
30				P045	CTH	Heating Sampling Time	0	900	10.0		10	s	RW
31				P046	XPC	Cooling Proportional Band	0	255	99.0		10	%	RW
32				P047	TDC	Cooling derivative time	0	999	255		1	s	RW
33				P048	TIC	Cooling integral time	0	999	500		1	s	RW
34				P049	CTC	Cooling sampling time	0	900	10.0		10	s	RW
35				P050	XPH2	Heating Proportional Band 2	0	255	99.0		10	%	RW
36				P051	TDH2	Heating Derivative Time 2	0	999	255		1	s	RW
37				P052	TIH2	Heating Integral Time 2	0	999	500		1	s	RW
38				P053	CTH2	Heating Sampling Time 2	0	900	10.0		10	s	RW
39				P054	XPC2	Cooling Proportional Band 2	0	255	99.0		10	%	RW
40				P055	TDC2	Cooling Derivative Time 2	0	999	255		1	s	RW
41				P056	TIC2	Cooling Integral Time 2	0	999	500		1	s	RW
42				P057	CTC2	Cooling Sampling Time 2	0	900	10.0		10	s	RW
43				P058	GPNo	Group Number	0	32	0		1		RW
44				P059	GPF	Group Release by	0	32	0		1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
45				P060	GPM	Group Mode	0	255	0		1		RW
46				P061	LI1	Limit value 1	-9990	19999	50		10	°C/°F	RW
47				P062	LI1D	Limit Value Definition 1	0	255	0x01	0x01 - relative limit value = 0 / absolute limit value = 1 0x02 – Alarm calculation after exceeding of limit value (relative) / Alarm calculation after exceeding of limit value (absolute) 0x04 – n.a. / Error on actual value > limit value (absolute) 0x08 - Limit value also for setpoint value = 0°C/0°F (relative) / Limit value also for setpoint value = 0°C/0°F (absolute) 0x10 – For limit value alarm, switch OFF actuator / For limit value alarm, switch OFF actuator 0x20 – Limit value alarm is storing Limit value alarm is storing 0x40 – Limit value around main setpoint value (relative) / n.a. 0x80 – Alarm calculation after exceeding of limit value (relative), when limit is once exceeded after setpoint value change / Alarm calculation after exceeding of limit value (absolute), when limit is once exceeded after setpoint value change	1		RW
48				P063	LI2	Limit Value 2	-9990	19999	-50		10	°C/°F	RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
49				P064	LI2D	Limit Value Definition 2	0	255	0x01	0x01 - relative limit value = 0 / absolute limit value = 1 0x02 – Alarm calculation after exceeding of limit value (relative) / Alarm calculation after exceeding of limit value (absolute) 0x04 – n.a. / Error on actual value > limit value (absolute) 0x08 - Limit value also for setpoint value = 0°C/0°F (relative) / Limit value also for setpoint value = 0°C/0°F (absolute) 0x10 – For limit value alarm, switch OFF actuator / For limit value alarm, switch OFF actuator 0x20 – Limit value alarm is storing Limit value alarm is storing 0x40 – Limit value around main setpoint value (relative) / n.a. 0x80 – Alarm calculation after exceeding of limit value (relative), when limit is once exceeded after setpoint value change / Alarm calculation after exceeding of limit value (absolute), when limit is once exceeded after setpoint value change	1		RW
50				P065	LI3	Limit Value 3	-9990	19999	0		10	°C/°F	RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
51				P066	LI3D	Limit Value Definition 3	0	255	0x01	0x01 - relative limit value = 0 / absolute limit value = 1 0x02 – Alarm calculation after exceeding of limit value (relative) / Alarm calculation after exceeding of limit value (absolute) 0x04 – n.a. / Error on actual value > limit value (absolute) 0x08 - Limit value also for setpoint value = 0°C/0°F (relative) / Limit value also for setpoint value = 0°C/0°F (absolute) 0x10 – For limit value alarm, switch OFF actuator / For limit value alarm, switch OFF actuator 0x20 – Limit value alarm is storing Limit value alarm is storing 0x40 – Limit value around main setpoint value (relative) / n.a. 0x80 – Alarm calculation after exceeding of limit value (relative), when limit is once exceeded after setpoint value change / Alarm calculation after exceeding of limit value (absolute), when limit is once exceeded after setpoint value change	1		RW
52				P067	LI4	Limit Value 4	-9990	19999	0		10	°C/°F	RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
53				P068	LI4D	Limit Value Definition 4	0	255	0x01	0x01 - relative limit value = 0 / absolute limit value = 1 0x02 – Alarm calculation after exceeding of limit value (relative) / Alarm calculation after exceeding of limit value (absolute) 0x04 – n.a. / Error on actual value > limit value (absolute) 0x08 - Limit value also for setpoint value = 0°C/0°F (relative) / Limit value also for setpoint value = 0°C/0°F (absolute) 0x10 – For limit value alarm, switch OFF actuator / For limit value alarm, switch OFF actuator 0x20 – Limit value alarm is storing Limit value alarm is storing 0x40 – Limit value around main setpoint value (relative) / n.a. 0x80 – Alarm calculation after exceeding of limit value (relative), when limit is once exceeded after setpoint value change / Alarm calculation after exceeding of limit value (absolute), when limit is once exceeded after setpoint value change	1		RW
54				P069	LI5	Limit Value 5	-9990	19999	0		10	°C/°F	RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
55				P070	LI5D	Limit Value Definition 5	0	255	0x01	0x01 - relative limit value = 0 / absolute limit value = 1 0x02 – Alarm calculation after exceeding of limit value (relative) / Alarm calculation after exceeding of limit value (absolute) 0x04 – n.a. / Error on actual value > limit value (absolute) 0x08 - Limit value also for setpoint value = 0°C/0°F (relative) / Limit value also for setpoint value = 0°C/0°F (absolute) 0x10 – For limit value alarm, switch OFF actuator / For limit value alarm, switch OFF actuator 0x20 – Limit value alarm is storing Limit value alarm is storing 0x40 – Limit value around main setpoint value (relative) / n.a. 0x80 – Alarm calculation after exceeding of limit value (relative), when limit is once exceeded after setpoint value change / Alarm calculation after exceeding of limit value (absolute), when limit is once exceeded after setpoint value change	1		RW
56				P071	LI6	Limit Value 6	-9990	19999	0		10	°C/°F	RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
57				P072	LI6D	Limit Value Definition 6	0	255	0x01	0x01 - relative limit value = 0 / absolute limit value = 1 0x02 – Alarm calculation after exceeding of limit value (relative) / Alarm calculation after exceeding of limit value (absolute) 0x04 – n.a. / Error on actual value > limit value (absolute) 0x08 - Limit value also for setpoint value = 0°C/0°F (relative) / Limit value also for setpoint value = 0°C/0°F (absolute) 0x10 – For limit value alarm, switch OFF actuator / For limit value alarm, switch OFF actuator 0x20 – Limit value alarm is storing Limit value alarm is storing 0x40 – Limit value around main setpoint value (relative) / n.a. 0x80 – Alarm calculation after exceeding of limit value (relative), when limit is once exceeded after setpoint value change / Alarm calculation after exceeding of limit value (absolute), when limit is once exceeded after setpoint value change	1		RW
58				P073	A1D1	Definition Byte 1 - Alarm 1	0	255	0x01	0x01 - Thyristor alarm (I-) 0x02 - Current tolerance alarm (CtA) 0x04 - LI1 (storing by LI1D) 0x08 - LI2 (storing by LI2D) 0x10 - LI3 (storing by LI3D) 0x20 - LI4 (storing by LI4D) 0x40 - LI5 (storing by LI5D) 0x80 - LI6 (storing by LI6D)	1		RW
59				P074	A1D2	Definition Byte 2 - Alarm 1	0	255	0x01	0x01 - Sensor alarm (SAL) (always storing) 0x02 - Sensor break (tCb)/sensor incorrect polarity (tCp)/ sensor 1 (not storing) 0x04 - Sensor break (tCb)/sensor incorrect polarity (tCp)/ sensor 2 (not storing) 0x08 - Heat sink temperature alarm 0x10 - Heat sink temperature limit value exceeded 0x20 - Project setup or control zone not started 0x40 - <n.a.> 0x80 - <n.a.>	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
60				P075	A2D1	Definition Byte 1 - Alarm 2	0	255	0x01	0x01 - Thyristor alarm (I-) 0x02 - Current tolerance alarm (CtA) 0x04 - LI1 (storing by LI1D) 0x08 - LI2 (storing by LI2D) 0x10 - LI3 (storing by LI3D) 0x20 - LI4 (storing by LI4D) 0x40 - LI5 (storing by LI5D) 0x80 - LI6 (storing by LI6D)	1		RW
61				P076	A2D2	Definition Byte 2 - Alarm 2	0	255	0x01	0x01 - Sensor alarm (SAL) (always storing) 0x02 - Sensor break (tCb)/sensor incorrect polarity (tCp)/ sensor 1 (not storing) 0x04 - Sensor break (tCb)/sensor incorrect polarity (tCp)/ sensor 2 (not storing) 0x08 - Heat sink temperature alarm 0x10 - Heat sink temperature limit value exceeded 0x20 - Project setup or control zone not started 0x40 - <n.a.> 0x80 - <n.a.>	1		RW
62				P077	A3D1	Definition Byte 1 - Alarm 3	0	255	0x01	0x01 - Thyristor alarm (I-) 0x02 - Current tolerance alarm (CtA) 0x04 - LI1 (storing by LI1D) 0x08 - LI2 (storing by LI2D) 0x10 - LI3 (storing by LI3D) 0x20 - LI4 (storing by LI4D) 0x40 - LI5 (storing by LI5D) 0x80 - LI6 (storing by LI6D)	1		RW
63				P078	A3D2	Definition Byte 2 - Alarm 3	0	255	0x01	0x01 - Sensor alarm (SAL) (always storing) 0x02 - Sensor break (tCb)/sensor incorrect polarity (tCp)/ sensor 1 (not storing) 0x04 - Sensor break (tCb)/sensor incorrect polarity (tCp)/ sensor 2 (not storing) 0x08 - Heat sink temperature alarm 0x10 - Heat sink temperature limit value exceeded 0x20 - Project setup or control zone not started 0x40 - <n.a.> 0x80 - <n.a.>	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
64				P079	A4D1	Definition Byte 1 - Alarm 4	0	255	0x01	0x01 - Thyristor alarm (I-) 0x02 - Current tolerance alarm (CtA) 0x04 - LI1 (storing by LI1D) 0x08 - LI2 (storing by LI2D) 0x10 - LI3 (storing by LI3D) 0x20 - LI4 (storing by LI4D) 0x40 - LI5 (storing by LI5D) 0x80 - LI6 (storing by LI6D)	1		RW
65				P080	A4D2	Definition Byte 2 - Alarm 4	0	255	0x01	0x01 - Sensor alarm (SAL) (always storing) 0x02 - Sensor break (tCb)/sensor incorrect polarity (tCp)/ sensor 1 (not storing) 0x04 - Sensor break (tCb)/sensor incorrect polarity (tCp)/ sensor 2 (not storing) 0x08 - Heat sink temperature alarm 0x10 - Heat sink temperature limit value exceeded 0x20 - Project setup or control zone not started 0x40 - <n.a.> 0x80 - <n.a.>	1		RW
66				P081	GPAL	Alarm Group	0	32	0		1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
67				P082	IN1C	Function Digital Input 1 Zone	0	255	0	0 - Without function 1 - Absolute reduction to 2. setpoint value 2 - Absolute reduction to 3. setpoint value 3 - Absolute reduction to 4. setpoint value 4 - Relative reduction by 2. setpoint value 5 - Relative reduction by 3. setpoint value 6 - Relative reduction by 4. setpoint value 7 - Relative increase by 2. setpoint value 8 - Relative increase by 3. setpoint value 9 - Relative increase by 4. setpoint value 10 - Percentage reduction/increase by 2. setpoint value 11 - Percentage reduction/increase by 3. setpoint value 12 - Percentage reduction/increase by 4. setpoint value 13 - Absolute reduction to 2. setpoint value, if $2SV < SV$ 14 - Absolute reduction to 3. setpoint value, if $3SV < SV$ 15 - Absolute reduction to 4. setpoint value, if $4SV < SV$ 16 - Disconnect actuator 17 - Passivate zone 18 - Activate input block 19 - Reset-acknowledge zone alarms	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
67				P082	IN1C	Function Digital Input 1 Zone	0	255	0	20 - Reset-acknowledge all alarms 21 - Output degree of operation of 100% for 10 sec 22 - Bypass group release 23 - Switch to 2. control parameter set 24 - Set I channel in controller to 0 25 - Start timer 1 26 - Start timer 2 27 - Start timer 3 28 - Start timer 4 29 - Switch to 2. control parameter set / actual value of control = measured value 2 30 - Deactivate Smart Power Limitation (SPL) 31 - Activate process monitoring 32 - Start learning phase of process monitoring 33 - Degree of operation absolute reduction to 2. setpoint value 34 - Degree of operation absolute reduction to 3. setpoint value 35 - Degree of operation absolute reduction to 4. setpoint value 36 - Degree of operation relative reduction by 2. setpoint value 37 - Degree of operation relative reduction by 3. setpoint value 38 - Degree of operation relative reduction by 4. setpoint value 39 - Degree of operation relative increase by 2. setpoint value	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
67				P082	IN1C	Function Digital Input 1 Zone	0	255	0	40 - Degree of operation relative increase by 3. setpoint value 41 - Degree of operation relative increase by 4. setpoint value 42 - Cancel Heating limitation of degree of operation for zones in control mode 43 - Absolute reduction to 2. setpoint value without cooling (energy saving option) 44 - Relative reduction to 2. setpoint value without cooling (energy saving option) 45-128 - <n.a.> 129 - Absolute reduction to 2. setpoint value (inverted) 130 - Absolute reduction to 3. setpoint value (inverted) 131 - Absolute reduction to 4. setpoint value (inverted) 132 - Relative reduction by 2. setpoint value (inverted) 133 - Relative reduction by 3. setpoint value (inverted) 134 - Relative reduction by 4. setpoint value (inverted) 135 - Relative increase by 2. setpoint value (inverted) 136 - Relative increase by 3. setpoint value (inverted) 137 - Relative increase by 4. setpoint value (inverted) 138 - Percentage reduction/increase by 2. setpoint value (inverted)	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
67				P082	IN1C	Function Digital Input 1 Zone	0	255	0	140 - Percentage reduction/increase by 4. setpoint value (inverted) 141 - Absolute reduction to 2. setpoint value, if 2SV<SV (inverted) 142 - Absolute reduction to 3. setpoint value, if 3SV<SV (inverted) 143 - Absolute reduction to 4. setpoint value, if 4SV<SV (inverted) 144 - Disconnect actuator (inverted) 145 - Passivate zone (inverted) 146 - Activate input block (inverted) 147 - Reset-acknowledge zone alarms (inverted) 148 - Reset-acknowledge all alarms (inverted) 149 - Degree of operation of boost (100%) of 10 sec (inverted) 150 - Bypass group release (inverted) 151 - Switch to 2. control parameter set (inverted) 152 - Set I channel in controller to 0 (inverted) 153 - Start timer 1 (inverted) 154 - Start timer 2 (inverted) 155 - Start timer 3 (inverted) 156 - Start timer 4 (inverted)	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
67				P082	IN1C	Function Digital Input 1 Zone	0	255	0	157 - Switch to 2. control parameter set / actual value of control = measured value 2 (inverted) 158 - Deactivate Smart Power Limitation (SPL) (inverted) 159 - Activate process monitoring (inverted) 160 - Start learning phase of process monitoring (inverted) 161 - Degree of operation absolute reduction to 2. setpoint value (inverted) 162 - Degree of operation absolute reduction to 3. setpoint value (inverted) 163 - Degree of operation absolute reduction to 4. setpoint value (inverted) 164 - Degree of operation relative reduction by 2. setpoint value (inverted) 165 - Degree of operation relative reduction by 3. setpoint value (inverted) 166 - Degree of operation relative reduction by 4. setpoint value (inverted) 167 - Degree of operation relative increase by 2. setpoint value (inverted) 168 - Degree of operation relative increase by 3. setpoint value (inverted) 169 - Degree of operation relative increase by 4. setpoint value (inverted)	1		RW
67				P082	IN1C	Function Digital Input 1 Zone	0	255	0	170 - Cancel Heating limitation of degree of operation for zones in control mode (inverted) 171 - Absolute reduction to 2. setpoint value without cooling (energy saving option) (inverted) 172 - Relative reduction to 2. setpoint value without cooling (energy saving option) (inverted) 173-255 <n.a.>	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
68				P083	IN2C	Function Digital Input 2 Zone	0	255	0	0 - Without function 1 - Absolute reduction to 2. setpoint value 2 - Absolute reduction to 3. setpoint value 3 - Absolute reduction to 4. setpoint value 4 - Relative reduction by 2. setpoint value 5 - Relative reduction by 3. setpoint value 6 - Relative reduction by 4. setpoint value 7 - Relative increase by 2. setpoint value 8 - Relative increase by 3. setpoint value 9 - Relative increase by 4. setpoint value 10 - Percentage reduction/increase by 2. setpoint value 11 - Percentage reduction/increase by 3. setpoint value 12 - Percentage reduction/increase by 4. setpoint value 13 - Absolute reduction to 2. setpoint value, if $2SV < SV$ 14 - Absolute reduction to 3. setpoint value, if $3SV < SV$ 15 - Absolute reduction to 4. setpoint value, if $4SV < SV$ 16 - Disconnect actuator 17 - Passivate zone 18 - Activate input block 19 - Reset-acknowledge zone alarms	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
68				P083	IN2C	Function Digital Input 2 Zone	0	255	0	20 - Reset-acknowledge all alarms 21 - Output degree of operation of 100% for 10 sec 22 - Bypass group release 23 - Switch to 2. control parameter set 24 - Set 1 channel in controller to 0 25 - Start timer 1 26 - Start timer 2 27 - Start timer 3 28 - Start timer 4 29 - Switch to 2. control parameter set / actual value of control = measured value 2 30 - Deactivate Smart Power Limitation (SPL) 31 - Activate process monitoring 32 - Start learning phase of process monitoring 33 - Degree of operation absolute reduction to 2. setpoint value 34 - Degree of operation absolute reduction to 3. setpoint value 35 - Degree of operation absolute reduction to 4. setpoint value 36 - Degree of operation relative reduction by 2. setpoint value 37 - Degree of operation relative reduction by 3. setpoint value 38 - Degree of operation relative reduction by 4. setpoint value 39 - Degree of operation relative increase by 2. setpoint value	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
68				P083	IN2C	Function Digital Input 2 Zone	0	255	0	40 - Degree of operation relative increase by 3. setpoint value 41 - Degree of operation relative increase by 4. setpoint value 42 - Cancel Heating limitation of degree of operation for zones in control mode 43 - Absolute reduction to 2. setpoint value without cooling (energy saving option) 44 - Relative reduction to 2. setpoint value without cooling (energy saving option) 45-128 - <n.a.> 129 - Absolute reduction to 2. setpoint value (inverted) 130 - Absolute reduction to 3. setpoint value (inverted) 131 - Absolute reduction to 4. setpoint value (inverted) 132 - Relative reduction by 2. setpoint value (inverted) 133 - Relative reduction by 3. setpoint value (inverted) 134 - Relative reduction by 4. setpoint value (inverted) 135 - Relative increase by 2. setpoint value (inverted) 136 - Relative increase by 3. setpoint value (inverted) 137 - Relative increase by 4. setpoint value (inverted) 138 - Percentage reduction/increase by 2. setpoint value (inverted)	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
68				P083	IN2C	Function Digital Input 2 Zone	0	255	0	140 - Percentage reduction/increase by 4. setpoint value (inverted) 141 - Absolute reduction to 2. setpoint value, if 2SV<SV (inverted) 142 - Absolute reduction to 3. setpoint value, if 3SV<SV (inverted) 143 - Absolute reduction to 4. setpoint value, if 4SV<SV (inverted) 144 - Disconnect actuator (inverted) 145 - Passivate zone (inverted) 146 - Activate input block (inverted) 147 - Reset-acknowledge zone alarms (inverted) 148 - Reset-acknowledge all alarms (inverted) 149 - Degree of operation of boost (100%) of 10 sec (inverted) 150 - Bypass group release (inverted) 151 - Switch to 2. control parameter set (inverted) 152 - Set I channel in controller to 0 (inverted) 153 - Start timer 1 (inverted) 154 - Start timer 2 (inverted) 155 - Start timer 3 (inverted) 156 - Start timer 4 (inverted)	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
68				P083	IN2C	Function Digital Input 2 Zone	0	255	0	157 - Switch to 2. control parameter set / actual value of control = measured value 2 (inverted) 158 - Deactivate Smart Power Limitation (SPL) (inverted) 159 - Activate process monitoring (inverted) 160 - Start learning phase of process monitoring (inverted) 161 - Degree of operation absolute reduction to 2. setpoint value (inverted) 162 - Degree of operation absolute reduction to 3. setpoint value (inverted) 163 - Degree of operation absolute reduction to 4. setpoint value (inverted) 164 - Degree of operation relative reduction by 2. setpoint value (inverted) 165 - Degree of operation relative reduction by 3. setpoint value (inverted) 166 - Degree of operation relative reduction by 4. setpoint value (inverted) 167 - Degree of operation relative increase by 2. setpoint value (inverted) 168 - Degree of operation relative increase by 3. setpoint value (inverted) 169 - Degree of operation relative increase by 4. setpoint value (inverted)	1		RW
68				P083	IN2C	Function Digital Input 2 Zone	0	255	0	170 - Cancel Heating limitation of degree of operation for zones in control mode (inverted) 171 - Absolute reduction to 2. setpoint value without cooling (energy saving option) (inverted) 172 - Relative reduction to 2. setpoint value without cooling (energy saving option) (inverted) 173-255 <n.a.>	1		RW
69				P084	GPIN	Digital Input Group	0	32	0		1		RW
70				S052		Channel Mode 1	0	255	0x01	0x01 - Zone 0x02 - Identification Cooling 0x04 - Relay Heating 0x08 - Relay Cooling 0x10 - Sensor Monitoring 0x20 - Manual Mode after Sensor Break 0x40 - Manual Mode 0x80 - Automatic ramp	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
71				S053		Channel Mode 2	0	255	0x01	0x01 - Identification Heating 0x02 - Loop control at Identification 0x04 - Cooling Ident. after Heating 0x08 - Cooling Parameter fixed (Heating Identification) 0x10 - Pulse Cooling 0x20 - Heat 'n' Dry 0x40 - <n.a.> 0x80 - <n.a.>	1		RW
72				S054		Channel Mode 3	0	255	0x01	0x01 - <n.a.> 0x02 - <n.a.> 0x04 - <n.a.> 0x08 - <n.a.> 0x10 - <n.a.> 0x20 - <n.a.> 0x40 - <n.a.> 0x80 - <n.a.>	1		RW
73				S055		Channel Mode 4	0	255	0x01	0x01 - <n.a.> 0x02 - <n.a.> 0x04 - <n.a.> 0x08 - <n.a.> 0x10 - <n.a.> 0x20 - <n.a.> 0x40 - <n.a.> 0x80 - <n.a.>	1		RW
74				S056		Channel Mode 5	0	255	0x01	0x01 - <n.a.> 0x02 - <n.a.> 0x04 - <n.a.> 0x08 - <n.a.> 0x10 - <n.a.> 0x20 - <n.a.> 0x40 - <n.a.> 0x80 - <n.a.>	1		RW
75				S057		Channel Mode 6	0	255	0x01	0x01 - <n.a.> 0x02 - <n.a.> 0x04 - <n.a.> 0x08 - <n.a.> 0x10 - <n.a.> 0x20 - <n.a.> 0x40 - <n.a.> 0x80 - <n.a.>	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
76				S058		Channel Mode 7	0	255	0x01	0x01 - <n.a.> 0x02 - <n.a.> 0x04 - <n.a.> 0x08 - <n.a.> 0x10 - <n.a.> 0x20 - <n.a.> 0x40 - <n.a.> 0x80 - <n.a.>	1		RW
77				S059		Channel Mode 8	0	255	0x01	0x01 - <n.a.> 0x02 - <n.a.> 0x04 - <n.a.> 0x08 - <n.a.> 0x10 - <n.a.> 0x20 - <n.a.> 0x40 - <n.a.> 0x80 - <n.a.>	1		RW
78				PV06		Channel Flag 1	0	255	0x01	0x01 - Sensor Incorrect Polarity Sensor 2 0x02 - Sensor Break Sensor 2 0x04 - Thyristor alarm (-) 0x08 - Current tolerance alarm (CTA) 0x10 - Temperature alarm 0x20 - Sensor short-circuit 0x40 - Sensor incorrect polarity 0x80 - Sensor break	1		RO
79				PV07		Channel Flag 2	0	255	0x01	0x01 - Limit Value 1 0x02 - Limit Value 2 0x04 - Limit Value 3 0x08 - Limit Value 4 0x10 - Limit Value 5 0x20 - Limit Value 6 0x40 - Limit Value Plus 0x80 - Limit Value Minus	1		RO
80				PV08		Channel Flag 3	0	255	0x01	0x01 - Alarm 1 0x02 - Alarm 2 0x04 - Alarm 3 0x08 - Alarm 4 0x10 - System alarm 1 0x20 - System alarm 2 0x40 - System alarm 3 0x80 - System alarm 4	1		RO

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
81				PV09		Channel Flag 4	0	255	0x01	0x01 - Zone Input 1 0x02 - Zone Input 2 0x04 - System Input 1 0x08 - System Input 2 0x10 - Reduction 1 0x20 - Reduction 2 0x40 - Software reduction 1 0x80 - Software reduction 2	1		RO
82				PV10		Channel Flag 5	0	255	0x01	0x01 - Timer 1 active 0x02 - Timer 2 active 0x04 - Timer 3 active 0x08 - Timer 4 active 0x10 - Automatic ramp 0x20 - CAN Error Measured Value 1 0x40 - CAN Error Measured Value 2 0x80 - Fan alarm/heat sink temperature	1		RO
83				PV11		Channel Flag 6	0	255	0x01	0x01 - Setpoint value reached 0x02 - Heating Identification 0x04 - Cooling Identification 0x08 - Manual ramp active 0x10 - Actuator deactivated 0x20 - Actuator deactivated by limit value 0x40 - 2. Control parameter set 0x80 - Leading zone active	1		RO
84				PV12		Channel Flag 7	0	255	0x01	0x01 - Group Release 0x02 - Group wide reduction 0x04 - Error in configuration table CANCT 0x08 - Slave interface error CANCT 0x10 - Smart Power Limitation (SPL) inactive 0x20 - Start-up operation by timer 0x40 - Zone passive 0x80 - Zone in control mode	1		RO
85				PV13		Channel Flag 8	0	255	0x01	0x01 - System data error 0x02 - Channel data error 0x04 - Leakage current error CANPC 0x08 - Potential error CANTC 0x10 - Phase error CANPC 0x20 - IKMAX error CANPC 0x40 - Limit value band at start-up operation o.k. 0x80 - Error CANPC	1		RO

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
86				PV14		Channel Flag 9	0	255	0x01	0x01 - Identification Heating o.k. 0x02 - Cooling Identification o.k. 0x04 - System Input 3 0x08 - System Input 4 0x10 - System Input 5 0x20 - System Input 6 0x40 - System Input 7 0x80 - System Input 8	1		RO
87				PV15		Channel Flag 10	0	255	0x01	0x01 - Heat sink temperature limit value 0x02 - Fuse defective HPC 0x04 - Phase error HPC 0x08 - <n.a.> 0x10 - <n.a.> 0x20 - <n.a.> 0x40 - <n.a.> 0x80 - <n.a.>	1		RO
88				P085	t1	Timer 1	0	9999	0		1	s	RW
89				P086	t1D1	Timer 1 Definition 1	0	25	0	0 – OFF – Without function 1 - A – Auto start after Reset 2 – A .1 – Auto start after reset Starts timer 1, if elapsed 3 – A .2 – Auto start after reset Starts timer 2, if elapsed 4 – A .3 – Auto start after reset Starts timer 3, if elapsed 5 – A .4 – Auto start after reset Starts timer 4, if elapsed 6 – AL.1 – Auto start after reset + band; Starts timer 1, if elapsed 7 – AL.2 – Auto start after reset + band; Starts timer 2, if elapsed 8 – AL.3 – Auto start after reset + band; Starts timer 3, if elapsed 9 – AL.4 – Auto start after reset + band; Starts timer 4, if elapsed 10 – AL. - Auto start after reset + band 11 - .1 – No auto start; Starts timer 1, if elapsed 12 - .2 - No auto start; Starts timer 2, if elapsed 13 - .3 – No auto start; Starts timer 3, if elapsed	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
89				P086	t1D1	Timer 1 Definition 1	0	25	0	14 - .4 – No auto start; Starts timer 4, if elapsed 15 – IN. – Starts by input 16 – AA. – Auto start with conditions of start-up mode – Auto start with conditions of start-up mode. 17 – AA.1 – Auto start with conditions of start-up mode; Starts timer 1, if elapsed 18 – AA.2 – Auto start with conditions of start-up mode; Starts timer 2, if elapsed 19 – AA.3 – Auto start with conditions of start-up mode; Starts timer 3, if elapsed 20 – AA.4 – Auto start with conditions of start-up mode; Starts timer 4, if elapsed 21 – L.1 – No auto start after reset + band Starts timer 1, if elapsed 22 – L.2 – No auto start after reset + band Starts timer 2, if elapsed 23 – L.3 – No auto start after reset + band Starts timer 3, if elapsed 24 – L.4 – No auto start after reset + band Starts timer 4, if elapsed 25 - L. - No auto start after reset + band	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
90				P087	t1D2	Timer 1 Definition 2	0	18	0	0 – OFF – Without function 1 – P.0 – Passivate control system 2 – P.1 – Activate control system 3 – S2.A – Absolute setpoint value 2 4 – S3.A – Absolute setpoint value 3 5 – S4.A – Absolute setpoint value 4 6 – S2.+ - Increase set point value 2 relative 7 – S3.+ - Increase set point value 3 relative 8 – S4.+ - Increase set point value 4 relative 9 – S2.- - Reduce set point value 2 relative 10 – S3.- - Reduce set point value 3 relative 11 – S4.- - Reduce set point value 4 relative 12 – S2.p – Increase set point value 2 relative percentage 13 – S3.p – Increase set point value 3 relative percentage 14 – S4.p – Increase set point value 4 relative percentage 15 - Disconnect actuator 16 - Switch to 2. control parameter set 17 - Output degree of operation of 100% for 10 sec 18 - Activate input block 19 - H.0 – Switch off Heating output 20 – H.1 – Switch on Heating output 21 – C.0 – Switch off Cooling output 22 – C.1 – Switch on Cooling output	1		RW
91				P088	t2	Timer 2	0	9999	0		1	s	RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
92				P089	t2D1	Timer 2 Definition 1	0	25	0	0 – OFF – Without function 1 - A – Auto start after Reset 2 – A .1 – Auto start after reset Starts timer 1, if elapsed 3 – A .2 – Auto start after reset Starts timer 2, if elapsed 4 – A .3 – Auto start after reset Starts timer 3, if elapsed 5 – A .4 – Auto start after reset Starts timer 4, if elapsed 6 – AL.1 – Auto start after reset + band; Starts timer 1, if elapsed 7 – AL.2 – Auto start after reset + band; Starts timer 2, if elapsed 8 – AL.3 – Auto start after reset + band; Starts timer 3, if elapsed 9 – AL.4 – Auto start after reset + band; Starts timer 4, if elapsed 10 – AL. - Auto start after reset + band 11 - .1 – No auto start; Starts timer 1, if elapsed 12 - .2 – No auto start; Starts timer 2, if elapsed 13 - .3 – No auto start; Starts timer 3, if elapsed	1		RW
92				P089	t2D1	Timer 2 Definition 1	0	25	0	14 - .4 – No auto start; Starts timer 4, if elapsed 15 – IN. – Starts by input 16 – AA. – Auto start with conditions of start-up mode – Auto start with conditions of start-up mode. 17 – AA.1 – Auto start with conditions of start-up mode; Starts timer 1, if elapsed 18 – AA.2 – Auto start with conditions of start-up mode; Starts timer 2, if elapsed 19 – AA.3 – Auto start with conditions of start-up mode; Starts timer 3, if elapsed 20 – AA.4 – Auto start with conditions of start-up mode; Starts timer 4, if elapsed 21 – L.1 – No auto start after reset + band Starts timer 1, if elapsed 22 – L.2 – No auto start after reset + band Starts timer 2, if elapsed 23 – L.3 – No auto start after reset + band Starts timer 3, if elapsed 24 – L.4 – No auto start after reset + band Starts timer 4, if elapsed 25 - L. - No auto start after reset + band	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
93				P090	t2D2	Timer 2 Definition 2	0	18	0	0 – OFF – Without function 1 – P.0 – Passivate control system 2 – P.I – Activate control system 3 – S2.A – Absolute setpoint value 2 4 – S3.A – Absolute setpoint value 3 5 – S4.A – Absolute setpoint value 4 6 – S2.+ - Increase set point value 2 relative 7 – S3.+ - Increase set point value 3 relative 8 – S4.+ - Increase set point value 4 relative 9 – S2.- - Reduce set point value 2 relative 10 – S3.- - Reduce set point value 3 relative 11 – S4.- - Reduce set point value 4 relative 12 – S2.p – Increase set point value 2 relative percentage 13 – S3.p – Increase set point value 3 relative percentage 14 – S4.p – Increase set point value 4 relative percentage 15 - Disconnect actuator 16 - Switch to 2. control parameter set 17 - Output degree of operation of 100% for 10 sec 18 - Activate input block 19 - H.0 – Switch off Heating output 20 – H.I – Switch on Heating output 21 – C.0 – Switch off Cooling output 22 – C.I – Switch on Cooling output	1		RW
94				P091	t3	Timer 3	0	9999	0		1	s	RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
95				P092	t3D1	Timer 3 Definition 1	0	25	0	0 – OFF – Without function 1 - A – Auto start after Reset 2 – A .1 – Auto start after reset Starts timer 1, if elapsed 3 – A .2 – Auto start after reset Starts timer 2, if elapsed 4 – A .3 – Auto start after reset Starts timer 3, if elapsed 5 – A .4 – Auto start after reset Starts timer 4, if elapsed 6 – AL.1 – Auto start after reset + band; Starts timer 1, if elapsed 7 – AL.2 – Auto start after reset + band; Starts timer 2, if elapsed 8 – AL.3 – Auto start after reset + band; Starts timer 3, if elapsed 9 – AL.4 – Auto start after reset + band; Starts timer 4, if elapsed 10 – AL. - Auto start after reset + band 11 - .1 – No auto start; Starts timer 1, if elapsed 12 - .2 – No auto start; Starts timer 2, if elapsed 13 - .3 – No auto start; Starts timer 3, if elapsed	1		RW
95				P092	t3D1	Timer 3 Definition 1	0	25	0	14 - .4 – No auto start; Starts timer 4, if elapsed 15 – IN. – Starts by input 16 – AA. – Auto start with conditions of start-up mode – Auto start with conditions of start-up mode. 17 – AA.1 – Auto start with conditions of start-up mode; Starts timer 1, if elapsed 18 – AA.2 – Auto start with conditions of start-up mode; Starts timer 2, if elapsed 19 – AA.3 – Auto start with conditions of start-up mode; Starts timer 3, if elapsed 20 – AA.4 – Auto start with conditions of start-up mode; Starts timer 4, if elapsed 21 – L.1 – No auto start after reset + band Starts timer 1, if elapsed 22 – L.2 – No auto start after reset + band Starts timer 2, if elapsed 23 – L.3 – No auto start after reset + band Starts timer 3, if elapsed 24 – L.4 – No auto start after reset + band Starts timer 4, if elapsed 25 - L. - No auto start after reset + band	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
96				P093	t3D2	Timer 3 Definition 2	0	18	0	0 – OFF – Without function 1 – P.0 – Passivate control system 2 – P.I – Activate control system 3 – S2.A – Absolute setpoint value 2 4 – S3.A – Absolute setpoint value 3 5 – S4.A – Absolute setpoint value 4 6 – S2.+ - Increase set point value 2 relative 7 – S3.+ - Increase set point value 3 relative 8 – S4.+ - Increase set point value 4 relative 9 – S2.- - Reduce set point value 2 relative 10 – S3.- - Reduce set point value 3 relative 11 – S4.- - Reduce set point value 4 relative 12 – S2.p – Increase set point value 2 relative percentage 13 – S3.p – Increase set point value 3 relative percentage 14 – S4.p – Increase set point value 4 relative percentage 15 - Disconnect actuator 16 - Switch to 2. control parameter set 17 - Output degree of operation of 100% for 10 sec 18 - Activate input block 19 - H.0 – Switch off Heating output 20 – H.I – Switch on Heating output 21 – C.0 – Switch off Cooling output 22 – C.I – Switch on Cooling output	1		RW
97				P094	t4	Timer 4	0	9999	0		1	s	RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
98				P095	t4D1	Timer 4 Definition 1	0	25	0	0 – OFF – Without function 1 - A – Auto start after Reset 2 – A .1 – Auto start after reset Starts timer 1, if elapsed 3 – A .2 – Auto start after reset Starts timer 2, if elapsed 4 – A .3 – Auto start after reset Starts timer 3, if elapsed 5 – A .4 – Auto start after reset Starts timer 4, if elapsed 6 – AL.1 – Auto start after reset + band; Starts timer 1, if elapsed 7 – AL.2 – Auto start after reset + band; Starts timer 2, if elapsed 8 – AL.3 – Auto start after reset + band; Starts timer 3, if elapsed 9 – AL.4 – Auto start after reset + band; Starts timer 4, if elapsed 10 – AL. - Auto start after reset + band 11 - .1 – No auto start; Starts timer 1, if elapsed 12 - .2 – No auto start; Starts timer 2, if elapsed 13 - .3 – No auto start; Starts timer 3, if elapsed	1		RW
98				P095	t4D1	Timer 4 Definition 1	0	25	0	14 - .4 – No auto start; Starts timer 4, if elapsed 15 – IN. – Starts by input 16 – AA. – Auto start with conditions of start-up mode – Auto start with conditions of start-up mode. 17 – AA.1 – Auto start with conditions of start-up mode; Starts timer 1, if elapsed 18 – AA.2 – Auto start with conditions of start-up mode; Starts timer 2, if elapsed 19 – AA.3 – Auto start with conditions of start-up mode; Starts timer 3, if elapsed 20 – AA.4 – Auto start with conditions of start-up mode; Starts timer 4, if elapsed 21 – L.1 – No auto start after reset + band Starts timer 1, if elapsed 22 – L.2 – No auto start after reset + band Starts timer 2, if elapsed 23 – L.3 – No auto start after reset + band Starts timer 3, if elapsed 24 – L.4 – No auto start after reset + band Starts timer 4, if elapsed 25 - L. - No auto start after reset + band	1		RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
99				P096	t4D2	Timer 4 Definition 2	0	18	0	0 – OFF – Without function 1 – P.0 – Passivate control system 2 – P.I – Activate control system 3 – S2.A – Absolute setpoint value 2 4 – S3.A – Absolute setpoint value 3 5 – S4.A – Absolute setpoint value 4 6 – S2.+ - Increase set point value 2 relative 7 – S3.+ - Increase set point value 3 relative 8 – S4.+ - Increase set point value 4 relative 9 – S2.- - Reduce set point value 2 relative 10 – S3.- - Reduce set point value 3 relative 11 – S4.- - Reduce set point value 4 relative 12 – S2.p – Increase set point value 2 relative percentage 13 – S3.p – Increase set point value 3 relative percentage 14 – S4.p – Increase set point value 4 relative percentage 15 - Disconnect actuator 16 - Switch to 2. control parameter set 17 - Output degree of operation of 100% for 10 sec 18 - Activate input block 19 - H.0 – Switch off Heating output 20 – H.I – Switch on Heating output 21 – C.0 – Switch off Cooling output 22 – C.I – Switch on Cooling output	1		RW
100				PV02		Controlled Actual Value	-350	19999			10	°C/°F	RO
101				P008	SEnC	Actual value of control	0	4	0	0 - Measured value 1 1 - Measured value 2 2 – Measured value 1- measured value 2 3 – Measured value 1 = actual value of control / measured value 2 = Max. temp. alarm 4 - Measured value 1 = actual value of control / measured value 2 = Max. temp. alarm+limit value	1		RW
102				S048		Actual value 1	-350	19999			10	°C/°F	RO
103				S049		Actual value 2	-350	19999			10	°C/°F	RO
104				PV04		Current	0	9990			10	A	RO
105				S050		Current OFF	0	9990			10	A	RO

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
106				S051		Current ON	0	9990			10	A	RO
107				PV24		Active Process Timer 1	0	9999			1	s	RO
108				PV25		Active Process Timer 2	0	9999			1	s	RO
109				PV26		Active Process Timer 3	0	9999			1	s	RO
110				PV27		Active Process Timer 4	0	9999			1	s	RO
111				PV16		Heating Proportional Band active	0	255			10	%	RO
112				PV17		Heating Derivative Time Active	0	999			1	s	RO
113				PV18		Heating Integral Time Active	0	999			1	s	RO
114				PV19		Heating Sampling Time Active	0	900			10	s	RO
115				PV20		Cooling Proportional Band active	0	255			10	%	RO
116				PV21		Cooling Derivative Time Active	0	999			1	s	RO
117				PV22		Cooling Integral Time Active	0	999			1	s	RO
118				PV23		Cooling Sampling Time Active	0	900			10	s	RO

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
119				S046		Zone Mode	0	255	0 x 80	Bit 0x80 = Zone active 0 – Blank 1 – MA (Manual mode) 2 – tCP (Sensor break) 3 – tCb (Sensor polarity) 4 – die (Error at identification) 5 – dri (Drift error at Id.) 6 – Id (Heating Ident.) 7 – IdC (Cooling Indent.) 8 – IdS (Cooling Adapt. Auto start) 9 – AL (Temperature alarm) 10 – rAP (Manual temp. ramp) 11- SP2 (2.Setpoint value abs.) 12 – SP3 (3.Setpoint value abs.) 13 – SP4 (4.Setpoint value abs.) 14 – SP2 (2.Setpoint value relp.) 15 – SP3 (3.Setpoint value relp.) 16 – SP4 (4.Setpoint value relp.) 17 – SP2 (2.Setpoint value relm.) 18 – SP3 (3.Setpoint value relm.) 19 – SP4 (4.Setpoint value relm.)	1		RO
119				S046		Zone Mode	0	255	0 x 80	20 – FAL (Sensor Short circuit) 21 – LiO (Limit Off (Limit value has disconnected actuator)) 22 – SP2 (2.Setpoint value abs., if less) 23 – SP3 (3.Setpoint value abs., if less) 24 – SP4 (4.Setpoint value abs., if less) 25 – SP2 (2.setpoint value perc.) 26 – SP3 (3.setpoint value perc.) 27 – SP4 (4.setpoint value perc.) 28 – Out (Actuator disconnected) 29 – CoU (Zone following) 30 – ArE (ARMP error) 31 – ArE. (ARMP error) 32 – Ar (Automatic ramp active) 33 – Ar. Automatic ramp active/slow zone) 34 – Can (FCAN interface error) 35 – CtC (CFG error CANCT) 36 – Ctb (BUS error CANCT) 37 – GPO (Bypass group release) 38 – GP (Group is locked/not locked) 39 – GPL (Bypass group release reduction (Lower))	1		RO

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
119				S046		Zone Mode	0	255	0 x 80	40 – ERR (Channel data error) 41 – SYS (System data error) 42 – (Blank) 43 – 000 44 – 001 45 – 002 46 – 003 47 – 004 48 – 005 49 – 006 50 – 007 51 – 008 52 – 009 53 – 010 (Read error MMC) 54 – 011 (Write error MMC) 55 – LdE (Hex load active error) 56 – Ld (Hex load active)	1		RO
120				S060		Control Byte	0	255		0x01 - Read system data from EEPROM 0x02 - System data into EEPROM 0x04 - <n.a.> 0x08 - Read channel data from EEPROM 0x10 - Channel data into EEPROM 0x20 - <n.a.> 0x40 - Current transfer all channels 0x80 - Reset-acknowledge persistent/stored alarms	1		RW
121				P039	KNr	Cascade - Zone Number of Main Controller	0	128	0		1		RW
122				P040	KSP-	Cascade - Setpoint Value of Auxiliary Controller for Degree of Operation =0/-100%	-9999	9999	0		10	°C/°F	RW
123				P041	KSP+	Cascade - Setpoint Value of Auxiliary Controller for Degree of Operation =100%	-9999	9999	0		10	°C/°F	RW
124				P097	PTOL	Process Tolerance	0	100	0		1	%	RW
125				P099	POP	Operating Point of Process Monitoring	-100	100	0		1	%	RW
126				P100	OFF1	Temperature offset actual value 1	-99.9	99.9	0.0		10	K	RW
127				P101	OFF2	Temperature offset actual value 2	-99.9	99.0	0.0		10	K	RW
128				P102	FCON	Forced Cooling ON	0	999	0		1	s	RW

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
129				P103	FCDD	Forced Cooling Cycle Duration	0.0	99.9	0.0		10	h	RW
131				P104	Cur%	Scaling of Heating Current	0	255	100		1		RW
	1	Channel Mode 1		P006	ZONE	CM Zone	0	1	on	oFF, on	1		RW
	2	Channel Mode 1		P037	IDEC	CM Cooling Identification	0	1	on	oFF, on	1		RW
	3	Channel Mode 1		P026	RELH	CM Heating Relay Output	0	1	oFF	oFF, on	1		RW
	4	Channel Mode 1		P027	RELC	CM Cooling Relay Output	0	1	on	oFF, on	1		RW
	5	Channel Mode 1		P014	TCAL	CM Sensor Monitoring	0	1	oFF	oFF, on	1		RW
	6	Channel Mode 1		P016	TC-A	CM Manual Mode after Sensor Break	0	1	oFF	oFF, on	1		RW
	7	Channel Mode 1		P003	MANU	CM Manual Mode	0	1	oFF	oFF, on	1		RW
	8	Channel Mode 1		P018	ARMP	CM Automatic Ramp	0	1	oFF	oFF, on	1		RW
	9	Channel Mode 2		P032	IDEH	CM Heating Identification	0	1	on	oFF, on	1		RW
	10	Channel Mode 2		P033	IDEL	CM Loop Control at Identification	0	1	on		1		RW
	11	Channel Mode 2		P034	IDCH	CM Cooling Identification after Heating Identification	0	1	oFF	oFF, on	1		RW
	12	Channel Mode 2		P036	CFIX	CM Cooling Parameter Fixed (Identification Heating)	0	1	oFF	oFF, on	1		RW
	13	Channel Mode 2		P028	PCLG	CM Pulse Cooling	0	1	oFF	oFF, on	1		RW
	14	Channel Mode 2		P098	HnD	CM Heat 'n' Dry	0	1	oFF	oFF, on	1		RW
	33					CF Sensor Incorrect Polarity Sensor 2	0	1					
	34					CF Sensor Break Sensor 2	0	1					
	35					CF Thyristor alarm (I-)	0	1					
	36					CF Current tolerance alarm (CTA)	0	1					
	37					CF Temperature Alarm	0	1					
	38					CF Sensor short-circuit SAL	0	1					

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
	39					CF Sensor Incorrect Polarity Sensor 1	0	1					
	40					CF Sensor Break Sensor 1	0	1					
	41					CF Limit Value 1	0	1					
	42					CF Limit Value 2	0	1					
	43					CF Limit Value 3	0	1					
	44					CF Limit Value 4	0	1					
	45					CF Limit Value 5	0	1					
	46					CF Limit Value 6	0	1					
	47					CF Limit Value Plus	0	1					
	48					CF Limit Value Minus	0	1					
	49	Modbus, Modbus/TCP				CF Alarm 1	0	1					
	50					CF Alarm 2	0	1					
	51					CF Alarm 3	0	1					
	52					CF Alarm 4	0	1					
	53					CF System Alarm 1	0	1					
	54					CF System Alarm 2	0	1					
	55					CF System Alarm 3	0	1					
	56					CF System Alarm 4	0	1					
	57					CF Zone Input 1	0	1					
	58					CF Zone Input 2	0	1					
	59					CF System Input 1	0	1					
	60					CF System Input 2	0	1					

Word-Table	Bit-Table	Register name	BitNo	Designation/ Characteristic analog	Designation/ Mnemonic	Long text	Min	Max	Default	List of value	Factor	Unit	R/W
	61					CF Reduction 1	0	1					
	62					CF Reduction 2	0	1					
	63					CF Reduction by Software 1	0	1					
	64					CF Reduction by Software 2	0	1					
	65					CF Timer 1 Active	0	1					
	66					CF Timer 2 Active	0	1					
	67					CF Timer 3 Active	0	1					
	68					CF Timer 4 Active	0	1					
	69					CF Automatic Ramp	0	1					
	70					CF CAN Error Measured Value 1	0	1					
	71					CF CAN Error Measured Value 2	0	1					
	72					CF Fan Alarm/Heat Sink Temperature	0	1					

Glossary

Parameters	Meaning	Possible displays
Word-Table and/or Bit-Table	Decimal display, Index in Word- and/or Bit-Table	
Register name	Name for byte and/or word, where 1 bit is addressed	
BitNo	Bit number 0..7 and/or 0..15 in register [see register name]	
Short text	Short text, displayed on the operating and display unit	
Long text	Long text with explanation of meaning of parameters	
MIN, MAX, Default	Physical value: Minimum, Maximum, Default	
List of value	List of available values/texts	
Factor	Factor added to the input value	
Unit	Unit of value	
R/W	Parameter read / written	RW read/write
		RO read only
		WO write only

Version History

Version	Date	Changes
1.00.04	07.09.2015	[P104] added
1.00.03	10.12.2013	FAL>SAL; Fb>tCB; FP>tCP; SAA>I-; SAE>CtA; FGW>LVA; Code numbers revised; lists of values updated
1.00.02	21.02.2013	Virtual digital inputs 1-16; 17-32 added
1.00.01	05.04.2011	OFF1, OFF2, FCON, FCCD added
1.00.00	11.01.2010	First edition