600/1200/1300 MODBUS - 16 BIT MEMORY LOCATIONS (2 BYTES)

Software version V.2.01

Address	Item	Description	R/W	Min	Max	Decimal point	Default	Meas. Unit
0	**P.V.**	Process variable	R	Lo.S	Hi.S	dP.S	-	S.p.
1	**_SP**	Active setpoint	R	Lo.L	Hi.L	dP.S	-	S.p.
2	**-**	Control output	R	-100.0	100.0	1	-	%
4	**-**	Deviation (S.P. - P.V.)	R	-	-	dP.S	-	-
5	**h.Pb**	Heating proportional band	R/W	0.0	999.9	1	1.0	%
6	**c.Pb**	Cooling proportional band	R/W	0.0	999.9	1	1.0	%
7	**h.It**	Heating integral time	R/W	0.00	99.99	2	4.00	min
8	**h.dt**	Heating derivative time	R/W	0.00	99.99	2	1.00	min
9	**Ct.1**	Cycle time if Out1 = logic or relay	R/W	1	200	-	20	sec
10	**Lo.S**	Minimum limit of MAIN input scale	R/W	-1999	9999	dP.S	0	S.p.
11	**Hi.S**	Maximum limit of MAIN input scale	R/W	-1999	9999	dP.S	1000	S.p.
12	**-**	Alarm point 1 (if relative)	R/W	Lo.L (-999)	Hi.L (999)	dP.S	500	S.p.
13	**-**	Alarm point 2 (if relative)	R/W	Lo.L (-999)	Hi.L (999)	dP.S	600	S.p.
14	**-**	Alarm point 3 (if relative)	R/W	Lo.L (-999)	Hi.L (999)	dP.S	700	S.p.
16	**-**	Local setpoint	R/W	Lo.L	Hi.L	dP.S	400	S.p.
18	**SP.r**	Remote setpoint definition	R/W	0	3	-	0	-
20	**Lo.L**	Lower limit for setting setpoint and absolute alarms	R/W	Lo.S	Hi.S	dP.S	0	S.p.
21	**Hi.L**	Upper limit for setting setpoint and absolute alarms	R/W	Lo.S	Hi.S	dP.S	1000	S.p.
22	**G.SP**	Set gradient	R/W	0.0	999.9	1	0.0	digit/min
23	**oFS**	Offset correction of MAIN input	R/W	-999	999	dP.S	0	S.p.
24	**FLt**	Digital filter on input	R/W	0.0	20.0	1	0.1	sec
25	**Lo.L**	Lower limit for setting setpoint and absolute alarms	R/W	Lo.S	Hi.S	dP.S	0	S.p.
26	**Hi.L**	Upper limit for setting setpoint and	R/W	Lo.S	Hi.S	dP.S	1000	S.p.

		absolute alarms						
27	**Hy.1**	Hysteresis alarm 1	R/W	-999	999	dP.S	-1	S.p.
28	**Lo.L**	Lower limit for setting setpoint and absolute alarms	R/W	Lo.S	Hi.S	dP.S	0	S.p.
29	**Hi.L**	Upper limit for setting setpoint and absolute alarms	R/W	Lo.S	Hi.S	dP.S	1000	S.p.
30	**Hy.2**	Hysteresis alarm 2	R/W	-999	999	dP.S	-1	S.p.
31	**S.tu**	Enabling selftuning, autotuning and softstart	R/W	0	141	-	0	-
39	**c.SP**	Setpoint for cooling relative to heating setpoint	R/W	-25.0	25.0	1	0.0	%
42	**h.P.H**	Max. power limit for heating	R/W	0.0	100.0	1	100.0	%
43	**c.P.H**	Max. power limit for cooling	R/W	0.0	100.0	1	100.0	%
44	**Lb.t**	Waiting time for L.B.A. alarm intervention	R/W	0.0	500.0	1	30.0	min
45	**bAu**	Select baud rate	R/W	0	4	-	4	-
46	**Cod**	Unit identification code	R/W	0	247	-	1	-
47	**PAr**	Parity selection	R/W	0	2	-	0	-
48	**Sr.P**	Serial interface protocol	R/W	0	1	-	0	-
49	**Pro**	Protection code	R/W	0	255	-	0	-
52	**AL.3**	Alarm point 3 (if relative)	R/W	Lo.S (-999)	Hi.S (999)	dP.S	700	S.p.
53	**Hy.3**	Hysteresis alarm 3	R/W	-999	999	dP.S	-1	S.p.
54	**A3.t**	Alarm type 3	R/W	0	95	-	0	-
55	**A.Hb**	Alarm point HB	R/W	LS.2	HS.2	1	10.0	S.p.
56	**Hb.t**	Waiting time for HB alarm intervention	R/W	0	999	-	30	sec
57	**Hb.F**	HB alarm function	R/W	0	30	-	0	-
76	**c.It**	Cooling integral time	R/W	0.00	99.99	2	4.00	min
77	**c.dt**	Cooling derivative time	R/W	0.00	99.99	2	1.00	min
78	**rSt**	Manual reset	R/W	-999	999	dP.S	0	S.p.
79	**A.rS**	Antireset	R/W	0	9999	dP.S	0	S.p.
80	**FFd**	Feedforward	R/W	-100.0	100.0	1	0.0	%

85	**Err**	Self-diagnostic error code (for 1200/1300)	R	0	20 (132)	-	-	-
86	**S.00**	Step 0 custom scale	R/W	Lo.S	Hi.S	dP.S	0	S.p.
87	**S.01**	Step 1 custom scale	R/W	Lo.S	Hi.S	dP.S	31	S.p.
88	**S.02**	Step 2 custom scale	R/W	Lo.S	Hi.S	dP.S	62	S.p.
89	**S.03**	Step 3 custom scale	R/W	Lo.S	Hi.S	dP.S	94	S.p.
90	**S.04**	Step 4 custom scale	R/W	Lo.S	Hi.S	dP.S	125	S.p.
91	**S.05**	Step 5 custom scale	R/W	Lo.S	Hi.S	dP.S	156	S.p.
92	**S.06**	Step 6 custom scale	R/W	Lo.S	Hi.S	dP.S	187	S.p.
93	**S.07**	Step 7 custom scale	R/W	Lo.S	Hi.S	dP.S	219	S.p.
94	**S.08**	Step 8 custom scale	R/W	Lo.S	Hi.S	dP.S	250	S.p.
95	**S.09**	Step 9 custom scale	R/W	Lo.S	Hi.S	dP.S	281	S.p.
96	**S.10**	Step 10 custom scale	R/W	Lo.S	Hi.S	dP.S	312	S.p.
97	**S.11**	Step 11 custom scale	R/W	Lo.S	Hi.S	dP.S	344	S.p.
98	**S.12**	Step 12 custom scale	R/W	Lo.S	Hi.S	dP.S	375	S.p.
99	**S.13**	Step 13 custom scale	R/W	Lo.S	Hi.S	dP.S	406	S.p.
100	**S.14**	Step 14 custom scale	R/W	Lo.S	Hi.S	dP.S	437	S.p.
101	**S.15**	Step 15 custom scale	R/W	Lo.S	Hi.S	dP.S	469	S.p.
102	**S.16**	Step 16 custom scale	R/W	Lo.S	Hi.S	dP.S	500	S.p.
103	**S.17**	Step 17 custom scale	R/W	Lo.S	Hi.S	dP.S	531	S.p.
104	**S.18**	Step 18 custom scale	R/W	Lo.S	Hi.S	dP.S	562	S.p.
105	**S.19**	Step 19 custom scale	R/W	Lo.S	Hi.S	dP.S	594	S.p.
106	**S.20**	Step 20 custom scale	R/W	Lo.S	Hi.S	dP.S	625	S.p.
107	**S.21**	Step 21 custom scale	R/W	Lo.S	Hi.S	dP.S	656	S.p.
108	**S.22**	Step 22 custom scale	R/W	Lo.S	Hi.S	dP.S	687	S.p.
109	**S.23**	Step 23 custom scale	R/W	Lo.S	Hi.S	dP.S	719	S.p.
110	**S.24**	Step 24 custom scale	R/W	Lo.S	Hi.S	dP.S	750	S.p.
111	**S.25**	Step 25 custom scale	R/W	Lo.S	Hi.S	dP.S	781	S.p.
112	**S.26**	Step 26 custom scale	R/W	Lo.S	Hi.S	dP.S	812	S.p.
113	**S.27**	Step 27 custom scale	R/W	Lo.S	Hi.S	dP.S	844	S.p.
114	**S.28**	Step 28 custom scale	R/W	Lo.S	Hi.S	dP.S	875	S.p.
115	**S.29**	Step 29 custom scale	R/W	Lo.S	Hi.S	dP.S	906	S.p.
116	**S.30**	Step 30 custom scale	R/W	Lo.S	Hi.S	dP.S	937	S.p.
117	**S.31**	Step 31 custom scale	R/W	Lo.S	Hi.S	dP.S	969	S.p.
118	**S.32**	Step 32 custom scale	R/W	Lo.S	Hi.S	dP.S	1000	S.p.
119	**Lb.P**	Power limit for L.B.A. alarm condition	R/W	-100.0	100.0	1	25.0	%
120	**-**	Manufact trade mark (Gefran)	R	-	-	-	5000	-

121	**-**	Device ID (600)	R	-	-	-	600	-
122	**UPd**	Software Version	R	-	-	-	-	-
132	**Ou.P**	Control output	R	-100.0	100.0	1	-	%
133	**but**	Function of M/A key	R/W	0	24	-	0	-
136	**SP.r**	Remote setpoint definition	R/W	0	3	-	0	-
137	**-**	Active setpoint	R	Lo.L	Hi_L	dP.S	-	S.p.
138	**-**	Local setpoint	R/W	Lo.L	Hi_L	dP.S	400	S.p.
139	**In.2**	Auxiliary input TA	R	LS.2	HS.2	1	-	S.p.
140	**diG.**	Function of digital input	R/W	0	53	-	0	-
141	**di2.**	Function of digital input 2 (only for 1200/1300)	R/W	0	53	-	0	-
142	**Lo.L**	Lower limit for setting setpoint and absolute alarms	R/W	Lo.S	Hi.S	dP.S	0	S.p.
143	**Hi.L**	Upper limit for setting setpoint and absolute alarms	R/W	Lo.S	Hi.S	dP.S	1000	S.p.
146	**h.P.H.**	Max. power limit for heating	R/W	0.0	100.0	1	100.0	%
147	**SoF**	Softstart time	R/W	0.0	500.0	1	0.0	min
148	**h.Pb**	Heating proportional band	R/W	0.0	999.9	1	1.0	%
149	**h.Pb**	Hysteresis for heating (ON/OFF)	R/W	0.0	999.9	1	1.0	%
150	**h.It**	Heating integral time	R/W	0.00	99.99	2	4.00	min
151	**h.dt**	Heating derivative time	R/W	0.00	99.99	2	1.00	min
152	**Ct.1**	Cycle time if Out1 = logic or relay	R/W	1	200	-	20	sec
159	**Ct.2**	Cycle time if Out2 = logic or relay	R/W	1	200	-	20	sec
160	**rL.1**	Out1 allocation of reference signal	R/W	0	48	-	2	-
163	**rL.2**	Out2 allocation of reference signal	R/W	0	65	-	0	-
166	**rL.3**	Out3 allocation of reference signal	R/W	0	65	-	3	-
169	**Ct.3**	Cycle time if Out3 = logic or relay	R/W	1	200	-	20	sec
170	**rL.4**	Out4 allocation of reference signal	R/W	0	48	-	4	-

173	**Ct.4**	Cycle time if Out4 = logic or relay	R/W	1	200	-	20	sec
177	**-**	Alarm point 1 (if relative)	R/W	Lo.L (-999)	Hi.L (999)	dP.S	500	S.p.
178	**-**	Alarm point 2 (if relative)	R/W	Lo.L (-999)	Hi.L (999)	dP.S	600	S.p.
179	**FLd**	Digital filter on input display	R/W	0.0	9.9	1	0.5	S.p.
180	**Ctr**	Control type	R/W	0	78	-	6	-
187	**Hy.1**	Hysteresis alarm 1	R/W	-999	999	dP.S	-1	S.p.
188	**Hy.2**	Hysteresis alarm 2	R/W	-999	999	dP.S	-1	S.p.
189	**Hy.3**	Hysteresis alarm 3	R/W	-999	999	dP.S	-1	S.p.
190	**C.Hd**	Hardware configuration (for 1200/1300)	R	0	362 (1352)	-	-	-
191	**Hd.1**	Hardware configuration 1: multiset, reversed led state, instrument control by serial line	R/W	0	7	-	0	-
195	**AL.n**	Select number of enabled alarms	R/W	0	31	-	1	-
196	**dSP**	Defining SV display function	R/W	0	3	-	0	-
197	**Ld.1**	Function LED 1	R/W	0	28	-	1	-
198	**Ld.2**	Function LED 2	R/W	0	28	-	10	-
199	**Ld.3**	Function LED 3	R/W	0	28	-	20	-
215	**A1.r**	Select reference signal for alarm 1	R/W	0	2	-	0	-
216	**A2.r**	Select reference signal for alarm 2	R/W	0	2	-	0	-
217	**A3.r**	Select reference signal for alarm 3	R/W	0	2	-	0	-
219	**Ft.2**	Digital filter auxiliary input TA	R/W	0.0	20.0	1	0.1	sec
220	**oF.2**	Offset correction of auxiliary input TA	R/W	-999	999	1	0	S.p.
221	**L.An**	Minimum limit of analogue repetition signal output W	R/W	-1999	9999	dP.S	0	S.p.
222	**H.an**	Maximum limit of analogue repetition signal output W	R/W	-1999	9999	dP.S	1000	S.p.
223	**An.o**	Out W assignment of signal or reference value	R/W	0	16	-	0	-
224	**S.In**	Virtual instrument inputs	R/W	0	63	-	0	-
225	**S.Ou**	Virtual instrument outputs	R/W	0	31	-	0	-
226	**S.U.I**	Virtual instrument user interface	R/W0	0	255	-	0	-

227	**In.2**	Auxiliary input TA	R	LS.2	HS.2	1	-	S.p.
228	**FA.P**	Power output in fault action	R/W	-100.0	100.0	1	0.0	%
229	**rEL**	Fault action (sets state in case of probe fault)	R/W	0	7	-	0	-
230	**SP.1**	Setpoint 1	R/W	Lo.L	Hi.L	dP.S	100	p.s.
231	**SP.2**	Setpoint 2	R/W	Lo.L	Hi.L	dP.S	200	p.s.
234	**G.SP**	Set gradient	R/W	0.0	999.9	1	0.0	digit/min
249	**SP.r**	Remote setpoint definition	R/W	0	3	-	0	-
250	**-**	Remote setpoint from serial line	R/W	Lo.L	Hi.L	-	-	S.p.
251	**-**	Out W from serial line	R/W	0	65535	-	-	-
252	**-**	Control output value in manual mode	R/W	-100.0	100.0	1	-	%
254	**h.P.L**	Min. power limit for heating	R/W	0.0	100.0	1	0.0	%
255	**c.P.L**	Min. power limit for cooling	R/W	0.0	100.0	1	0.0	%
259	**-**	Auxiliary set gradient relative to SP2	R/W	0.0	999.9	1	0.0	digit/min
260	**-**	Power alarm delay time	R/W	0	999	0	0	sec
293	**S.33**	Step 33 custom scale	R/W	-1999	9999	2	0	mV
294	**S.34**	Step 34 custom scale	R/W	-1999	9999	2	0	mV
295	**S.35**	Step 35 custom scale	R/W	-1999	9999	3	0	mV
296	**-**	FLG_PID	R	0	255	-	-	-
305	**-**	STATUS_W	R/W	0	-	-	-	-
306	**-**	SK_SER_AN	R/W	0	-	-	-	-
307	**-**	VALUE_W: Out W control register in serial line	R/W	0	4095	-	-	DAC
308	**-**	X_OUTVAL	R	0	5	-	-	-
309	**-**	GRF_CNT	R	0	5	-	-	-
310	**-**	IN_ADC						
311	**-**	Instrument status: PAGE	R	-	-	-	-	-
312	**-**	Instrument status: ROW	R	-	-	-	-	-
313	**-**	Instrument status: BLOK_PNTR	R	-	-	-	-	-

314	-	Instrument status: ADD_VAR	R	-	-	-	-	-
315	-	SK_OUT2	R	-	-	-	-	-
316	-	SK_OUT3	R	-	-	-	-	-
317	-	Digital input status: INPUT_DIG	R	0	-	-	-	-
318	-	Alarm status: ALSTATE	R	0	7	-	-	-
319	-	Output logic/relays status: MASKOUT	R	0	7	-	-	-
320	-	Keyboard image NEW_TAST	R/W	0	255	-	-	-
321	-	Upper display - digit 3 M	R/W	0	255	-	-	-
322	-	Upper display - digit 2 C	R/W	0	255	-	-	-
323	-	Upper display - digit 1 D	R/W	0	255	-	-	-
324	-	Upper display - digit 0 U	R/W	0	255	-	-	-
325	-	Lower display - digit 3 M	R/W	0	255	-	-	-
326	-	Lower display - digit 2 C	R/W	0	255	-	-	-
327	-	Lower display - digit 1 D	R/W	0	255	-	-	-
328	-	Lower display - digit 0 U	R/W	0	255	-	-	-
329	-	Display - 7 led	R	0	255	-	-	-
334	-	FAD_AUX	R	0	65535	-	-	ADC
337	-	FAD_SOND	R	0	65535	-	-	ADC
338	-	FAD_TAMB	R	0	65535	-	-	ADC
339	-	FAD_ZERO	R	0	65535	-	-	ADC
340	-	FAD_50	R	0	65535	-	-	ADC
341	-	Alarm 1 from serial line	R/W	Lo.L	Hi.L	dP.S	0	S.p.
342	-	Alarm 2 from serial line	R/W	Lo.L	Hi.L	dP.S	0	S.p.
343	-	Alarm 3 from serial line	R/W	Lo.L	Hi.L	dP.S	0	S.p.
344	-	V_IN_OUT	R/W	0	255	-	-	-
345	-	STATUS6_W	R/W	0	255	-	-	-
346	-	STATO_JUMPER	R	0	255	-	-	-
347	-	VALUE_F	R/W	0	65535	-	-	-
348	-	VALAUX_F	R/W	0	65535	-	-	-
349	-	VAL_FILD	R	Lo.S	Hi.S	-	-	S.p.
350	-	DOT						
351	-	V_X_LEDS	R/W	-	-	-	-	-
352	-	RAM_CAL_MIN	R	0	65535	-	-	-
353	-	RAM_CAL_MAX	R	0	65535	-	-	-

354	-	RAM_CAL2_MIN	R	0	65535	-	-	-
355	-	RAM_CAL2_MAX	R	0	65535	-	-	-
356	-	BLOK_OUTWL	R	0	65535	-	-	-
357	-	BLOK_OUTWH	R	0	65535	-	-	-
358	-	BLOK_CUS10VL	R	0	65535	-	-	-
359	-	BLOK_CUS10VH	R	0	65535	-	-	-
360	-	BLOK_CUS60L	R	0	65535	-	-	-
361	-	BLOK_CUS60H	R	0	65535	-	-	-
366	-	BLOK_CUSRTDL	R	0	65535	-	-	-
367	-	BLOK_CUSRTDH	R	0	65535	-	-	-
368	-	BLOK_CUSPTCL	R	0	65535	-	-	-
369	-	BLOK_CUSPTCH	R	0	65535	-	-	-
370	-	BLOK_CUSNTCL	R	0	65535	-	-	-
371	-	BLOK_CUSNTCH	R	0	65535	-	-	-
372	-	BLOK_CUSAUXL	R	0	65535			
373	-	BLOK_CUSAUXH	R	0	65535			
376	-	BLOK_C50	R	0	65535	-	-	-
377	-	BLOK_CTA	R	0	65535	-	-	-
378	-	BLOK_PT100L	R	0	65535	-	-	-
379	-	BLOK_PT100H	R	0	65535	-	-	-
380	-	BLOK_JPT100L	R	0	65535	-	-	-
381	-	BLOK_JPT100H	R	0	65535	-	-	-
382	-	BLOK_PTCL	R	0	65535	-	-	-
383	-	BLOK_PTCH	R	0	65535	-	-	-
384	-	BLOK_NTCL	R	0	65535	-	-	-
385	-	BLOK_NTCH	R	0	65535	-	-	-
386	-	BLOK_60MVL	R	0	65535	-	-	-
387	-	BLOK_60MVH	R	0	65535	-	-	-
388	-	BLOK_20MAL	R	0	65535	-	-	-
389	-	BLOK_20MAH	R	0	65535	-	-	-
390	-	BLOK_10VL	R	0	65535	-	-	-
391	-	BLOK_10VH	R	0	65535	-	-	-
392	-	BLOK_5VL	R	0	65535	-	-	-

393	-	BLOK_5VH	R	0	65535	-	-	-
394	-	BLOK_1VL	R	0	65535	-	-	-
395	-	BLOK_1VH	R	0	65535	-	-	-
400	tyP	Probe type, signal, enable custom linearization and MAIN input scale	R/W	0	64	-	0	-
401	Lo.S	Min. limit of MAIN input scale	R/W	-1999	9999	dP.S	0	S.p.
402	Hi.S	Max. limit of MAIN input scale	R/W	-1999	9999	dP.S	1000	S.p.
403	DP.S	Decimal point position for input scale	R/W	0	3	-	0	-
404	LS.2	Min. limit auxiliary input TA scale	R/W	0.0	999.9	1	0	S.p.
405	HS2	Max. limit auxiliary input TA scale	R/W	0.0	999.9	1	1000	S.p.
406	A1.t	Alarm type 1	R/W	0	95	-	0	-
407	A2.t	Alarm type 2	R/W	0	95	-	0	-
408	A3.t	Alarm type 3	R/W	0	95	-	0	-
422	-	BLOK_GE	R	0	65535	-	-	-
423	-	BLOK_FR	R	0	65535	-	-	-
424	-	BLOK_AN	R	0	65535	-	-	-
425	-	BLOK_06	R	0	65535	-	-	-
426	-	BLOK_00	R	0	65535	-	-	-
427	-	CHK_CONF	R	0	1	-	-	-
458	-	CONF_UTENTE1	R/W	0	65535	-	-	-
459	-	CONF_UTENTE2	R/W	0	65535	-	-	-
460	-	CONF_UTENTE3	R/W	0	65535	-	-	-
461	-	CONF_UTENTE4	R/W	0	65535	-	-	-
462	-	CONF_UTENTE5	R/W	0	65535	-	-	-
508	C.H2	Hardware configuration 2 (only for 1200/1300)	R	0	771	-	-	-
509	-	MAN_PW	R/W	-100.0	100.0	1	-	%
510	-	MONITOR_STATUS	R	0	255	-	-	-
511	-	MONITOR_COUNTER	R	0	65535	-	-	-
513	C.ME	Cooling medium	R/W	0	2	-	0	-

516	**P.rS**	Reset power	R/W	-100.0	100.0	1	0.0	%
517	**-**	POWER_SET	R/W	-100.0	100.0	1	-	%
519	**oFS**	Offset correction of MAIN input	R/W	-999	999	dP.S	0	S.p.

600/1200/1300 MODBUS - BIT

Software version V.2.01

Address	Description	R/W
0	Self-Tuning active	R
1	Auto (= 0) / Manual (= 1)	R/W
3	Selftuning Stop (= 0) / Start (= 1)	R/W
4	AL1 status	R
5	AL2 status	R
8	LBA alarm status	R
9	Sensor break Sbr	R
10	Local/Remote SP	R/W
11	ON (= 0) / OFF (= 1) Software	R/W
12	Out1 status	R
13	Out2 status	R
14	Out3 status	R
15	Out4 status	R
26	HB alarm status	R
28	Autotuning active	R
29	Autotuning Stop (= 0) / Start (= 1)	R/W
36	AL3 direct/inverse	R/W
37	AL3 absolute/relative	R/W
38	AL3 normal/symmetrical	R/W
39	AL3 disabled in power on	R/W
40	AL3 with memory	R/W
46	AL1 direct/inverse	R/W
47	AL1 absolute/relative	R/W
48	AL1 normal/symmetrical	R/W
49	AL1 disabled in power on	R/W

50	AL1 with memory	R/W
54	AL2 direct/inverse	R/W
55	AL2 absolute/relative	R/W
56	AL2 normal/symmetrical	R/W
57	AL2 disabled in power on	R/W
58	AL2 with memory	R/W
62	AL3 status	R
63	Softstart active	R
64	Input of hold active	R
68	Digital 1 input status	R
69	-	-
70	-	-
71	-	-
72	Digital 2 input status (only for 1200/1300)	R
75	SP1 (= 0) / SP2 (= 1) selection	R/W
79	Alarm memory reset	R/W
80	-	-