

Beispiel Nr.1:

Die gewünschte Solltemperatur des Warmwassers soll von 60 °C auf 55 °C geändert werden. Bitte das Register 527 über GLT/BMS auslesen (erscheint '60') und anschließend diesen Wert auf '55' ändern.

Beispiel Nr.2:

Die Ansteuerung der Primärpumpe soll auf PWM=64% eingestellt werden. Bitte ändern Sie den Wert im Register 362 von 1 auf 0. Hierdurch wird der Handbetrieb für die Primärpumpe aktiviert (Automatikmodus wird deaktiviert). Schreiben Sie anschließend den Wert '640' in das Register 522, um den PWM Wert auf 64 % einzustellen.

Beispiel Nr.3:

Sie wollen erfahren, ob alle Sensoren funktionieren? Bitte lesen Sie dafür die bitcodierten Register 512 und 513 aus. Der gelesene Dezimalwert des Registers 512 ist z.B. '4' (Umrechnung in Binär '0100'). Laut der Modbus Register Dokumentation entspricht dies einem Fehler (Unterbrechung) des Sensors im Pufferspeicher ('S3').

Beispiel Nr.4:

Sie wollen die aktuellen Temperaturen am Tkw Sensor einer Kaskade von Server 1, Server 2 und Server 3 ermitteln. Lesen Sie dazu folgende Register aus: 6516, 7516 und 8516. Der ausgelesene Wert von z.B. '155' bedeutet eine Temperatur in Höhe von 15,5 °C.

Beispiel Nr.5:

Sie wollen die maximal einstellbare Warmwassersolltemperatur für den Kunden eingrenzen. Dafür loggen Sie sich über Modbus mit dem Installateur-Bedienercode ein, in dem das Register 1901 mit dem Wert 9856 / 0011 beschrieben wird. Anschließend schreiben Sie den neuen maximalen Sollwert (Bereich 60-90 °C) in das Register 1001. Zum Schluss sollte der Standard Bediener (Kunde) durch Schreiben des Wertes '0' in das Register 1901 aktiviert werden.

Bezeichnung	Bereich
Hardware	1-60
Zeit	90-99
Control parameter	100-499
Current values	500-599
Debug	600-899
Statistic	900-999
Parameter range values	1000-1099
Message - Desinfection	1100-1120
Message - Alarm history	1200-1499
Message - Parameter history	4000-4799
System parameter	1900-1999
MB3.10 system parameter	5000-5006
MB3.10 current data	5010-5060
Server 1	6013-6999
Server 2	7013-7999
Server 3	8013-8999

Bez.	Default	Ab FW	Werte
ID	64	3.0.x	1-247
Baud	38400	3.0.x	1200, 2400, 4800, 9600, 19200, 38400, 57600
Parity	Odd	1.0.3	None, even, odd
Data Bit	8	3.0.x	8, 9
Stop Bit	1	3.0.x	1, 2

Unterstützte Funktioncodes: 03, 06, 16
Anzahl gleichzeitig abzurufender Register: 125

read	Kann dieses Register gelesen werden? x: Ja -: Nein
write User	Ist dieses Register mit dem Kunden-Bedienercode änderbar? x: Ja -: Nein
write Spec.	Ist dieses Register mit dem Installateur-Bedienercode änderbar? x: Ja -: Nein

Reg.	Name	Note	Type	read	write User	write Spec.	Technical field	Ab FW	Write Interval > 12min (20Y EEPROM)	Group
1	FW Date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		2.1.4		Hardware
2	FW Time	Hour * 100 + Minute	uint16	x	-	-		2.1.4		Hardware
3	FW Version - Major release	Major release	uint16	x	-	-		2.1.4		Hardware
4	FW Version - Minor release	Minor release	uint16	x	-	-		2.1.4		Hardware
5	FW Version - patch level	Patch level	uint16	x	-	-		2.1.4		Hardware
6	FW Build Nummer		uint16	x	-	-		2.1.4		Hardware
7	PCB Version		uint16	x	-	-		2.1.4		Hardware
8	Assembly variant		uint16	x	-	-		2.1.4		Hardware
13	Bootloader FW Version - Major release	Major release	uint16	x	-	-		3.0.x		Hardware
14	Bootloader FW Version - Minor release	Minor release	uint16	x	-	-		3.0.x		Hardware
15	Bootloader FW Version - patch level	Patch level	uint16	x	-	-		3.0.x		Hardware
50	MB3.10 FW Date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		2.1.4		Hardware
51	MB3.10 FW Time	Hour * 100 + Minute	uint16	x	-	-		2.1.4		Hardware
52	MB3.10 FW Version - Major release	Major release	uint16	x	-	-		2.1.4		Hardware
53	MB3.10 FW Version - Minor release	Minor release	uint16	x	-	-		2.1.4		Hardware
54	MB3.10 FW Version - patch level	Patch level	uint16	x	-	-		2.1.4		Hardware
55	MB3.10 FW Build Nummer		uint16	x	-	-		2.1.4		Hardware
56	MB3.10 PCB Version		uint16	x	-	-		2.1.4		Hardware
57	MB3.10 Assembly variant		uint16	x	-	-		2.1.4		Hardware
58	MB3.10 Bootloader FW Version - Major release	Major release	uint16	x	-	-		3.0.x		Hardware
59	MB3.10 Bootloader FW Version - Minor release	Minor release	uint16	x	-	-		3.0.x		Hardware
60	MB3.10 Bootloader FW Version - patch level	Patch level	uint16	x	-	-		3.0.x		Hardware
90	Day		uint8	x	x	x		1.0.3		DateTime
91	Month		uint8	x	x	x		1.0.3		DateTime
92	Year	YYYY	uint16	x	x	x		1.0.3		DateTime
93	Hour		uint8	x	x	x		1.0.3		DateTime
94	Minute		uint8	x	x	x		1.0.3		DateTime
95	Second		uint8	x	x	x		1.0.3		DateTime
100	Circulation available	Default: 0 0: No 1: Yes	uint8	x	x	x		1.0.3	x	Ctrl. Para.
101	Circulation temperature mode available	Default: 0 0: No 1: Yes	uint8	x	x	x	Can the controller use the circulation temperature leaded func. No status!	1.0.3	x	Ctrl. Para.
102	Circulation time mode available	Default: 0 0: No 1: Yes	uint8	x	x	x	Can the controller use the circulation time func. No status!	1.0.3	x	Ctrl. Para.
103	Circulation on demand mode available	Default: 0 0: No 1: Yes	uint8	x	x	x	Can the controller use the circulation on demand function No status!	1.0.3	x	Ctrl. Para.
104	Circulation sensor	Value = Module ID * 10 + Sensor no. Module ID: 0: Own pin 1: Master 2: Slave 1 3: Slave 2 ... Sensor number 0: No selection 1: S1 2: S2 3: S3 4: S4		x	x	x		1.0.3	x	Ctrl. Para.
105	Circulation PWM	Default: 100% Resolution 1%	uint8	x	x	x		1.0.3	x	Ctrl. Para.
106	Circulation T mode temperature switch on	Default: 55 °C Range: T-WW-Soll min to T-Zirk. OFF - 2K Resolution 1 °C	uint8	x	x	x		1.0.3	x	Ctrl. Para.
107	Circulation T mode delta T switch off	Default: 2K Range: 2K - 10K	uint8	x	x	x		1.0.3	x	Ctrl. Para.
108	Circulation time mode	0: Time control 1: Continuous	uint16	x	x	x		1.0.3	x	Ctrl. Para.
109	Circulation on demand work time	Default: 60s Resolution 1s	uint16	x	x	x	0 - 600s	1.0.3	x	Ctrl. Para.
110	Circulation on demand break time	Default: 10min Resolution 1min	uint8	x	x	x	0 - 60 Minutes	1.0.3	x	Ctrl. Para.
111	Circulation Monday Timer 1 Start	Hour * 100 + Minute	uint16	x	x	x		1.0.3	x	Ctrl. Para.
112	Circulation Monday Timer 1 Ende	Hour * 100 + Minute	uint16	x	x	x		1.0.3	x	Ctrl. Para.
113	Circulation Monday Timer 2 Start	Hour * 100 + Minute	uint16	x	x	x		1.0.3	x	Ctrl. Para.
114	Circulation Monday Timer 2 Ende	Hour * 100 + Minute	uint16	x	x	x		1.0.3	x	Ctrl. Para.

196	Circulation Thursday Timer 1 Enabled	0: Disabled 1: Enabled	unit8	x	x	x		1.0.3	x	Ctrl. Para.
197	Circulation Thursday Timer 2 Enabled	0: Disabled 1: Enabled	unit8	x	x	x		1.0.3	x	Ctrl. Para.
198	Circulation Thursday Timer 3 Enabled	0: Disabled 1: Enabled	unit8	x	x	x		1.0.3	x	Ctrl. Para.
199	Circulation Thursday Timer 4 Enabled	0: Disabled 1: Enabled	unit8	x	x	x		1.0.3	x	Ctrl. Para.
200	Circulation Thursday Timer 5 Enabled	0: Disabled 1: Enabled	unit8	x	x	x		1.0.3	x	Ctrl. Para.
201	Circulation Friday Timer 1 Enabled	0: Disabled 1: Enabled	unit8	x	x	x		1.0.3	x	Ctrl. Para.
202	Circulation Friday Timer 2 Enabled	0: Disabled 1: Enabled	unit8	x	x	x		1.0.3	x	Ctrl. Para.
203	Circulation Friday Timer 3 Enabled	0: Disabled 1: Enabled	unit8	x	x	x		1.0.3	x	Ctrl. Para.
204	Circulation Friday Timer 4 Enabled	0: Disabled 1: Enabled	unit8	x	x	x		1.0.3	x	Ctrl. Para.
205	Circulation Friday Timer 5 Enabled	0: Disabled 1: Enabled	unit8	x	x	x		1.0.3	x	Ctrl. Para.
206	Circulation Saturday Timer 1 Enabled	0: Disabled 1: Enabled	unit8	x	x	x		1.0.3	x	Ctrl. Para.
207	Circulation Saturday Timer 2 Enabled	0: Disabled 1: Enabled	unit8	x	x	x		1.0.3	x	Ctrl. Para.
208	Circulation Saturday Timer 3 Enabled	0: Disabled 1: Enabled	unit8	x	x	x		1.0.3	x	Ctrl. Para.
209	Circulation Saturday Timer 4 Enabled	0: Disabled 1: Enabled	unit8	x	x	x		1.0.3	x	Ctrl. Para.
210	Circulation Saturday Timer 5 Enabled	0: Disabled 1: Enabled	unit8	x	x	x		1.0.3	x	Ctrl. Para.
211	Circulation Sunday Timer 1 Enabled	0: Disabled 1: Enabled	unit8	x	x	x		1.0.3	x	Ctrl. Para.
212	Circulation Sunday Timer 2 Enabled	0: Disabled 1: Enabled	unit8	x	x	x		1.0.3	x	Ctrl. Para.
213	Circulation Sunday Timer 3 Enabled	0: Disabled 1: Enabled	unit8	x	x	x		1.0.3	x	Ctrl. Para.
214	Circulation Sunday Timer 4 Enabled	0: Disabled 1: Enabled	unit8	x	x	x		1.0.3	x	Ctrl. Para.
215	Circulation Sunday Timer 5 Enabled	0: Disabled 1: Enabled	unit8	x	x	x		1.0.3	x	Ctrl. Para.
216	Stratification available	Default: 0 0: Deactivated 1: Thermostat 2: Temperature difference	uint8	x	x	x	No status!	1.0.3	x	Ctrl. Para.
217	Stratification sensor	Value = Module ID * 10 + Sensor no. Module ID: 0: Own pin 1: Master 2: Slave 1 3: Slave 2 ... Sensor number 0: No selection 1: S1 2: S2 3: S3 4: S4	uint16	x	x	x		1.0.3	x	Ctrl. Para.
218	Stratification relay	Value = Module ID * 10 + Relay no. Module ID: 0: Own pin / own controller 1: Master 2: Slave 1 3: Slave 2 ... Relay number 0: No selection 1: R1 2: R2 3: R3		x	x	x		1.0.3	x	Ctrl. Para.
220	Stratification switch on temperature	Default: 35°C Resolution 1°C	uint8	x	x	x		1.0.3	x	Ctrl. Para.
221	Stratification hysteresis	Default: 5K Resolution 1K	uint8	x	x	x		1.0.3	x	Ctrl. Para.
222	Stratification deltaT ON	Default: 10K Resolution 1K	uint8	x	x	x		1.0.3	x	Ctrl. Para.
223	Stratification deltaT OFF	Default: 6K Resolution 1K	uint8	x	x	x		1.0.3	x	Ctrl. Para.
225	Comfort function available	0: Deactive 1: Time controll 2: Continuous	uint16	x	x	x	Can the controller use the comfort function No status!	1.0.3	x	Ctrl. Para.
226	Comfort break time	Default: 10min Resolution 1min	uint8	x	x	x		1.0.3	x	Ctrl. Para.
227	Comfort deltaT	Default: 5K Range: 1-20 Resolution 1K	uint8	x	x	x		1.0.3	x	Ctrl. Para.
229	Comfort Monday Timer 1 Start	Hour * 100 + Minute	uint16	x	x	x		1.0.3	x	Ctrl. Para.
230	Comfort Monday Timer 1 Ende	Hour * 100 + Minute	uint16	x	x	x		1.0.3	x	Ctrl. Para.
231	Comfort Monday Timer 2 Start	Hour * 100 + Minute	uint16	x	x	x		1.0.3	x	Ctrl. Para.
232	Comfort Monday Timer 2 Ende	Hour * 100 + Minute	uint16	x	x	x		1.0.3	x	Ctrl. Para.
233	Comfort Monday Timer 3 Start	Hour * 100 + Minute	uint16	x	x	x		1.0.3	x	Ctrl. Para.
234	Comfort Monday Timer 3 Ende	Hour * 100 + Minute	uint16	x	x	x		1.0.3	x	Ctrl. Para.
235	Comfort Monday Timer 4 Start	Hour * 100 + Minute	uint16	x	x	x		1.0.3	x	Ctrl. Para.
236	Comfort Monday Timer 4 Ende	Hour * 100 + Minute	uint16	x	x	x		1.0.3	x	Ctrl. Para.
237	Comfort Monday Timer 5 Start	Hour * 100 + Minute	uint16	x	x	x		1.0.3	x	Ctrl. Para.

Modbus Register FC3.10

317	Comfort Thursday Timer 4 Enabled	0: Disabled 1: Enabled	unit8	x	x	x		1.0.3	x	Ctrl. Para.
318	Comfort Thursday Timer 5 Enabled	0: Disabled 1: Enabled	unit8	x	x	x		1.0.3	x	Ctrl. Para.
319	Comfort Friday Timer 1 Enabled	0: Disabled 1: Enabled	unit8	x	x	x		1.0.3	x	Ctrl. Para.
320	Comfort Friday Timer 2 Enabled	0: Disabled 1: Enabled	unit8	x	x	x		1.0.3	x	Ctrl. Para.
321	Comfort Friday Timer 3 Enabled	0: Disabled 1: Enabled	unit8	x	x	x		1.0.3	x	Ctrl. Para.
322	Comfort Friday Timer 4 Enabled	0: Disabled 1: Enabled	unit8	x	x	x		1.0.3	x	Ctrl. Para.
323	Comfort Friday Timer 5 Enabled	0: Disabled 1: Enabled	unit8	x	x	x		1.0.3	x	Ctrl. Para.
324	Comfort Saturday Timer 1 Enabled	0: Disabled 1: Enabled	unit8	x	x	x		1.0.3	x	Ctrl. Para.
325	Comfort Saturday Timer 2 Enabled	0: Disabled 1: Enabled	unit8	x	x	x		1.0.3	x	Ctrl. Para.
326	Comfort Saturday Timer 3 Enabled	0: Disabled 1: Enabled	unit8	x	x	x		1.0.3	x	Ctrl. Para.
327	Comfort Saturday Timer 4 Enabled	0: Disabled 1: Enabled	unit8	x	x	x		1.0.3	x	Ctrl. Para.
328	Comfort Saturday Timer 5 Enabled	0: Disabled 1: Enabled	unit8	x	x	x		1.0.3	x	Ctrl. Para.
329	Comfort Sunday Timer 1 Enabled	0: Disabled 1: Enabled	unit8	x	x	x		1.0.3	x	Ctrl. Para.
330	Comfort Sunday Timer 2 Enabled	0: Disabled 1: Enabled	unit8	x	x	x		1.0.3	x	Ctrl. Para.
331	Comfort Sunday Timer 3 Enabled	0: Disabled 1: Enabled	unit8	x	x	x		1.0.3	x	Ctrl. Para.
332	Comfort Sunday Timer 4 Enabled	0: Disabled 1: Enabled	unit8	x	x	x		1.0.3	x	Ctrl. Para.
333	Comfort Sunday Timer 5 Enabled	0: Disabled 1: Enabled	unit8	x	x	x		1.0.3	x	Ctrl. Para.
334	Disinfection available	0: No 1: Yes	uint16	x	x	x	Checkbox in the submenu "function" from the subitem Disinfection	1.0.3	x	Ctrl. Para.
335	Disinfection temperature	Default: 73°C Range: 60°C - 80°C Resolution 1°C	uint8	x	x	x		1.0.3	x	Ctrl. Para.
336	Disinfection start hour	Hour	uint16	x	x	x		1.0.3	x	Ctrl. Para.
337	Disinfection duration	Minutes, 10 bis 240 min	uint16	x	x	x		1.0.3	x	Ctrl. Para.
338	Disinfection OK after	Minutes	uint16	x	x	x	Disinfection OK after this time	1.0.3	x	Ctrl. Para.
339	Disinfection stop before time	Default: ??? 0: deactivated 1: activated	uint8	x	x	x	Thermal disinfection 1: When the thermal disinfection is successful, the remaining time can ignore.	1.0.3	x	Ctrl. Para.
340	Disinfection-monday-activated	0: Disabled 1: Enabled	uint16	x	x	x		1.0.3	x	Ctrl. Para.
341	Disinfection-tuesday-activated	0: Disabled 1: Enabled	uint16	x	x	x		1.0.3	x	Ctrl. Para.
342	Disinfection-wendsday-activated	0: Disabled 1: Enabled	uint16	x	x	x		1.0.3	x	Ctrl. Para.
343	Disinfection-thursday-activated	0: Disabled 1: Enabled	uint16	x	x	x		1.0.3	x	Ctrl. Para.
344	Disinfection-friday-activated	0: Disabled 1: Enabled	uint16	x	x	x		1.0.3	x	Ctrl. Para.
345	Disinfection-saturday-activated	0: Disabled 1: Enabled	uint16	x	x	x		1.0.3	x	Ctrl. Para.
346	Disinfection-sunday-activated	0: Disabled 1: Enabled	uint16	x	x	x		1.0.3	x	Ctrl. Para.
347	Error relay available	0: No 1: Yes	uint16	x	x	x		1.0.3	x	Ctrl. Para.
348	Error relay	Value = Module ID * 10 + Relay no. Module ID: 0: Own pin / own controller 1: Master 2: Slave 1 3: Slave 2 ... Relay number 0: No selection 1: R1 2: R2 3: R3	uint16	x	x	x	New values!	1.0.3	x	Ctrl. Para.
349	Error relay trigger	Bit coded 0: Inverted 1: Pt1000 error 2: VFS/US error 3: uC error 4: RTC error 5: Communication error 6: Desinfection error	uint16	x	x	x		1.0.3	x	Ctrl. Para.
350	Parallel relay available Client / Single controller	0: No 1: Yes	uint16	x	x	x		1.0.3	x	Ctrl. Para.

351	Parallel relay Client / Single controller	Value = Module ID * 10 + Relay no. Module ID: 0: Own pin / own controller 1: Client 2: Server 1 3: Server 2 ... Relay number 0: No selection 1: R1 2: R2 3: R3	uint16	x	x	x	New values!	1.0.3	x	Ctrl. Para.
352	Parallel relay trigger Client / Single controller	Bit coded 0: Primary Pump (PWM > 0) 1: Secondary (Circ) Pump (PWM > 0) 2: Desinfection run 3: Desinfection error	uint16	x	x	x		1.0.3	x	Ctrl. Para.
353	Hygienic flush available	0: No 1: Yes	uint16	x	x	x		1.0.3	x	Ctrl. Para.
354	Hygienic Start time	Hour	uint16	x	x	x		1.0.3	x	Ctrl. Para.
355	Hygienic duration	Seconds	uint16	x	x	x		1.0.3	x	Ctrl. Para.
356	Buffer storage available	0: No 1: Yes		x	-	x	Checkbox at the subitem "Buffer storage"	1.0.3	x	Ctrl. Para.
357	Reheating available	0: No 1: Yes		x	-	x	Checkbox at the subitem "Reheating"	1.0.3	x	Ctrl. Para.
358	Buffer storage /Reheating sensor	Value = Module ID * 10 + Sensor no. Module ID: 0: Own pin 1: Master 2: Slave 1 3: Slave 2 ... Sensor number 0: No selection 1: S1 2: S2 3: S3 4: S4		x	-	x		1.0.3	x	Ctrl. Para.
359	Buffer storage relay	Value = Module ID * 10 + Relay no. Module ID: 0: Own pin / own controller 1: Master 2: Slave 1 3: Slave 2 ... Relay number 0: No selection 1: R1 2: R2 3: R3		x	-	x		1.0.3	x	Ctrl. Para.
362	Operating mode primary pump	0: manual mode 1: automatic mode	uint8	x	x	x	PWM signal	1.0.3		Ctrl. Para.
363	Operating mode circulation pump	0: manual mode 1: automatic mode	uint8	x	x	x	PWM signal	1.0.3		Ctrl. Para.
364	Operating mode output R1	0: manual mode 1: automatic mode	uint8	x	x	x		1.0.3		Ctrl. Para.
365	Operating mode output R2	0: manual mode 1: automatic mode	uint8	x	x	x		1.0.3		Ctrl. Para.
366	Operating mode output R3	0: manual mode 1: automatic mode	uint8	x	x	x		1.0.3		Ctrl. Para.
367	Operating mode input S1	0: manual mode 1: automatic mode	uint8	x	x	x		1.0.3		Ctrl. Para.
368	Operating mode input S2	0: manual mode 1: automatic mode	uint8	x	x	x		1.0.3		Ctrl. Para.
369	Operating mode input S3	0: manual mode 1: automatic mode	uint8	x	x	x		1.0.3		Ctrl. Para.
370	Operating mode input S4	0: manual mode 1: automatic mode	uint8	x	x	x		1.0.3		Ctrl. Para.
371	Operating mode VFS/US T - Connector 1	0: manual mode 1: automatic mode	uint8	x	x	x		1.0.3		Ctrl. Para.
372	Operating mode VFS/US V - Connector 1	0: manual mode 1: automatic mode	uint8	x	x	x		1.0.3		Ctrl. Para.
373	Operating mode VFS/US T - Connector 2	0: manual mode 1: automatic mode	uint8	x	x	x		1.0.3		Ctrl. Para.
374	Operating mode VFS/US V - Connector 2	0: manual mode 1: automatic mode	uint8	x	x	x		1.0.3		Ctrl. Para.
377	Modul 2 switching ON flow	Default: 256 Resolution 0.1 l/min e.g.: 25.6l/min -> 256	int16	x	-	-	Cascade point of changeover	1.0.3	x	Ctrl. Para.
378	Modul 2 switching OFF flow	Default: 192 Resolution 0.1 l/min e.g.: 19.2l/min -> 192	int16	x	-	-	Cascade point of changeover	1.0.3	x	Ctrl. Para.
379	Modul 3 switching ON flow	Default: 512 Resolution 0.1 l/min Bsp.: 51.2l/min -> 512	int16	x	-	-	=I929 Cascade point of changeover	1.0.3	x	Ctrl. Para.
380	Modul 3 switching OFF flow	Default: 288 Resolution 0.1 l/min e.g.: 28.8l/min -> 288	int16	x	-	-	Cascade point of changeover	1.0.3	x	Ctrl. Para.
381	Modul 4 switching ON flow	Default: 768 Resolution 0.1 l/min e.g.: 76.8l/min -> 768	int16	x	-	-	Cascade point of changeover	1.0.3	x	Ctrl. Para.
382	Modul 4 switching OFF flow	Default: 384 Resolution 0.1 l/min e.g.: 38.4l/min -> 384	int16	x	-	-	Cascade point of changeover	1.0.3	x	Ctrl. Para.
383	Modul switching On	Default: 80 Resolution 1%	int16	x	-	x		1.0.3	x	Ctrl. Para.

384	Modul switching Off	Default: 30 Resolution 1%	int16	x	-	x		1.0.3	x	Ctrl. Para.
385	Time modul change	Default: 0s Range: 0s - 600s	int16	x	-	x	Step: 10s	1.0.3	x	Ctrl. Para.
387	Change stand by modul after	Default value 420 minutes Range: 1 minute - 420 minutes	uint16	x	-	x	Time after the stand by module change	2.1.4	x	Ctrl. Para.
500	S1	Resolution 0.1 °C 9999: Unterbrechung -9999: Short circuit	int16	x	x	x	read: With decimalplace example: 14.3 °C -> 143 write: Without decimal place example: 60°C -> 60	1.0.3	x (manual mode)	Current values
501	S2	Resolution 0.1 °C 9999: Unterbrechung -9999: Short circuit	int16	x	x	x	read: With decimalplace example: 14.3 °C -> 143 write: Without decimal place example: 60°C -> 60	1.0.3	x (manual mode)	Current values
502	S3	Resolution 0.1 °C 9999: Unterbrechung -9999: Short circuit	int16	x	x	x	read: With decimalplace example: 14.3 °C -> 143 write: Without decimal place example: 60°C -> 60	1.0.3	x (manual mode)	Current values
503	S4	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	read: With decimalplace example: 14.3 °C -> 143 write: Without decimal place example: 60°C -> 60	1.0.3	x (manual mode)	Current values
504	VFS/US 1 T	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	read: With decimalplace example: 14.3 °C -> 143 write: Without decimal place example: 60°C -> 60	1.0.3	x (manual mode)	Current values
505	VFS/US 1 V	Resolution 0.1 l/min 9999: Interruption -9999: Short circuit	int16	x	x	x	read / write: With decimalplace example: 5.4l/min -> 54	1.0.3	x (manual mode)	Current values
506	VFS/US 2 T	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	read: With decimalplace example: 14.3 °C -> 143 write: Without decimal place example: 60°C -> 60	1.0.3	x (manual mode)	Current values
507	VFS/US 2 V	Resolution 0.1 l/min 9999: Interruption -9999: Short circuit	int16	x	x	x	read / write: With decimalplace example: 5.4l/min -> 54	1.0.3	x (manual mode)	Current values
508	Status 1 - Manual mode / Error exists	Bit coded 0: Error exists 1: Pri. pump pwm manual mode 2: Circ. pwm manual mode 3: Output R1 manual mode 4: Output R2 manual mode 5: Output R3 manual mode 6: S1 manual mode 7: S2 manual mode 8: S3 manual mode 9: S4 manual mode 10: VFS/US 1 T manual mode 11: VFS/US 1 V manual mode 12: VFS/US 2 T manual mode 13: VFS/US 2 V manual mode 14: - - - 15: - - -	uint16	x	-	-	Section to retrieve: 0: System parameter 1: Control parameter 2: Statistics	1.0.3		Current values
509	Status 2 - Function	Bit coded 0: Circ. function T available 1: Circ. function time available 2: Circ. function on demand available 3: Circ. function T active 4: Circ. function time active 5: Circ. function on demand active 6: Stratification of return available 7: Stratification of return Locked protection active 8: Modulation hot water available 9: Modulation hot water active 10: Comfort function available 11: Comfort function active 12: Comfort function pump locked 13: Disinfection available 14: Disinfection active 15: Disinfection last one successful	uint16	x	-	-	Bit 12: When the temperature is after 100s to low, there is a protection (wait time) from 1h.	1.0.3		Current values

510	Status 3 - Function	Bit coded 0: Error relay available 1: Error relay active 2: Parallel relay available 3: Parallel relay active 4: Hygienic flush available 5: Hygienic flush active 6: Buffer storage available 7: Buffer storage active 8: Heating available 9: Heating active 10: Overtemperature protection active 11: Average flow active 12: Cascade valve on 13: User plant user 14: User plumber 15: User PAW	uint16	x	-	-		1.0.3		Current values
511	Status 4	Bit coded 0: First start up pass 1: Hydraulic system adaptation running 2: Cascade valve open 3: Short tap volume detected. Circulation pump must start.	uint16	x	-	-		1.0.3		Current values
512	Status 5 - Sensor error	Bit coded 0: Tvl interruption 1: Tvl short circuit 2: Tbuffer interruption 3: Tbuffer short circuit 4: Tww interruption 5: Tww short circuit 6: Tkw interruption 7: Tkw short circuit 8: Tstratification interruption 9: Tstratification short circuit 10: Tcirculation interruption 11: Tcirculation short circuit 12: VFS/US 1 T interruption 13: VFS/US 1 T short circuit 14: VFS/US 1 V interruption 15: VFS/US 1 V short circuit	uint16	x	-	-		1.0.3		Current values
513	Status 6 - Sensor error	Bit coded 0: VFS/US 2 T interruption 1: VFS/US 2 T short circuit 2: VFS/US 2 V interruption 3: VFS/US 2 V short circuit 4: RTC error 5: uC error 6: --- 7: ---	uint16	x	-	-		1.0.3		Current values
514	Tvl	Resolution 0.1 °C 9999: Unterbrechung -9999: Short circuit	int16	x	-	-	14.3 °C -> 143 Temperature primary warm sensor	1.0.3		Current values
515	Tww	Resolution 0.1 °C 9999: Unterbrechung -9999: Short circuit	int16	x	-	-	14.3 °C -> 143 Temperature secondary warm sensor	1.0.3		Current values
516	Tkw	Resolution 0.1 °C 9999: Unterbrechung -9999: Short circuit	int16	x	-	-	14.3 °C -> 143 Temperature secondary cold sensor	1.0.3		Current values
517	T buffer	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	-	-	14.3 °C -> 143 Temperature buffer sensor	1.0.3		Current values
518	T stratification	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	-	-	14.3 °C -> 143 Temperature stratification of return sensor	1.0.3		Current values
519	T circulation	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	-	-	14.3 °C -> 143 Temperature circulation sensor	1.0.3		Current values
521	Vsecondary	Resolution 0.1 l/min 9999 = Interruption -8888 = No sensor	int16	x	-	-	17.5 l/min -> 175 Secondary flow (flowsensor 1)	1.0.3		Current values
522	PWM primary	Resolution 0.1%	int16	x	x	x	50% -> 500	1.0.3		Current values
523	PWM circulation	Resolution 0.1%	int16	x	x	x	50% -> 500	1.0.3		Current values
524	Control output R1	0: Off 100: On	uint8	x	x	x	Only writable in manual mode	1.0.3		Current values
525	Control output R2	0: Off 100: On	uint8	x	x	x	Only writable in manual mode	1.0.3		Current values
526	Control output R3	0: Off 100: On	uint8	x	x	x	Only writable in manual mode	1.0.3		Current values
527	Tww_set_temperature	60°C -> 60	uint8	x	x	x	D.H.W. set temperatur	1.0.3	x	Current values
528	Tww_modulation_temperature	60°C -> 600	uint16	x	-	-	Calculated set point of modulation temperature regulation	2.1.4		Current values
580	Error free [High]	Modbus communication counter	int16	x	-	-		3.0.2		Current values
581	Error free [Low]	Modbus communication counter	int16	x	-	-		3.0.2		Current values
582	CRC [High]	Modbus communication counter	int16	x	-	-		3.0.2		Current values
583	CRC [Low]	Modbus communication counter	int16	x	-	-		3.0.2		Current values

584	Timeout [High]	Modbus communication counter	int16	x	-	-		3.0.2		Current values
585	Timeout [Low]	Modbus communication counter	int16	x	-	-		3.0.2		Current values
586	Illegal function [High]	Modbus communication counter	int16	x	-	-		3.0.2		Current values
587	Illegal function [Low]	Modbus communication counter	int16	x	-	-		3.0.2		Current values
588	Illegal address [High]	Modbus communication counter	int16	x	-	-		3.0.2		Current values
589	Illegal address [Low]	Modbus communication counter	int16	x	-	-		3.0.2		Current values
590	Illegal data [High]	Modbus communication counter	int16	x	-	-		3.0.2		Current values
591	Illegal data [Low]	Modbus communication counter	int16	x	-	-		3.0.2		Current values
592	Server error [High]	Modbus communication counter	int16	x	-	-		3.0.2		Current values
593	Server error [Low]	Modbus communication counter	int16	x	-	-		3.0.2		Current values
594	Other [High]	Modbus communication counter	int16	x	-	-		3.0.2		Current values
595	Other [Low]	Modbus communication counter	int16	x	-	-		3.0.2		Current values
900	Tvl Min	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only 10000 to clear	1.0.3	x	Statistics
901	Tvl Max	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only 10000 to clear	1.0.3	x	Statistics
902	Tkw Min	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only 10000 to clear	1.0.3	x	Statistics
903	Tkw Max	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only 10000 to clear	1.0.3	x	Statistics
904	Tww Min	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only 10000 to clear	1.0.3	x	Statistics
905	Tww Max	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only 10000 to clear	1.0.3	x	Statistics
906	Tbuffer Min	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only 10000 to clear	1.0.3	x	Statistics
907	Tbuffer Max	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only 10000 to clear	1.0.3	x	Statistics
908	Tstratification Min	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only 10000 to clear	1.0.3	x	Statistics
909	Tstratification Max	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only 10000 to clear	1.0.3	x	Statistics
910	Tcirculation Min	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only delete with 10000	1.0.3	x	Statistics
911	Tcirculation Max	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only 10000 to clear	1.0.3	x	Statistics
916	Vsecondary Min	Resolution 0.1 l/min 9999 = Interruption -8888 = No sensor	int16	x	x	x	17.5 l/min -> 175 write only 10000 to clear	1.0.3	x	Statistics
917	Vsecondary Max	Resolution 0.1 l/min 9999 = Interruption -8888 = No sensor	int16	x	x	x	17.5 l/min -> 175 write only 10000 to clear	1.0.3	x	Statistics
918	PWM primary Min	Resolution 0.1%	int16	x	x	x	write only 10000 to clear	1.0.3	x	Statistics
919	PWM primary Max	Resolution 0.1%	int16	x	x	x	write only 10000 to clear	1.0.3	x	Statistics
920	PWM circulation Min	Resolution 0.1%	int16	x	x	x	write only 10000 to clear	1.0.3	x	Statistics
921	PWM circulation Max	Resolution 0.1%	int16	x	x	x	write only 10000 to clear	1.0.3	x	Statistics
922	Switch cycles output R1 [High]		uint16	x	-	-	Only complet high and low	1.0.3	x	Statistics
923	Switch cycles output R1 [Low]		uint16	x	-	-	Only complet high and low	1.0.3	x	Statistics
924	Switch cycles output R2 [High]		uint16	x	-	-	Only complet high and low	1.0.3	x	Statistics
925	Switch cycles output R2 [Low]		uint16	x	-	-	Only complet high and low	1.0.3	x	Statistics
926	Switch cycles output R3 [High]		uint16	x	-	-	Only complet high and low	1.0.3	x	Statistics
927	Switch cycles output R3 [Low]		uint16	x	-	-	Only complet high and low	1.0.3	x	Statistics
928	Operating hours output R1 [High]	Resolution 1min	uint16	x	-	-	Only complet high and low	1.0.3	x	Statistics
929	Operating hours output R1 [Low]	Resolution 1min	uint16	x	-	-	Only complet high and low	1.0.3	x	Statistics
930	Operating hours output R2 [High]	Resolution 1min	uint16	x	-	-	Only complet high and low	1.0.3	x	Statistics
931	Operating hours output R2 [Low]	Resolution 1min	uint16	x	-	-	Only complet high and low	1.0.3	x	Statistics
932	Operating hours output R3 [High]	Resolution 1min	uint16	x	-	-	Only complet high and low	1.0.3	x	Statistics
933	Operating hours output R3 [Low]	Resolution 1min	uint16	x	-	-	Only complet high and low	1.0.3	x	Statistics
934	Operating hours pwm pri [High]	Resolution 1min	uint16	x	-	-	Only complet high and low	1.0.3	x	Statistics
935	Operating hours pwm pri [Low]	Resolution 1min	uint16	x	-	-	Only complet high and low	1.0.3	x	Statistics
936	Operating hours pwm circ [High]	Resolution 1min	uint16	x	-	-	Only complet high and low	1.0.3	x	Statistics

937	Operating hours pwm circ [Low]	Resolution 1min	uint16	x	-	-	Only complet high and low	1.0.3	x	Statistics
938	Operating hours modul last 24h	Resolution 1min	uint16	x	-	-	Time where the primary pump was on	1.0.3	x	Statistics
939	Flow actually liter day [High]	Coded XXZZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 M liter	1.0.3	x	Statistics
940	Flow actually liter day [Low]	Coded XXZZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 M liter	1.0.3	x	Statistics
941	Flow actually liter week [High]	Coded XXZZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 M liter	1.0.3	x	Statistics
942	Flow actually liter week [Low]	Coded XXZZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 M liter	1.0.3	x	Statistics
943	Flow actually liter month [High]	Coded XXZZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 M liter	1.0.3	x	Statistics
944	Flow actually liter month [Low]	Coded XXZZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 M liter	1.0.3	x	Statistics
945	Flow actually liter total [High]	Coded XXZZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 M liter	1.0.3	x	Statistics
946	Flow actually liter total [Low]	Coded XXZZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 M liter	1.0.3	x	Statistics

947	Heat quantity day [High]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 MWh	1.0.3	x	Statistics
948	Heat quantity day [Low]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 MWh	1.0.3	x	Statistics
949	Heat quantity week [High]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 MWh	1.0.3	x	Statistics
950	Heat quantity week [Low]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 MWh	1.0.3	x	Statistics
951	Heat quantity month [High]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 MWh	1.0.3	x	Statistics
952	Heat quantity month [Low]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 MWh	1.0.3	x	Statistics
953	Heat quantity total [High]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 MWh	1.0.3	x	Statistics
954	Heat quantity total [Low]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 MWh	1.0.3	x	Statistics
955	Heat quantity total since (Date)	(Month * 40 + Day) * 100 + Year	uint16	x	x	x		1.0.3	x	Statistics
956	Heat quantity total since (Time)	Hour * 100 + Minute	uint16	x	x	x		1.0.3	x	Statistics
957	Flow total since (Date)	(Month * 40 + Day) * 100 + Year	uint16	x	x	x		1.0.3	x	Statistics
958	Flow total since (Time)	Hour * 100 + Minute+G141	uint16	x	x	x		1.0.3	x	Statistics

1100	Desinfection 1 Date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3	Message
1101	Desinfection 1 Time	Hour * 100 + Minute	uint16	x	-	-		1.0.3	Message
1102	Desinfection 1 Status	Coded: YYYY X: 0: Unsuccessful 1: Successful YYY: Temperature	uint16	x	-	-	E.g.: 0531 -> Unsuccessful 53.1°C 1702 -> Successful. 70.2°C	1.0.3	Message
1103	Desinfection 2 Date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3	Message
1104	Desinfection 2 Time	Hour * 100 + Minute	uint16	x	-	-		1.0.3	Message
1105	Desinfection 2 Status	Coded: YYYY X: 0: Unsuccessful 1: Successful YYY: Temperature	uint16	x	-	-	E.g.: 0531 -> Unsuccessful 53.1°C 1702 -> Successful. 70.2°C	1.0.3	Message
1106	Desinfection 3 Date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3	Message
1107	Desinfection 3 Time	Hour * 100 + Minute	uint16	x	-	-		1.0.3	Message
1108	Desinfection 3 Status	Coded: YYYY X: 0: Unsuccessful 1: Successful YYY: Temperature	uint16	x	-	-	E.g.: 0531 -> Unsuccessful 53.1°C 1702 -> Successful. 70.2°C	1.0.3	Message
1109	Desinfection 4 Date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3	Message
1110	Desinfection 4 Time	Hour * 100 + Minute	uint16	x	-	-		1.0.3	Message
1111	Desinfection 4 Status	Coded: YYYY X: 0: Unsuccessful 1: Successful YYY: Temperature	uint16	x	-	-	E.g.: 0531 -> Unsuccessful 53.1°C 1702 -> Successful. 70.2°C	1.0.3	Message
1112	Desinfection 5 Date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3	Message
1113	Desinfection 5 Time	Hour * 100 + Minute	uint16	x	-	-		1.0.3	Message
1114	Desinfection 5 Status	Coded: YYYY X: 0: Unsuccessful 1: Successful YYY: Temperature	uint16	x	-	-	E.g.: 0531 -> Unsuccessful 53.1°C 1702 -> Successful. 70.2°C	1.0.3	Message
1115	Desinfection 6 Date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3	Message
1116	Desinfection 6 Time	Hour * 100 + Minute	uint16	x	-	-		1.0.3	Message
1117	Desinfection 6 Status	Coded: YYYY X: 0: Unsuccessful 1: Successful YYY: Temperature	uint16	x	-	-	E.g.: 0531 -> Unsuccessful 53.1°C 1702 -> Successful. 70.2°C	1.0.3	Message
1118	Desinfection 7 Date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3	Message
1119	Desinfection 7 Time	Hour * 100 + Minute	uint16	x	-	-		1.0.3	Message
1120	Desinfection 7 Status	Coded: YYYY X: 0: Unsuccessful 1: Successful YYY: Temperature	uint16	x	-	-	E.g.: 0531 -> Unsuccessful 53.1°C 1702 -> Successful. 70.2°C	1.0.3	Message
1200	Alarm Message 1 - ID	Values: tabpage "Alarm history ID's"	uint8	x	-	-		1.0.3	Message
1201	Alarm message 1 - date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3	Message
1202	Alarm message 1 - time	Hour * 100 + Minute	uint16	x	-	-		1.0.3	Message
1203	Alarm Message 2 - ID		uint8	x	-	-		1.0.3	Message
1204	Alarm message 2 - date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3	Message
1205	Alarm message 2 - time	Hour * 100 + Minute	uint16	x	-	-		1.0.3	Message
1206	Alarm Message 3 - ID		uint8	x	-	-		1.0.3	Message
1207	Alarm message 3 - date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3	Message
1208	Alarm message 3 - time	Hour * 100 + Minute	uint16	x	-	-		1.0.3	Message
1209	Alarm Message 4 - ID		uint8	x	-	-		1.0.3	Message
1210	Alarm message 4 - date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3	Message
1211	Alarm message 4 - time	Hour * 100 + Minute	uint16	x	-	-		1.0.3	Message
1212	Alarm Message 5 - ID		uint8	x	-	-		1.0.3	Message
1213	Alarm message 5 - date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3	Message
1214	Alarm message 5 - time	Hour * 100 + Minute	uint16	x	-	-		1.0.3	Message
1215	Alarm Message 6 - ID		uint8	x	-	-		1.0.3	Message
1216	Alarm message 6 - date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3	Message
1217	Alarm message 6 - time	Hour * 100 + Minute	uint16	x	-	-		1.0.3	Message
1218	Alarm Message 7 - ID		uint8	x	-	-		1.0.3	Message
1219	Alarm message 7 - date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3	Message
1220	Alarm message 7 - time	Hour * 100 + Minute	uint16	x	-	-		1.0.3	Message
1221	Alarm Message 8 - ID		uint8	x	-	-		1.0.3	Message
1222	Alarm message 8 - date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3	Message
1223	Alarm message 8 - time	Hour * 100 + Minute	uint16	x	-	-		1.0.3	Message
1224	Alarm Message 9 - ID		uint8	x	-	-		1.0.3	Message
1225	Alarm message 9 - date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3	Message
1226	Alarm message 9 - time	Hour * 100 + Minute	uint16	x	-	-		1.0.3	Message
1227	Alarm Message 10 - ID		uint8	x	-	-		1.0.3	Message
1228	Alarm message 10 - date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3	Message
1229	Alarm message 10 - time	Hour * 100 + Minute	uint16	x	-	-		1.0.3	Message
1230	Alarm Message 11 - ID		uint8	x	-	-		1.0.3	Message
1231	Alarm message 11 - date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3	Message
1232	Alarm message 11 - time	Hour * 100 + Minute	uint16	x	-	-		1.0.3	Message
1233	Alarm Message 12 - ID		uint8	x	-	-		1.0.3	Message
1234	Alarm message 12 - date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3	Message
1235	Alarm message 12 - time	Hour * 100 + Minute	uint16	x	-	-		1.0.3	Message
1236	Alarm Message 13 - ID		uint8	x	-	-		1.0.3	Message
1237	Alarm message 13 - date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3	Message
1238	Alarm message 13 - time	Hour * 100 + Minute	uint16	x	-	-		1.0.3	Message
1239	Alarm Message 14 - ID		uint8	x	-	-		1.0.3	Message
1240	Alarm Message 14 - date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3	Message
1241	Alarm Message 14 - time	Hour * 100 + Minute	uint16	x	-	-		1.0.3	Message

1434	Alarm Message 79 - ID		uint8	x	-	-		1.0.3		Message
1435	Alarm Message 79 - date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3		Message
1436	Alarm Message 79 - time	Hour * 100 + Minute	uint16	x	-	-		1.0.3		Message
1437	Alarm Message 80 - ID		uint8	x	-	-		1.0.3		Message
1438	Alarm Message 80 - date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3		Message
1439	Alarm Message 80 - time	Hour * 100 + Minute	uint16	x	-	-		1.0.3		Message
1440	Alarm Message 81 - ID		uint8	x	-	-		1.0.3		Message
1441	Alarm Message 81 - date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3		Message
1442	Alarm Message 81 - time	Hour * 100 + Minute	uint16	x	-	-		1.0.3		Message
1443	Alarm Message 82 - ID		uint8	x	-	-		1.0.3		Message
1444	Alarm Message 82 - date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3		Message
1445	Alarm Message 82 - time	Hour * 100 + Minute	uint16	x	-	-		1.0.3		Message
1446	Alarm Message 83 - ID		uint8	x	-	-		1.0.3		Message
1447	Alarm Message 83 - date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3		Message
1448	Alarm Message 83 - time	Hour * 100 + Minute	uint16	x	-	-		1.0.3		Message
1449	Alarm Message 84 - ID		uint8	x	-	-		1.0.3		Message
1450	Alarm Message 84 - date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3		Message
1451	Alarm Message 84 - time	Hour * 100 + Minute	uint16	x	-	-		1.0.3		Message
1452	Alarm Message 85 - ID		uint8	x	-	-		1.0.3		Message
1453	Alarm Message 85 - date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3		Message
1454	Alarm Message 85 - time	Hour * 100 + Minute	uint16	x	-	-		1.0.3		Message
1455	Alarm Message 86 - ID		uint8	x	-	-		1.0.3		Message
1456	Alarm Message 86 - date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3		Message
1457	Alarm Message 86 - time	Hour * 100 + Minute	uint16	x	-	-		1.0.3		Message
1458	Alarm Message 87 - ID		uint8	x	-	-		1.0.3		Message
1459	Alarm Message 87 - date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3		Message
1460	Alarm Message 87 - time	Hour * 100 + Minute	uint16	x	-	-		1.0.3		Message
1461	Alarm Message 88 - ID		uint8	x	-	-		1.0.3		Message
1462	Alarm Message 88 - date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3		Message
1463	Alarm Message 88 - time	Hour * 100 + Minute	uint16	x	-	-		1.0.3		Message
1464	Alarm Message 89 - ID		uint8	x	-	-		1.0.3		Message
1465	Alarm Message 89 - date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3		Message
1466	Alarm Message 89 - time	Hour * 100 + Minute	uint16	x	-	-		1.0.3		Message
1467	Alarm Message 90 - ID		uint8	x	-	-		1.0.3		Message
1468	Alarm Message 90 - date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3		Message
1469	Alarm Message 90 - time	Hour * 100 + Minute	uint16	x	-	-		1.0.3		Message
1470	Alarm Message 91 - ID		uint8	x	-	-		1.0.3		Message
1471	Alarm Message 91 - date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3		Message
1472	Alarm Message 91 - time	Hour * 100 + Minute	uint16	x	-	-		1.0.3		Message
1473	Alarm Message 92 - ID		uint8	x	-	-		1.0.3		Message
1474	Alarm Message 92 - date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3		Message
1475	Alarm Message 92 - time	Hour * 100 + Minute	uint16	x	-	-		1.0.3		Message
1476	Alarm Message 93 - ID		uint8	x	-	-		1.0.3		Message
1477	Alarm Message 93 - date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3		Message
1478	Alarm Message 93 - time	Hour * 100 + Minute	uint16	x	-	-		1.0.3		Message
1479	Alarm Message 94 - ID		uint8	x	-	-		1.0.3		Message
1480	Alarm Message 94 - date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3		Message
1481	Alarm Message 94 - time	Hour * 100 + Minute	uint16	x	-	-		1.0.3		Message
1482	Alarm Message 95 - ID		uint8	x	-	-		1.0.3		Message
1483	Alarm Message 95 - date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3		Message
1484	Alarm Message 95 - time	Hour * 100 + Minute	uint16	x	-	-		1.0.3		Message
1485	Alarm Message 96 - ID		uint8	x	-	-		1.0.3		Message
1486	Alarm Message 96 - date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3		Message
1487	Alarm Message 96 - time	Hour * 100 + Minute	uint16	x	-	-		1.0.3		Message
1488	Alarm Message 97 - ID		uint8	x	-	-		1.0.3		Message
1489	Alarm Message 97 - date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3		Message
1490	Alarm Message 97 - time	Hour * 100 + Minute	uint16	x	-	-		1.0.3		Message
1491	Alarm Message 98 - ID		uint8	x	-	-		1.0.3		Message
1492	Alarm Message 98 - date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3		Message
1493	Alarm Message 98 - time	Hour * 100 + Minute	uint16	x	-	-		1.0.3		Message
1494	Alarm Message 99 - ID		uint8	x	-	-		1.0.3		Message
1495	Alarm Message 99 - date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3		Message
1496	Alarm Message 99 - time	Hour * 100 + Minute	uint16	x	-	-		1.0.3		Message
1497	Alarm Message 100 - ID		uint8	x	-	-		1.0.3		Message
1498	Alarm Message 100 - date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3		Message
1499	Alarm Message 100 - time	Hour * 100 + Minute	uint16	x	-	-		1.0.3		Message
1900	Language	0: German 1: English 2: French 3: Polish 4: Italian 5: Spanish 6: Netherlands 7: Swedish	uint8	x	x	x		1.0.3	x	Sys. Para.
1901	User	0000: Operator 0011, 9856: Specialist (customer dependent)	uint16	x	x	x	Change from 5 to 4 places at FW 3.0.0	1.0.3	x	Sys. Para.
1912	Display brightness	Range 0 - xx	uint8	x	x	x		1.0.3	x	Sys. Para.
1913	Display dim brightness	Range 0 - xx	uint8	x	x	x		1.0.3	x	Sys. Para.
1914	Display contrast	Range 0 - xx	uint8	x	x	x		1.0.3	x	Sys. Para.
1915	Display screen lock	0: Deactive 1: Active	uint8	x	x	x		1.0.3	x	Sys. Para.
1916	Display screen lock delay	1-10 minutes	uint8	x	x	x		1.0.3	x	Sys. Para.
1917	Display operating mode backlight	0: OFF 1: ON 2: Automatic	uint8	x	x	x		1.0.3	x	Sys. Para.
1918	Central European Summer time	0: Automatic 1: Manual	uint8	x	x	x		1.0.3	x	Sys. Para.
1920	S1 Offset	Default: 0 Range: -15K to +15K Resolution: 1K	int8	x	x	x		1.0.3	x	Sys. Para.
1921	S2 Offset	Default: 0 Range: -15K to +15K Resolution: 1K	int8	x	x	x		1.0.3	x	Sys. Para.
1922	S3 Offset	Default: 0 Range: -15K to +15K Resolution: 1K	int8	x	x	x		1.0.3	x	Sys. Para.

Modbus Register FC3.10

1923	S4 Offset	Default: 0 Range: -15K to +15K Resolution: 1K	int8	x	x	x		1.0.3	x	Sys. Para.
1924	VFS/US V offset	Default: 0 Range: -5l/min to 5l/min Resolution: 0.1l/min	int8	x	x	x		1.0.3	x	Sys. Para.
1925	VFS/US T offset	Default: 0 Range: -15K to +15K Resolution: 1K	int8	x	x	x		1.0.3	x	Sys. Para.
1940	Display -> Color inversion	0: Deactive 1: Active	uint8	x	x	x		1.0.3	x	Sys. Para.
1941	USB -> Data logging interval	1 - 60s	uint8	x	x	x		1.0.3	x	Sys. Para.
1942	USB -> Recording type	0: Linear 1: Cyclical	uint8	x	x	x		1.0.3	x	Sys. Para.
4000	Parameter history 1 - Funct./Param	Values: tab "Parameter history ID's"	uint16	x	-	-		1.0.3		Message
4001	Parameter history 1 - Date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3		Message
4002	Parameter history 1 - Time	Hour * 100 + Minute	uint16	x	-	-		1.0.3		Message
4003	Parameter history 1 - Parameter type	Values: tab "Parameter type ID's"	uint16	x	-	-		1.0.3		Message
4004	Parameter history 1 - Value 1 old		uint16	x	-	-		1.0.3		Message
4005	Parameter history 1 - Value 2 old		uint16	x	-	-		1.0.3		Message
4006	Parameter history 1 - Value 1 new		uint16	x	-	-		1.0.3		Message
4007	Parameter history 1 - Value 2 new		uint16	x	-	-		1.0.3		Message
4008	Parameter history 2 - Funct./Param	Values: tab "Parameter history ID's"	uint16	x	-	-		1.0.3		Message
4009	Parameter history 2 - Date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3		Message
4010	Parameter history 2 - Time	Hour * 100 + Minute	uint16	x	-	-		1.0.3		Message
4011	Parameter history 2 - Parameter type	Values: tab "Parameter type ID's"	uint16	x	-	-		1.0.3		Message
4012	Parameter history 2 - Value 1 old		uint16	x	-	-		1.0.3		Message
4013	Parameter history 2 - Value 2 old		uint16	x	-	-		1.0.3		Message
4014	Parameter history 2 - Value 1 new		uint16	x	-	-		1.0.3		Message
4015	Parameter history 2 - Value 2 new		uint16	x	-	-		1.0.3		Message
4016	Parameter history 3 - Funct./Param	Values: tab "Parameter history ID's"	uint16	x	-	-		1.0.3		Message
4017	Parameter history 3 - Date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3		Message
4018	Parameter history 3 - Time	Hour * 100 + Minute	uint16	x	-	-		1.0.3		Message
4019	Parameter history 3 - Parameter type	Values: tab "Parameter type ID's"	uint16	x	-	-		1.0.3		Message
4020	Parameter history 3 - Value 1 old		uint16	x	-	-		1.0.3		Message
4021	Parameter history 3 - Value 2 old		uint16	x	-	-		1.0.3		Message
4022	Parameter history 3 - Value 1 new		uint16	x	-	-		1.0.3		Message
4023	Parameter history 3 - Value 2 new		uint16	x	-	-		1.0.3		Message
4024	Parameter history 4 - Funct./Param	Values: tab "Parameter history ID's"	uint16	x	-	-		1.0.3		Message
4025	Parameter history 4 - Date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3		Message
4026	Parameter history 4 - Time	Hour * 100 + Minute	uint16	x	-	-		1.0.3		Message
4027	Parameter history 4 - Parameter type	Values: tab "Parameter type ID's"	uint16	x	-	-		1.0.3		Message
4028	Parameter history 4 - Value 1 old		uint16	x	-	-		1.0.3		Message
4029	Parameter history 4 - Value 2 old		uint16	x	-	-		1.0.3		Message
4030	Parameter history 4 - Value 1 new		uint16	x	-	-		1.0.3		Message
4031	Parameter history 4 - Value 2 new		uint16	x	-	-		1.0.3		Message
4032	Parameter history 5 - Funct./Param	Values: tab "Parameter history ID's"	uint16	x	-	-		1.0.3		Message
4033	Parameter history 5 - Date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3		Message
4034	Parameter history 5 - Time	Hour * 100 + Minute	uint16	x	-	-		1.0.3		Message
4035	Parameter history 5 - Parameter type	Values: tab "Parameter type ID's"	uint16	x	-	-		1.0.3		Message
4036	Parameter history 5 - Value 1 old		uint16	x	-	-		1.0.3		Message
4037	Parameter history 5 - Value 2 old		uint16	x	-	-		1.0.3		Message
4038	Parameter history 5 - Value 1 new		uint16	x	-	-		1.0.3		Message
4039	Parameter history 5 - Value 2 new		uint16	x	-	-		1.0.3		Message
4040	Parameter history 6 - Funct./Param	Values: tab "Parameter history ID's"	uint16	x	-	-		1.0.3		Message
4041	Parameter history 6 - Date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3		Message
4042	Parameter history 6 - Time	Hour * 100 + Minute	uint16	x	-	-		1.0.3		Message
4043	Parameter history 6 - Parameter type	Values: tab "Parameter type ID's"	uint16	x	-	-		1.0.3		Message
4044	Parameter history 6 - Value 1 old		uint16	x	-	-		1.0.3		Message
4045	Parameter history 6 - Value 2 old		uint16	x	-	-		1.0.3		Message
4046	Parameter history 6 - Value 1 new		uint16	x	-	-		1.0.3		Message
4047	Parameter history 6 - Value 2 new		uint16	x	-	-		1.0.3		Message
4048	Parameter history 7 - Funct./Param	Values: tab "Parameter history ID's"	uint16	x	-	-		1.0.3		Message
4049	Parameter history 7 - Date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3		Message
4050	Parameter history 7 - Time	Hour * 100 + Minute	uint16	x	-	-		1.0.3		Message
4051	Parameter history 7 - Parameter type	Values: tab "Parameter type ID's"	uint16	x	-	-		1.0.3		Message
4052	Parameter history 7 - Value 1 old		uint16	x	-	-		1.0.3		Message
4053	Parameter history 7 - Value 2 old		uint16	x	-	-		1.0.3		Message
4054	Parameter history 7 - Value 1 new		uint16	x	-	-		1.0.3		Message
4055	Parameter history 7 - Value 2 new		uint16	x	-	-		1.0.3		Message
4056	Parameter history 8 - Funct./Param	Values: tab "Parameter history ID's"	uint16	x	-	-		1.0.3		Message
4057	Parameter history 8 - Date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3		Message
4058	Parameter history 8 - Time	Hour * 100 + Minute	uint16	x	-	-		1.0.3		Message
4059	Parameter history 8 - Parameter type	Values: tab "Parameter type ID's"	uint16	x	-	-		1.0.3		Message
4060	Parameter history 8 - Value 1 old		uint16	x	-	-		1.0.3		Message
4061	Parameter history 8 - Value 2 old		uint16	x	-	-		1.0.3		Message
4062	Parameter history 8 - Value 1 new		uint16	x	-	-		1.0.3		Message
4063	Parameter history 8 - Value 2 new		uint16	x	-	-		1.0.3		Message
4064	Parameter history 9 - Funct./Param	Values: tab "Parameter history ID's"	uint16	x	-	-		1.0.3		Message
4065	Parameter history 9 - Date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3		Message
4066	Parameter history 9 - Time	Hour * 100 + Minute	uint16	x	-	-		1.0.3		Message
4067	Parameter history 9 - Parameter type	Values: tab "Parameter type ID's"	uint16	x	-	-		1.0.3		Message
4068	Parameter history 9 - Value 1 old		uint16	x	-	-		1.0.3		Message
4069	Parameter history 9 - Value 2 old		uint16	x	-	-		1.0.3		Message
4070	Parameter history 9 - Value 1 new		uint16	x	-	-		1.0.3		Message
4071	Parameter history 9 - Value 2 new		uint16	x	-	-		1.0.3		Message
4072	Parameter history 10 - Funct./Param	Values: tab "Parameter history ID's"	uint16	x	-	-		1.0.3		Message
4073	Parameter history 10 - Date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3		Message
4074	Parameter history 10 - Time	Hour * 100 + Minute	uint16	x	-	-		1.0.3		Message
4075	Parameter history 10 - Parameter type	Values: tab "Parameter type ID's"	uint16	x	-	-		1.0.3		Message
4076	Parameter history 10 - Value 1 old		uint16	x	-	-		1.0.3		Message
4077	Parameter history 10 - Value 2 old		uint16	x	-	-		1.0.3		Message
4078	Parameter history 10 - Value 1 new		uint16	x	-	-		1.0.3		Message
4079	Parameter history 10 - Value 2 new		uint16	x	-	-		1.0.3		Message

4769	Parameter history 97 - Date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3		Message
4770	Parameter history 97 - Time	Hour * 100 + Minute	uint16	x	-	-		1.0.3		Message
4771	Parameter history 97 - Parameter type	Values: tab "Parameter type ID's"	uint16	x	-	-		1.0.3		Message
4772	Parameter history 97 - Value 1 old		uint16	x	-	-		1.0.3		Message
4773	Parameter history 97 - Value 2 old		uint16	x	-	-		1.0.3		Message
4774	Parameter history 97 - Value 1 new		uint16	x	-	-		1.0.3		Message
4775	Parameter history 97 - Value 2 new		uint16	x	-	-		1.0.3		Message
4776	Parameter history 98 - Funct./Param	Values: tab "Parameter history ID's"	uint16	x	-	-		1.0.3		Message
4777	Parameter history 98 - Date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3		Message
4778	Parameter history 98 - Time	Hour * 100 + Minute	uint16	x	-	-		1.0.3		Message
4779	Parameter history 98 - Parameter type	Values: tab "Parameter type ID's"	uint16	x	-	-		1.0.3		Message
4780	Parameter history 98 - Value 1 old		uint16	x	-	-		1.0.3		Message
4781	Parameter history 98 - Value 2 old		uint16	x	-	-		1.0.3		Message
4782	Parameter history 98 - Value 1 new		uint16	x	-	-		1.0.3		Message
4783	Parameter history 98 - Value 2 new		uint16	x	-	-		1.0.3		Message
4784	Parameter history 99 - Funct./Param	Values: tab "Parameter history ID's"	uint16	x	-	-		1.0.3		Message
4785	Parameter history 99 - Date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3		Message
4786	Parameter history 99 - Time	Hour * 100 + Minute	uint16	x	-	-		1.0.3		Message
4787	Parameter history 99 - Parameter type	Values: tab "Parameter type ID's"	uint16	x	-	-		1.0.3		Message
4788	Parameter history 99 - Value 1 old		uint16	x	-	-		1.0.3		Message
4789	Parameter history 99 - Value 2 old		uint16	x	-	-		1.0.3		Message
4790	Parameter history 99 - Value 1 new		uint16	x	-	-		1.0.3		Message
4791	Parameter history 99 - Value 2 new		uint16	x	-	-		1.0.3		Message
4792	Parameter history 100 - Funct./Param	Values: tab "Parameter history ID's"	uint16	x	-	-		1.0.3		Message
4793	Parameter history 100 - Date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		1.0.3		Message
4794	Parameter history 100 - Time	Hour * 100 + Minute	uint16	x	-	-		1.0.3		Message
4795	Parameter history 100 - Parameter type	Values: tab "Parameter type ID's"	uint16	x	-	-		1.0.3		Message
4796	Parameter history 100 - Value 1 old		uint16	x	-	-		1.0.3		Message
4797	Parameter history 100 - Value 2 old		uint16	x	-	-		1.0.3		Message
4798	Parameter history 100 - Value 1 new		uint16	x	-	-		1.0.3		Message
4799	Parameter history 100 - Value 2 new		uint16	x	-	-		1.0.3		Message

Only at Modbus Gateway

Reg.	Name	Note	Type	read	write User	write Spec.	Technical field	Ab FW	Write Interval > 12min (20Y EEPROM)	Group
5000	BMS Modbus BaudRate	Data: 1200, 2400, 4800, 9600, 19200, 38400, 57600 Default: 38400	int16	x	-	x		3.0.1		System
5001	BMS Modbus Parity	Data: None, even, odd Default: None	int16	x	-	x		3.0.1		System
5002	BMS Modbus StopBits	Data: 1, 2 Default: 2	int16	x	-	x		3.0.1		System
5003	BMS Modbus Data Bits	Data: 8, 9 Default: 8	int16	x	-	x		3.0.1		System
5004	BMS Modbus ID	Data: 1 - 247 Default: 64	int16	x	-	x	The Modbus ID of the Modbus Gateway for the BMS	3.0.1		System
5005	BMS Timeout	Timeout between BMS and Modbus Gateway: Default: 1800	int16	x	-	x	Unit: seconds Example: 120 = 2 minutes	3.0.1		System
6013	Bootloader FW Version - Major release	Major release	uint16	x	-	-		3.0.x		Slave1
6014	Bootloader FW Version - Minor release	Minor release	uint16	x	-	-		3.0.x		Slave1
6015	Bootloader FW Version - patch level	Patch level	uint16	x	-	-		3.0.x		Slave1
6362	Operating mode primary pump	0: manual mode 1: automatic mode	uint8	x	x	x	PWM signal	2.1.4		Slave1
6363	Operating mode circulation pump	0: manual mode 1: automatic mode	uint8	x	x	x	PWM signal	2.1.4		Slave1
6364	Operating mode output R1	0: manual mode 1: automatic mode	uint8	x	x	x		2.1.4		Slave1
6365	Operating mode output R2	0: manual mode 1: automatic mode	uint8	x	x	x		2.1.4		Slave1
6366	Operating mode output R3	0: manual mode 1: automatic mode	uint8	x	x	x		2.1.4		Slave1
6367	Operating mode input S1	0: manual mode 1: automatic mode	uint8	x	x	x		2.1.4		Slave1
6368	Operating mode input S2	0: manual mode 1: automatic mode	uint8	x	x	x		2.1.4		Slave1
6369	Operating mode input S3	0: manual mode 1: automatic mode	uint8	x	x	x		2.1.4		Slave1
6370	Operating mode input S4	0: manual mode 1: automatic mode	uint8	x	x	x		2.1.4		Slave1
6371	Operating mode VFS/US T - Connector 1	0: manual mode 1: automatic mode	uint8	x	x	x		2.1.4		Slave1
6372	Operating mode VFS/US V - Connector 1	0: manual mode 1: automatic mode	uint8	x	x	x		2.1.4		Slave1
6373	Operating mode VFS/US T - Connector 2	0: manual mode 1: automatic mode	uint8	x	x	x		2.1.4		Slave1
6374	Operating mode VFS/US V - Connector 2	0: manual mode 1: automatic mode	uint8	x	x	x		2.1.4		Slave1
6500	S1	Resolution 0.1 °C 9999: Unterbrechung -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 Raw data	2.1.4	x (manual mode)	Slave1
6501	S2	Resolution 0.1 °C 9999: Unterbrechung -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 Raw data	2.1.4	x (manual mode)	Slave1
6502	S3	Resolution 0.1 °C 9999: Unterbrechung -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 Raw data	2.1.4	x (manual mode)	Slave1
6503	S4	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 Raw data	2.1.4	x (manual mode)	Slave1
6504	VFS/US 1 T	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 Raw data	2.1.4	x (manual mode)	Slave1
6505	VFS/US 1 V	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 Raw data	2.1.4	x (manual mode)	Slave1
6506	VFS/US 2 T	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 Raw data	2.1.4	x (manual mode)	Slave1
6507	VFS/US 2 V	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 Raw data	2.1.4	x (manual mode)	Slave1
6508	Status 1 - Manual mode / Error exists	Bit coded 0: Error exists 1: Pri. pump pwm manual mode 2: Circ. pwm manual mode 3: Output R1 manual mode 4: Output R2 manual mode 5: Output R3 manual mode 6: S1 manual mode 7: S2 manual mode 8: S3 manual mode 9: S4 manual mode 10: VFS/US 1 T manual mode 11: VFS/US 1 V manual mode 12: VFS/US 2 T manual mode 13: VFS/US 2 V manual mode	uint16	x	-	-	Section to retrieve: 0: System parameter 1: Control parameter 2: Statistics	2.1.4		Slave1

6509	Status 2 - Function	Bit coded 0: Circ. function T available 1: Circ. function time available 2: Circ. function on demand available 3: Circ. function T active 4: Circ. function time active 5: Circ. function on demand active 6: Stratification of return available 7: Stratification of return Locked protection active 8: Modulation hot water available 9: Modulation hot water active 10: Comfort function available 11: Comfort function active 12: Comfort function pump locked 13: Disinfection available 14: Disinfection active 15: Disinfection last one successful	uint16	x	-	-	Bit 12: When the temperature is after 100s to low, there is a protection (wait time) from 1h.	2.1.4	Slave1
6510	Status 3 - Function	Bit coded 0: Error relay available 1: Error relay active 2: Parallel relay available 3: Parallel relay active 4: Hygienic flush available 5: Hygienic flush active 6: Buffer storage available 7: Buffer storage active 8: Heating available 9: Heating active 10: Overtemperature protection active 11: Average flow active 12: Cascade valve on 13: User plant user 14: User specialist 15: User PAW	uint16	x	-	-		2.1.4	Slave1
6511	Status 4	Bit coded 0: First start up pass 1: Hydraulic system adaptation running 2: Cascade valve open 3: Short tap volume detected. Circulation pump must start. 4: User specialist advanced	uint16	x	-	-		2.1.4	Slave1
6512	Status 5 - Sensor error	Bit coded 0: Tvl interruption 1: Tvl short circuit 2: Tbuffer interruption 3: Tbuffer short circuit 4: Tww interruption 5: Tww short circuit 6: Tkw interruption 7: Tkw short circuit 8: Tstratification interruption 9: Tstratification short circuit 10: Tcirculation interruption 11: Tcirculation short circuit 12: VFS/US 1 T interruption 13: VFS/US 1 T short circuit 14: VFS/US 1 V interruption 15: VFS/US 1 V short circuit	uint16	x	-	-		2.1.4	Slave1
6513	Status 6 - Sensor error	Bit coded 0: VFS/US 2 T interruption 1: VFS/US 2 T short circuit 2: VFS/US 2 V interruption 3: VFS/US 2 V short circuit 4: RTC error 5: uC error	uint16	x	-	-		2.1.4	Slave1
6514	Tvl	Resolution 0.1 °C 9999: Unterbrechung -9999: Short circuit	int16	x	-	-	14.3 °C -> 143 Temperature primary warm sensor	2.1.4	Slave1
6515	Tww	Resolution 0.1 °C 9999: Unterbrechung -9999: Short circuit	int16	x	-	-	14.3 °C -> 143 Temperature secondary warm sensor	2.1.4	Slave1
6516	Tkw	Resolution 0.1 °C 9999: Unterbrechung -9999: Short circuit	int16	x	-	-	14.3 °C -> 143 Temperature secondary cold sensor	2.1.4	Slave1
6517	T buffer	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	-	-	14.3 °C -> 143 Temperature buffer sensor	2.1.4	Slave1
6518	T stratification	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	-	-	14.3 °C -> 143 Temperature stratification of return sensor	2.1.4	Slave1
6519	T circulation	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	-	-	14.3 °C -> 143 Temperature circulation sensor	2.1.4	Slave1
6520	Vprimary	Resolution 0.1 l/min 9999 = Interruption -8888 = No sensor	int16	x	-	-	17.5 l/min -> 175 Primary flow (flowsensor 1)	2.1.4	Slave1
6521	Vsecondary	Resolution 0.1 l/min 9999 = Interruption -8888 = No sensor	int16	x	-	-	17.5 l/min -> 175 Secondary flow (flowsensor 1)	2.1.4	Slave1
6522	PWM primary	Resolution 0.1%	int16	x	x	x	50% -> 500	2.1.4	Slave1
6523	PWM circulation	Resolution 0.1%	int16	x	x	x	50% -> 500	2.1.4	Slave1
6524	Control output R1	0: Off 100: On	uint8	x	x	x	Only writable in manual mode	2.1.4	Slave1
6525	Control output R2	0: Off 100: On	uint8	x	x	x	Only writable in manual mode	2.1.4	Slave1
6526	Control output R3	0: Off 100: On	uint8	x	x	x	Only writable in manual mode	2.1.4	Slave1
6527	Tww_set_temperature	60°C -> 60	uint8	x	-	-	D.H.W. set temperatur	2.1.4	Slave1

6528	Tww_modulation_temperature	60°C -> 600	uint16	x	-	-	Calculated set point of modulation temperature regulation	2.1.4		Slave1
6529	Tset_temperature_current	60°C -> 600	uint16	x	-	-	Set point, currently in use	2.1.4		Slave1
6530	T cold water cascade	60°C -> 600	uint16	x	-	-	Calculated value of the master. It's the highest T cold sensor data of the active modules. The master calculate this value and send it to the slaves. This value ist among other things needed for the stratification of return function at the slave.	2.1.4		Slave1
6580	Error free [High]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave1
6581	Error free [Low]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave1
6582	CRC [High]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave1
6583	CRC [Low]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave1
6584	Timeout [High]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave1
6585	Timeout [Low]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave1
6586	Illegal function [High]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave1
6587	Illegal function [Low]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave1
6588	Illigal address [High]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave1
6589	Illigal address [Low]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave1
6590	Illigal data [High]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave1
6591	Illigal data [Low]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave1
6592	Server error [High]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave1
6593	Server error [Low]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave1
6594	Other [High]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave1
6595	Other [Low]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave1
6690	FW Date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		2.1.4		Slave1
6691	FW Time	Hour * 100 + Minute	uint16	x	-	-		2.1.4		Slave1
6692	FW Version - Major release	Major release	uint16	x	-	-		2.1.4		Slave1
6693	FW Version - Minor release	Minor release	uint16	x	-	-		2.1.4		Slave1
6694	FW Version - patch level	Patch level	uint16	x	-	-		2.1.4		Slave1
6695	FW Build Nummer		uint16	x	-	-		2.1.4		Slave1
6696	PCB Version		uint16	x	-	-		2.1.4		Slave1
6697	Assembly variant		uint16	x	-	-		2.1.4		Slave1
6900	Tvl Min	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only delete with 10000	2.1.4	x	Slave1
6901	Tvl Max	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only delete with 10000	2.1.4	x	Slave1
6902	Tkw Min	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only delete with 10000	2.1.4	x	Slave1
6903	Tkw Max	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only delete with 10000	2.1.4	x	Slave1
6904	Tww Min	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only delete with 10000	2.1.4	x	Slave1
6905	Tww Max	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only delete with 10000	2.1.4	x	Slave1
6906	Tbuffer Min	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only delete with 10000	2.1.4	x	Slave1
6907	Tbuffer Max	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only delete with 10000	2.1.4	x	Slave1
6908	Tstratification Min	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only delete with 10000	2.1.4	x	Slave1
6909	Tstratification Max	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only delete with 10000	2.1.4	x	Slave1
6910	Tcirculation Min	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only delete with 10000	2.1.4	x	Slave1
6911	Tcirculation Max	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only delete with 10000	2.1.4	x	Slave1
6916	Vsecondary Min	Resolution 0.1 l/min 9999 = Interruption -8888 = No sensor	int16	x	x	x	17.5 l/min -> 175 write only delete with 10000	2.1.4	x	Slave1
6917	Vsecondary Max	Resolution 0.1 l/min 9999 = Interruption -8888 = No sensor	int16	x	x	x	17.5 l/min -> 175 write only delete with 10000	2.1.4	x	Slave1
6918	PWM primary Min	Resolution 0.1%	int16	x	x	x	write only delete with 10000	2.1.4	x	Slave1
6919	PWM primary Max	Resolution 0.1%	int16	x	x	x	write only delete with 10000	2.1.4	x	Slave1
6920	PWM circulation Min	Resolution 0.1%	int16	x	x	x	write only delete with 10000	2.1.4	x	Slave1
6921	PWM circulation Max	Resolution 0.1%	int16	x	x	x	write only delete with 10000	2.1.4	x	Slave1
6922	Switch cycles output R1 [High]		uint16	x	-	-	Only complet high and low	2.1.4	x	Slave1
6923	Switch cycles output R1 [Low]		uint16	x	-	-	Only complet high and low	2.1.4	x	Slave1
6924	Switch cycles output R2 [High]		uint16	x	-	-	Only complet high and low	2.1.4	x	Slave1
6925	Switch cycles output R2 [Low]		uint16	x	-	-	Only complet high and low	2.1.4	x	Slave1

6926	Switch cycles output R3 [High]		uint16	x	-	-	Only complet high and low	2.1.4	x	Slave1
6927	Switch cycles output R3 [Low]		uint16	x	-	-	Only complet high and low	2.1.4	x	Slave1
6928	Operating hours output R1 [High]	Resolution 1min	uint16	x	-	-	Only complet high and low	2.1.4	x	Slave1
6929	Operating hours output R1 [Low]	Resolution 1min	uint16	x	-	-	Only complet high and low	2.1.4	x	Slave1
6930	Operating hours output R2 [High]	Resolution 1min	uint16	x	-	-	Only complet high and low	2.1.4	x	Slave1
6931	Operating hours output R2 [Low]	Resolution 1min	uint16	x	-	-	Only complet high and low	2.1.4	x	Slave1
6932	Operating hours output R3 [High]	Resolution 1min	uint16	x	-	-	Only complet high and low	2.1.4	x	Slave1
6933	Operating hours output R3 [Low]	Resolution 1min	uint16	x	-	-	Only complet high and low	2.1.4	x	Slave1
6934	Operating hours pwm pri [High]	Resolution 1min	uint16	x	-	-	Only complet high and low	2.1.4	x	Slave1
6935	Operating hours pwm pri [Low]	Resolution 1min	uint16	x	-	-	Only complet high and low	2.1.4	x	Slave1
6936	Operating hours pwm circ [High]	Resolution 1min	uint16	x	-	-	Only complet high and low	2.1.4	x	Slave1
6937	Operating hours pwm circ [Low]	Resolution 1min	uint16	x	-	-	Only complet high and low	2.1.4	x	Slave1
6938	Operating hours modul last 24h	Resolution 1min	uint16	x	-	-	Time where the primary pump was on	2.1.4	x	Slave1
6939	Flow actually liter day [High]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 M liter	2.1.4	x	Slave1
6940	Flow actually liter day [Low]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 M liter	2.1.4	x	Slave1
6941	Flow actually liter week [High]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 M liter	2.1.4	x	Slave1
6942	Flow actually liter week [Low]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 M liter	2.1.4	x	Slave1
6943	Flow actually liter month [High]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 M liter	2.1.4	x	Slave1
6944	Flow actually liter month [Low]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 M liter	2.1.4	x	Slave1

6945	Flow actually liter total [High]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 M liter	2.1.4	x	Slave1
6946	Flow actually liter total [Low]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 M liter	2.1.4	x	Slave1
6947	Heat quantity day [High]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 MWh	2.1.4	x	Slave1
6948	Heat quantity day [Low]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 MWh	2.1.4	x	Slave1
6949	Heat quantity week [High]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 MWh	2.1.4	x	Slave1
6950	Heat quantity week [Low]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 MWh	2.1.4	x	Slave1
6951	Heat quantity month [High]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 MWh	2.1.4	x	Slave1
6952	Heat quantity month [Low]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 MWh	2.1.4	x	Slave1

6953	Heat quantity total [High]	Coded XXZZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 MWh	2.1.4	x	Slave1
6954	Heat quantity total [Low]	Coded XXZZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 MWh	2.1.4	x	Slave1
6955	Heat quantity total since (Date)	(Month * 40 + Day) * 100 + Year	uint16	x	x	x		2.1.4	x	Slave1
6956	Heat quantity total since (Time)	Hour * 100 + Minute	uint16	x	x	x		2.1.4	x	Slave1
6957	Flow total since (Date)	(Month * 40 + Day) * 100 + Year	uint16	x	x	x		2.1.4	x	Slave1
6958	Flow total since (Time)	Hour * 100 + Minute+G141	uint16	x	x	x		2.1.4	x	Slave1
6959	T cold water cascade Min	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only delete with 10000	2.1.4	x	Slave1
6960	T cold water cascade Max	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only delete with 10000	2.1.4	x	Slave1
7013	Bootloader FW Version - Major release	Major release	uint16	x	-	-		3.0.x		Slave2
7014	Bootloader FW Version - Minor release	Minor release	uint16	x	-	-		3.0.x		Slave2
7015	Bootloader FW Version - patch level	Patch level	uint16	x	-	-		3.0.x		Slave2
7362	Operating mode primary pump	0: manual mode 1: automatic mode	uint8	x	x	x	PWM signal	2.1.4		Slave2
7363	Operating mode circulation pump	0: manual mode 1: automatic mode	uint8	x	x	x	PWM signal	2.1.4		Slave2
7364	Operating mode output R1	0: manual mode 1: automatic mode	uint8	x	x	x		2.1.4		Slave2
7365	Operating mode output R2	0: manual mode 1: automatic mode	uint8	x	x	x		2.1.4		Slave2
7366	Operating mode output R3	0: manual mode 1: automatic mode	uint8	x	x	x		2.1.4		Slave2
7367	Operating mode input S1	0: manual mode 1: automatic mode	uint8	x	x	x		2.1.4		Slave2
7368	Operating mode input S2	0: manual mode 1: automatic mode	uint8	x	x	x		2.1.4		Slave2
7369	Operating mode input S3	0: manual mode 1: automatic mode	uint8	x	x	x		2.1.4		Slave2
7370	Operating mode input S4	0: manual mode 1: automatic mode	uint8	x	x	x		2.1.4		Slave2
7371	Operating mode VFS/US T - Connector 1	0: manual mode 1: automatic mode	uint8	x	x	x		2.1.4		Slave2
7372	Operating mode VFS/US V - Connector 1	0: manual mode 1: automatic mode	uint8	x	x	x		2.1.4		Slave2
7373	Operating mode VFS/US T - Connector 2	0: manual mode 1: automatic mode	uint8	x	x	x		2.1.4		Slave2
7374	Operating mode VFS/US V - Connector 2	0: manual mode 1: automatic mode	uint8	x	x	x		2.1.4		Slave2
7500	S1	Resolution 0.1 °C 9999: Unterbrechung -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 Raw data	2.1.4	x (manual mode)	Slave2
7501	S2	Resolution 0.1 °C 9999: Unterbrechung -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 Raw data	2.1.4	x (manual mode)	Slave2
7502	S3	Resolution 0.1 °C 9999: Unterbrechung -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 Raw data	2.1.4	x (manual mode)	Slave2
7503	S4	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 Raw data	2.1.4	x (manual mode)	Slave2
7504	VFS/US 1 T	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 Raw data	2.1.4	x (manual mode)	Slave2
7505	VFS/US 1 V	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 Raw data	2.1.4	x (manual mode)	Slave2
7506	VFS/US 2 T	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 Raw data	2.1.4	x (manual mode)	Slave2
7507	VFS/US 2 V	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 Raw data	2.1.4	x (manual mode)	Slave2

7508	Status 1 - Manual mode / Error exists	Bit coded 0: Error exists 1: Pri. pump pwm manual mode 2: Circ. pwm manual mode 3: Output R1 manual mode 4: Output R2 manual mode 5: Output R3 manual mode 6: S1 manual mode 7: S2 manual mode 8: S3 manual mode 9: S4 manual mode 10: VFS/US 1 T manual mode 11: VFS/US 1 V manual mode 12: VFS/US 2 T manual mode 13: VFS/US 2 V manual mode	uint16	x	-	-	Section to retrieve: 0: System parameter 1: Control parameter 2: Statistics	2.1.4	Slave2
7509	Status 2 - Function	Bit coded 0: Circ. function T available 1: Circ. function time available 2: Circ. function on demand available 3: Circ. function T active 4: Circ. function time active 5: Circ. function on demand active 6: Stratification of return available 7: Stratification of return Locked protection active 8: Modulation hot water available 9: Modulation hot water active 10: Comfort function available 11: Comfort function active 12: Comfort function pump locked 13: Disinfection available 14: Disinfection active 15: Disinfection last one successful	uint16	x	-	-	Bit 12: When the temperature is after 100s to low, there is a protection (wait time) from 1h.	2.1.4	Slave2
7510	Status 3 - Function	Bit coded 0: Error relay available 1: Error relay active 2: Parallel relay available 3: Parallel relay active 4: Hygienic flush available 5: Hygienic flush active 6: Buffer storage available 7: Buffer storage active 8: Heating available 9: Heating active 10: Overtemperature protection active 11: Average flow active 12: Cascade valve on 13: User plant user 14: User plumber 15: User PAW	uint16	x	-	-		2.1.4	Slave2
7511	Status 4	Bit coded 0: First start up pass 1: Hydraulic system adaptation running 2: Cascade valve open 3: Short tap volume detected. Circulation pump must start.	uint16	x	-	-		2.1.4	Slave2
7512	Status 5 - Sensor error	Bit coded 0: Tvl interruption 1: Tvl short circuit 2: Tbuffer interruption 3: Tbuffer short circuit 4: Tww interruption 5: Tww short circuit 6: Tkw interruption 7: Tkw short circuit 8: Tstratification interruption 9: Tstratification short circuit 10: Tcirculation interruption 11: Tcirculation short circuit 12: VFS/US 1 T interruption 13: VFS/US 1 T short circuit 14: VFS/US 1 V interruption 15: VFS/US 1 V short circuit	uint16	x	-	-		2.1.4	Slave2
7513	Status 6 - Sensor error	Bit coded 0: VFS/US 2 T interruption 1: VFS/US 2 T short circuit 2: VFS/US 2 V interruption 3: VFS/US 2 V short circuit 4: RTC error 5: uC error	uint16	x	-	-		2.1.4	Slave2
7514	Tvl	Resolution 0.1 °C 9999: Unterbrechung -9999: Short circuit	int16	x	-	-	14.3 °C -> 143 Temperature primary warm sensor	2.1.4	Slave2
7515	Tww	Resolution 0.1 °C 9999: Unterbrechung -9999: Short circuit	int16	x	-	-	14.3 °C -> 143 Temperature secondary warm sensor	2.1.4	Slave2
7516	Tkw	Resolution 0.1 °C 9999: Unterbrechung -9999: Short circuit	int16	x	-	-	14.3 °C -> 143 Temperature secondary cold sensor	2.1.4	Slave2
7517	T buffer	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	-	-	14.3 °C -> 143 Temperature buffer sensor	2.1.4	Slave2
7518	T stratification	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	-	-	14.3 °C -> 143 Temperature stratification of return sensor	2.1.4	Slave2
7519	T circulation	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	-	-	14.3 °C -> 143 Temperature circulation sensor	2.1.4	Slave2

Modbus Register FC3.10

7520	Vprimary	Resolution 0.1 l/min 9999 = Interruption -8888 = No sensor	int16	x	-	-	17.5 l/min -> 175 Primary flow (flowsensor 1)	2.1.4		Slave2
7521	Vsecondary	Resolution 0.1 l/min 9999 = Interruption -8888 = No sensor	int16	x	-	-	17.5 l/min -> 175 Secondary flow (flowsensor 1)	2.1.4		Slave2
7522	PWM primary	Resolution 0.1%	int16	x	x	x	50% -> 500	2.1.4		Slave2
7523	PWM circulation	Resolution 0.1%	int16	x	x	x	50% -> 500	2.1.4		Slave2
7524	Control output R1	0: Off 100: On	uint8	x	x	x	Only writable in manual mode	2.1.4		Slave2
7525	Control output R2	0: Off 100: On	uint8	x	x	x	Only writable in manual mode	2.1.4		Slave2
7526	Control output R3	0: Off 100: On	uint8	x	x	x	Only writable in manual mode	2.1.4		Slave2
7527	Tww_set_temperature	60°C -> 60	uint8	x	-	-	D.H.W. set temperatur	2.1.4		Slave2
7528	Tww_modulation_temperature	60°C -> 600	uint16	x	-	-	Calculated set point of modulation temperature regulation	2.1.4		Slave2
7529	Tset_temperature_current	60°C -> 600	uint16	x	-	-	Set point, currently in use	2.1.4		Slave2
7530	T cold water cascade	60°C -> 600	uint16	x	-	-	Calculated value of the master. It's the highest T cold sensor data of the active modules. The master calculate this value and send it to the slaves. This value ist among other things needed for the stratification of return function at the slave.	2.1.4		Slave2
7580	Error free [High]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave2
7581	Error free [Low]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave2
7582	CRC [High]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave2
7583	CRC [Low]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave2
7584	Timeout [High]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave2
7585	Timeout [Low]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave2
7586	Illegal function [High]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave2
7587	Illegal function [Low]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave2
7588	Illegal address [High]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave2
7589	Illegal address [Low]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave2
7590	Illegal data [High]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave2
7591	Illegal data [Low]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave2
7592	Server error [High]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave2
7593	Server error [Low]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave2
7594	Other [High]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave2
7595	Other [Low]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave2
7690	FW Date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		2.1.4		Slave2
7691	FW Time	Hour * 100 + Minute	uint16	x	-	-		2.1.4		Slave2
7692	FW Version - Major release	Major release	uint16	x	-	-		2.1.4		Slave2
7693	FW Version - Minor release	Minor release	uint16	x	-	-		2.1.4		Slave2
7694	FW Version - patch level	Patch level	uint16	x	-	-		2.1.4		Slave2
7695	FW Build Nummer		uint16	x	-	-		2.1.4		Slave2
7696	PCB Version		uint16	x	-	-		2.1.4		Slave2
7697	Assembly variant		uint16	x	-	-		2.1.4		Slave2
7900	Tvl Min	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only delete with 10000	2.1.4	x	Slave2
7901	Tvl Max	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only delete with 10000	2.1.4	x	Slave2
7902	Tkw Min	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only delete with 10000	2.1.4	x	Slave2
7903	Tkw Max	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only delete with 10000	2.1.4	x	Slave2
7904	Tww Min	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only delete with 10000	2.1.4	x	Slave2
7905	Tww Max	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only delete with 10000	2.1.4	x	Slave2
7906	Tbuffer Min	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only delete with 10000	2.1.4	x	Slave2
7907	Tbuffer Max	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only delete with 10000	2.1.4	x	Slave2
7908	Tstratification Min	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only delete with 10000	2.1.4	x	Slave2
7909	Tstratification Max	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only delete with 10000	2.1.4	x	Slave2
7910	Tcirculation Min	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only delete with 10000	2.1.4	x	Slave2
7911	Tcirculation Max	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only delete with 10000	2.1.4	x	Slave2
7916	Vsecondary Min	Resolution 0.1 l/min 9999 = Interruption -8888 = No sensor	int16	x	x	x	17.5 l/min -> 175 write only delete with 10000	2.1.4	x	Slave2
7917	Vsecondary Max	Resolution 0.1 l/min 9999 = Interruption -8888 = No sensor	int16	x	x	x	17.5 l/min -> 175 write only delete with 10000	2.1.4	x	Slave2
7918	PWM primary Min	Resolution 0.1%	int16	x	x	x	write only delete with 10000	2.1.4	x	Slave2

7919	PWM primary Max	Resolution 0.1%	int16	x	x	x	write only delete with 10000	2.1.4	x	Slave2
7920	PWM circulation Min	Resolution 0.1%	int16	x	x	x	write only delete with 10000	2.1.4	x	Slave2
7921	PWM circulation Max	Resolution 0.1%	int16	x	x	x	write only delete with 10000	2.1.4	x	Slave2
7922	Switch cycles output R1 [High]		uint16	x	-	-	Only complet high and low	2.1.4	x	Slave2
7923	Switch cycles output R1 [Low]		uint16	x	-	-	Only complet high and low	2.1.4	x	Slave2
7924	Switch cycles output R2 [High]		uint16	x	-	-	Only complet high and low	2.1.4	x	Slave2
7925	Switch cycles output R2 [Low]		uint16	x	-	-	Only complet high and low	2.1.4	x	Slave2
7926	Switch cycles output R3 [High]		uint16	x	-	-	Only complet high and low	2.1.4	x	Slave2
7927	Switch cycles output R3 [Low]		uint16	x	-	-	Only complet high and low	2.1.4	x	Slave2
7928	Operating hours output R1 [High]	Resolution 1min	uint16	x	-	-	Only complet high and low	2.1.4	x	Slave2
7929	Operating hours output R1 [Low]	Resolution 1min	uint16	x	-	-	Only complet high and low	2.1.4	x	Slave2
7930	Operating hours output R2 [High]	Resolution 1min	uint16	x	-	-	Only complet high and low	2.1.4	x	Slave2
7931	Operating hours output R2 [Low]	Resolution 1min	uint16	x	-	-	Only complet high and low	2.1.4	x	Slave2
7932	Operating hours output R3 [High]	Resolution 1min	uint16	x	-	-	Only complet high and low	2.1.4	x	Slave2
7933	Operating hours output R3 [Low]	Resolution 1min	uint16	x	-	-	Only complet high and low	2.1.4	x	Slave2
7934	Operating hours pwm pri [High]	Resolution 1min	uint16	x	-	-	Only complet high and low	2.1.4	x	Slave2
7935	Operating hours pwm pri [Low]	Resolution 1min	uint16	x	-	-	Only complet high and low	2.1.4	x	Slave2
7936	Operating hours pwm circ [High]	Resolution 1min	uint16	x	-	-	Only complet high and low	2.1.4	x	Slave2
7937	Operating hours pwm circ [Low]	Resolution 1min	uint16	x	-	-	Only complet high and low	2.1.4	x	Slave2
7938	Operating hours modul last 24h	Resolution 1min	uint16	x	-	-	Time where the primary pump was on	2.1.4	x	Slave2
7939	Flow actually liter day [High]	Coded XXZZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 M liter	2.1.4	x	Slave2
7940	Flow actually liter day [Low]	Coded XXZZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 M liter	2.1.4	x	Slave2
7941	Flow actually liter week [High]	Coded XXZZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 M liter	2.1.4	x	Slave2
7942	Flow actually liter week [Low]	Coded XXZZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 M liter	2.1.4	x	Slave2
7943	Flow actually liter month [High]	Coded XXZZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 M liter	2.1.4	x	Slave2

7944	Flow actually liter month [Low]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 M liter	2.1.4	x	Slave2
7945	Flow actually liter total [High]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 M liter	2.1.4	x	Slave2
7946	Flow actually liter total [Low]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 M liter	2.1.4	x	Slave2
7947	Heat quantity day [High]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 MWh	2.1.4	x	Slave2
7948	Heat quantity day [Low]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 MWh	2.1.4	x	Slave2
7949	Heat quantity week [High]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 MWh	2.1.4	x	Slave2
7950	Heat quantity week [Low]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 MWh	2.1.4	x	Slave2
7951	Heat quantity month [High]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 MWh	2.1.4	x	Slave2

7952	Heat quantity month [Low]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 MWh	2.1.4	x	Slave2
7953	Heat quantity total [High]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 MWh	2.1.4	x	Slave2
7954	Heat quantity total [Low]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 MWh	2.1.4	x	Slave2
7955	Heat quantity total since (Date)	(Month * 40 + Day) * 100 + Year	uint16	x	x	x		2.1.4	x	Slave2
7956	Heat quantity total since (Time)	Hour * 100 + Minute	uint16	x	x	x		2.1.4	x	Slave2
7957	Flow total since (Date)	(Month * 40 + Day) * 100 + Year	uint16	x	x	x		2.1.4	x	Slave2
7958	Flow total since (Time)	Hour * 100 + Minute+G141	uint16	x	x	x		2.1.4	x	Slave2
7959	T cold water cascade Min	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only delete with 10000	2.1.4	x	Slave2
7960	T cold water cascade Max	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only delete with 10000	2.1.4	x	Slave2
8013	Bootloader FW Version - Major release	Major release	uint16	x	-	-		3.0.x		Slave3
8014	Bootloader FW Version - Minor release	Minor release	uint16	x	-	-		3.0.x		Slave3
8015	Bootloader FW Version - patch level	Patch level	uint16	x	-	-		3.0.x		Slave3
8362	Operating mode primary pump	0: manual mode 1: automatic mode	uint8	x	x	x	PWM signal	2.1.4		Slave3
8363	Operating mode circulation pump	0: manual mode 1: automatic mode	uint8	x	x	x	PWM signal	2.1.4		Slave3
8364	Operating mode output R1	0: manual mode 1: automatic mode	uint8	x	x	x		2.1.4		Slave3
8365	Operating mode output R2	0: manual mode 1: automatic mode	uint8	x	x	x		2.1.4		Slave3
8366	Operating mode output R3	0: manual mode 1: automatic mode	uint8	x	x	x		2.1.4		Slave3
8367	Operating mode input S1	0: manual mode 1: automatic mode	uint8	x	x	x		2.1.4		Slave3
8368	Operating mode input S2	0: manual mode 1: automatic mode	uint8	x	x	x		2.1.4		Slave3
8369	Operating mode input S3	0: manual mode 1: automatic mode	uint8	x	x	x		2.1.4		Slave3
8370	Operating mode input S4	0: manual mode 1: automatic mode	uint8	x	x	x		2.1.4		Slave3
8371	Operating mode VFS/US T - Connector 1	0: manual mode 1: automatic mode	uint8	x	x	x		2.1.4		Slave3
8372	Operating mode VFS/US V - Connector 1	0: manual mode 1: automatic mode	uint8	x	x	x		2.1.4		Slave3
8373	Operating mode VFS/US T - Connector 2	0: manual mode 1: automatic mode	uint8	x	x	x		2.1.4		Slave3
8374	Operating mode VFS/US V - Connector 2	0: manual mode 1: automatic mode	uint8	x	x	x		2.1.4		Slave3
8500	S1	Resolution 0.1 °C 9999: Unterbrechung -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 Raw data	2.1.4	x (manual mode)	Slave3
8501	S2	Resolution 0.1 °C 9999: Unterbrechung -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 Raw data	2.1.4	x (manual mode)	Slave3
8502	S3	Resolution 0.1 °C 9999: Unterbrechung -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 Raw data	2.1.4	x (manual mode)	Slave3
8503	S4	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 Raw data	2.1.4	x (manual mode)	Slave3
8504	VFS/US 1 T	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 Raw data	2.1.4	x (manual mode)	Slave3
8505	VFS/US 1 V	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 Raw data	2.1.4	x (manual mode)	Slave3
8506	VFS/US 2 T	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 Raw data	2.1.4	x (manual mode)	Slave3

8507	VFS/US 2 V	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 Raw data	2.1.4	x (manual mode)	Slave3
8508	Status 1 - Manual mode / Error exists	Bit coded 0: Error exists 1: Pri. pump pwm manual mode 2: Circ. pwm manual mode 3: Output R1 manual mode 4: Output R2 manual mode 5: Output R3 manual mode 6: S1 manual mode 7: S2 manual mode 8: S3 manual mode 9: S4 manual mode 10: VFS/US 1 T manual mode 11: VFS/US 1 V manual mode 12: VFS/US 2 T manual mode 13: VFS/US 2 V manual mode	uint16	x	-	-	Section to retrieve: 0: System parameter 1: Control parameter 2: Statistics	2.1.4		Slave3
8509	Status 2 - Function	Bit coded 0: Circ. function T available 1: Circ. function time available 2: Circ. function on demand available 3: Circ. function T active 4: Circ. function time active 5: Circ. function on demand active 6: Stratification of return available 7: Stratification of return Locked protection active 8: Modulation hot water available 9: Modulation hot water active 10: Comfort function available 11: Comfort function active 12: Comfort function pump locked 13: Disinfection available 14: Disinfection active 15: Disinfection last one successful	uint16	x	-	-	Bit 12: When the temperature is after 100s to low, there is a protection (wait time) from 1h.	2.1.4		Slave3
8510	Status 3 - Function	Bit coded 0: Error relay available 1: Error relay active 2: Parallel relay available 3: Parallel relay active 4: Hygienic flush available 5: Hygienic flush active 6: Buffer storage available 7: Buffer storage active 8: Heating available 9: Heating active 10: Overtemperature protection active 11: Average flow active 12: Cascade valve on 13: User plant user 14: User plumber 15: User PAW	uint16	x	-	-		2.1.4		Slave3
8511	Status 4	Bit coded 0: First start up pass 1: Hydraulic system adaptation running 2: Cascade valve open 3: Short tap volume detected. Circulation pump must start.	uint16	x	-	-		2.1.4		Slave3
8512	Status 5 - Sensor error	Bit coded 0: Tvl interruption 1: Tvl short circuit 2: Tbuffer interruption 3: Tbuffer short circuit 4: Tww interruption 5: Tww short circuit 6: Tkw interruption 7: Tkw short circuit 8: Tstratification interruption 9: Tstratification short circuit 10: Tcirculation interruption 11: Tcirculation short circuit 12: VFS/US 1 T interruption 13: VFS/US 1 T short circuit 14: VFS/US 1 V interruption 15: VFS/US 1 V short circuit	uint16	x	-	-		2.1.4		Slave3
8513	Status 6 - Sensor error	Bit coded 0: VFS/US 2 T interruption 1: VFS/US 2 T short circuit 2: VFS/US 2 V interruption 3: VFS/US 2 V short circuit 4: RTC error 5: uC error	uint16	x	-	-		2.1.4		Slave3
8514	Tvl	Resolution 0.1 °C 9999: Unterbrechung -9999: Short circuit	int16	x	-	-	14.3 °C -> 143 Temperature primary warm sensor	2.1.4		Slave3
8515	Tww	Resolution 0.1 °C 9999: Unterbrechung -9999: Short circuit	int16	x	-	-	14.3 °C -> 143 Temperature secondary warm sensor	2.1.4		Slave3
8516	Tkw	Resolution 0.1 °C 9999: Unterbrechung -9999: Short circuit	int16	x	-	-	14.3 °C -> 143 Temperature secondary cold sensor	2.1.4		Slave3
8517	T buffer	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	-	-	14.3 °C -> 143 Temperature buffer sensor	2.1.4		Slave3
8518	T stratification	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	-	-	14.3 °C -> 143 Temperature stratification of return sensor	2.1.4		Slave3

Modbus Register FC3.10

8519	T circulation	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	-	-	14.3 °C -> 143 Temperature circulation sensor	2.1.4		Slave3
8520	Vprimary	Resolution 0.1 l/min 9999 = Interruption -8888 = No sensor	int16	x	-	-	17.5 l/min -> 175 Primary flow (flowsensor 1)	2.1.4		Slave3
8521	Vsecondary	Resolution 0.1 l/min 9999 = Interruption -8888 = No sensor	int16	x	-	-	17.5 l/min -> 175 Secondary flow (flowsensor 1)	2.1.4		Slave3
8522	PWM primary	Resolution 0.1%	int16	x	x	x	50% -> 500	2.1.4		Slave3
8523	PWM circulation	Resolution 0.1%	int16	x	x	x	50% -> 500	2.1.4		Slave3
8524	Control output R1	0: Off 100: On	uint8	x	x	x	Only writable in manual mode	2.1.4		Slave3
8525	Control output R2	0: Off 100: On	uint8	x	x	x	Only writable in manual mode	2.1.4		Slave3
8526	Control output R3	0: Off 100: On	uint8	x	x	x	Only writable in manual mode	2.1.4		Slave3
8527	Tww_set_temperature	60°C -> 60	uint8	x	-	-	D.H.W. set temperatur	2.1.4		Slave3
8528	Tww_modulation_temperature	60°C -> 600	uint16	x	-	-	Calculated set point of modulation temperature regulation	2.1.4		Slave3
8529	Tset_temperature_current	60°C -> 600	uint16	x	-	-	Set point, currently in use	2.1.4		Slave3
8530	T cold water cascade	60°C -> 600	uint16	x	-	-	Calculated value of the master. It's the highest T cold sensor data of the active modules. The master calculate this value and send it to the slaves. This value ist among other things needed for the stratification of return function at the slave.	2.1.4		Slave3
8580	Error free [High]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave3
8581	Error free [Low]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave3
8582	CRC [High]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave3
8583	CRC [Low]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave3
8584	Timeout [High]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave3
8585	Timeout [Low]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave3
8586	Illegal function [High]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave3
8587	Illegal function [Low]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave3
8588	Illigal address [High]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave3
8589	Illigal address [Low]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave3
8590	Illigal data [High]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave3
8591	Illigal data [Low]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave3
8592	Server error [High]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave3
8593	Server error [Low]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave3
8594	Other [High]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave3
8595	Other [Low]	Modbus communication counter	uint16	x	-	-		3.0.2		Slave3
8690	FW Date	(Month * 40 + Day) * 100 + Year	uint16	x	-	-		2.1.4		Slave3
8691	FW Time	Hour * 100 + Minute	uint16	x	-	-		2.1.4		Slave3
8692	FW Version - Major release	Major release	uint16	x	-	-		2.1.4		Slave3
8693	FW Version - Minor release	Minor release	uint16	x	-	-		2.1.4		Slave3
8694	FW Version - patch level	Patch level	uint16	x	-	-		2.1.4		Slave3
8695	FW Build Nummer		uint16	x	-	-		2.1.4		Slave3
8696	PCB Version		uint16	x	-	-		2.1.4		Slave3
8697	Assembly variant		uint16	x	-	-		2.1.4		Slave3
8900	Tvl Min	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only delete with 10000	2.1.4	x	Slave3
8901	Tvl Max	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only delete with 10000	2.1.4	x	Slave3
8902	Tkw Min	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only delete with 10000	2.1.4	x	Slave3
8903	Tkw Max	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only delete with 10000	2.1.4	x	Slave3
8904	Tww Min	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only delete with 10000	2.1.4	x	Slave3
8905	Tww Max	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only delete with 10000	2.1.4	x	Slave3
8906	Tbuffer Min	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only delete with 10000	2.1.4	x	Slave3
8907	Tbuffer Max	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only delete with 10000	2.1.4	x	Slave3
8908	Tstratification Min	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only delete with 10000	2.1.4	x	Slave3
8909	Tstratification Max	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only delete with 10000	2.1.4	x	Slave3
8910	Tcirculation Min	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only delete with 10000	2.1.4	x	Slave3
8911	Tcirculation Max	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only delete with 10000	2.1.4	x	Slave3
8916	Vsecondary Min	Resolution 0.1 l/min 9999 = Interruption -8888 = No sensor	int16	x	x	x	17.5 l/min -> 175 write only delete with 10000	2.1.4	x	Slave3

8917	Vsecondary Max	Resolution 0.1 l/min 9999 = Interruption -8888 = No sensor	int16	x	x	x	17.5 l/min -> 175 write only delete with - 10000	2.1.4	x	Slave3
8918	PWM primary Min	Resolution 0.1%	int16	x	x	x	write only delete with 10000	2.1.4	x	Slave3
8919	PWM primary Max	Resolution 0.1%	int16	x	x	x	write only delete with - 10000	2.1.4	x	Slave3
8920	PWM circulation Min	Resolution 0.1%	int16	x	x	x	write only delete with 10000	2.1.4	x	Slave3
8921	PWM circulation Max	Resolution 0.1%	int16	x	x	x	write only delete with - 10000	2.1.4	x	Slave3
8922	Switch cycles output R1 [High]		uint16	x	-	-	Only complet high and low	2.1.4	x	Slave3
8923	Switch cycles output R1 [Low]		uint16	x	-	-	Only complet high and low	2.1.4	x	Slave3
8924	Switch cycles output R2 [High]		uint16	x	-	-	Only complet high and low	2.1.4	x	Slave3
8925	Switch cycles output R2 [Low]		uint16	x	-	-	Only complet high and low	2.1.4	x	Slave3
8926	Switch cycles output R3 [High]		uint16	x	-	-	Only complet high and low	2.1.4	x	Slave3
8927	Switch cycles output R3 [Low]		uint16	x	-	-	Only complet high and low	2.1.4	x	Slave3
8928	Operating hours output R1 [High]	Resolution 1min	uint16	x	-	-	Only complet high and low	2.1.4	x	Slave3
8929	Operating hours output R1 [Low]	Resolution 1min	uint16	x	-	-	Only complet high and low	2.1.4	x	Slave3
8930	Operating hours output R2 [High]	Resolution 1min	uint16	x	-	-	Only complet high and low	2.1.4	x	Slave3
8931	Operating hours output R2 [Low]	Resolution 1min	uint16	x	-	-	Only complet high and low	2.1.4	x	Slave3
8932	Operating hours output R3 [High]	Resolution 1min	uint16	x	-	-	Only complet high and low	2.1.4	x	Slave3
8933	Operating hours output R3 [Low]	Resolution 1min	uint16	x	-	-	Only complet high and low	2.1.4	x	Slave3
8934	Operating hours pwm pri [High]	Resolution 1min	uint16	x	-	-	Only complet high and low	2.1.4	x	Slave3
8935	Operating hours pwm pri [Low]	Resolution 1min	uint16	x	-	-	Only complet high and low	2.1.4	x	Slave3
8936	Operating hours pwm circ [High]	Resolution 1min	uint16	x	-	-	Only complet high and low	2.1.4	x	Slave3
8937	Operating hours pwm circ [Low]	Resolution 1min	uint16	x	-	-	Only complet high and low	2.1.4	x	Slave3
8938	Operating hours modul last 24h	Resolution 1min	uint16	x	-	-	Time where the primary pump was on	2.1.4	x	Slave3
8939	Flow actually liter day [High]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 M liter	2.1.4	x	Slave3
8940	Flow actually liter day [Low]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 M liter	2.1.4	x	Slave3
8941	Flow actually liter week [High]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 M liter	2.1.4	x	Slave3
8942	Flow actually liter week [Low]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 M liter	2.1.4	x	Slave3

8943	Flow actually liter month [High]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 M liter	2.1.4	x	Slave3
8944	Flow actually liter month [Low]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 M liter	2.1.4	x	Slave3
8945	Flow actually liter total [High]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 M liter	2.1.4	x	Slave3
8946	Flow actually liter total [Low]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 M liter	2.1.4	x	Slave3
8947	Heat quantity day [High]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 MWh	2.1.4	x	Slave3
8948	Heat quantity day [Low]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 MWh	2.1.4	x	Slave3
8949	Heat quantity week [High]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 MWh	2.1.4	x	Slave3
8950	Heat quantity week [Low]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 MWh	2.1.4	x	Slave3

8951	Heat quantity month [High]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 MWh	2.1.4	x	Slave3
8952	Heat quantity month [Low]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 MWh	2.1.4	x	Slave3
8953	Heat quantity total [High]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 MWh	2.1.4	x	Slave3
8954	Heat quantity total [Low]	Coded XXZZZZZZZ XX: Prefix 0: 1: k 2: M 3: G 4: T 5: P ZZZZZZZ: Value. 3 digits before the digit point. The remaining pieces are decimal places	uint16	x	x	x	Delete with 0 - Only complet high and lowBsp.: 203659247 -> 36,59247 MWh	2.1.4	x	Slave3
8955	Heat quantity total since (Date)	(Month * 40 + Day) * 100 + Year	uint16	x	x	x		2.1.4	x	Slave3
8956	Heat quantity total since (Time)	Hour * 100 + Minute	uint16	x	x	x		2.1.4	x	Slave3
8957	Flow total since (Date)	(Month * 40 + Day) * 100 + Year	uint16	x	x	x		2.1.4	x	Slave3
8958	Flow total since (Time)	Hour * 100 + Minute+G141	uint16	x	x	x		2.1.4	x	Slave3
8959	T cold water cascade Min	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only delete with 10000	2.1.4	x	Slave3
8960	T cold water cascade Max	Resolution 0.1 °C 9999: Interruption -9999: Short circuit	int16	x	x	x	14.3 °C -> 143 write only delete with 10000	2.1.4	x	Slave3

Alarm history ID	
ID	Note
0	SENSOR 1 ERROR
1	SENSOR 2 ERROR
2	SENSOR 3 ERROR
3	SENSOR 4 ERROR
4	FLOW METER FLOW SENSOR ERROR
5	FLOW METER TEMP SENSOR ERROR
6	PUMP 1 ERROR NO PWM
7	PUMP 1 ERROR VOLTAGE TOO LOW
8	PUMP 1 ELECTRICAL ERROR
9	PUMP 1 ERROR PUMP BLOCKED
10	PUMP 2 ERROR NO PWM
11	PUMP 2 ERROR VOLTAGE TOO LOW
12	PUMP 2 ELECTRICAL ERROR
13	PUMP 2 ERROR PUMP BLOCKED
14	COMM ERROR ETHERNET MODULE
15	COMM ERROR GATEWAY MODULE
16	COMM ERROR MODBUS
17	DISINFECTION FAILED
18	USB NO FREE SPACE
19	FLOW METER 2 FLOW SENSOR ERROR
20	FLOW METER 2 TEMP SENSOR ERROR
21	HOT WATER MODULATION
22	SENSOR 1 SIMULATION ACTIVE
23	SENSOR 1 SIMULATION INACTIVE
24	SENSOR 2 SIMULATION ACTIVE
25	SENSOR 2 SIMULATION INACTIVE
26	SENSOR 3 SIMULATION ACTIVE
27	SENSOR 3 SIMULATION INACTIVE
28	SENSOR 4 SIMULATION ACTIVE
29	SENSOR 4 SIMULATION INACTIVE
30	VFS 1 V SIMULATION ACTIVE
31	VFS 1 V SIMULATION INACTIVE
32	VFS 1 T SIMULATION ACTIVE
33	VFS 1 T SIMULATION INACTIVE
34	VFS 2 V SIMULATION ACTIVE
35	VFS 2 V SIMULATION INACTIVE
36	VFS 2 T SIMULATION ACTIVE
37	VFS 2 T SIMULATION INACTIVE

Parameter history ID	
ID	Note
0	AdvancedSettings DHWTempAttenuation
1	AlarmRelay Active
2	AlarmRelay RelaySelection
3	AlarmRelay Inversion
4	AlarmRelay PT100Error
5	AlarmRelay VFSError
6	AlarmRelay UcError
7	AlarmRelay TimeError
8	AlarmRelay CommError
9	AlarmRelay PumpError
10	AlarmRelay DisinfectionError
11	Buffer Active
12	Buffer Sensor
13	Cascade ControllerType
14	Cascade SwitchoverDelay
15	Cascade SwitchoverON
16	Cascade SwitchoverOFF
17	Circulation Active
18	Circulation TemperatureControll
19	Circulation TimeControll
20	Circulation OnDemandControll
21	Circulation OnDemandWorkTime
22	Circulation OnDemandBreakTime
23	Circulation SensorSelection
24	Circulation TempON
25	Circulation DeltaOFF
26	Circulation ContinuousOperation
27	Circulation PumpSpeed
28	ComfortFunction Active
29	ComfortFunction Time
30	ComfortFunction DeltaT
31	ComfortFunction Histeresis
32	ComfortFunction PumpSpeed
33	ComfortFunction ContinuousOperation
34	CyclicOperation Delay
35	CyclicOperation DeltaT
36	DHWModuleType
37	DHWTempDynamicRegulation Active
38	Disinfection Active
39	Disinfection Temp
40	Disinfection Duration
41	Disinfection Day
42	Disinfection StartHour
43	Disinfection OK
44	Disinfection StopBeforeTime
45	Display Brightness
46	Display DimBrightness
47	Display Contrast
48	Display ColorInversion
49	Display ScreenLockActive
50	Display ScreenLockDelay
51	Ethernet Active
52	Ethernet DHCP
53	FlowAverage Active
54	FlowAverage SamplesCount
55	FlowAverage LowestValues
56	FlowAverage HighestValues
57	Gateway Active
58	GeneralSettings DateTimeSync
59	GeneralSettings AutoDaylightSaving
60	GeneralSettings FactorySettings
61	Heating Active
62	Heating Sensor
63	Heating Relay
64	HotWater DHWSetpoint
65	HotWater DHWSetpointMin
66	HotWater DHWSetpointMax
67	HygienicFlush Active
68	HygienicFlush StartHour
69	HygienicFlush Duration
70	InputOutput Sensor1
71	InputOutput Sensor2
72	InputOutput Sensor3
73	InputOutput Sensor4
74	InputOutput FlowSensor
75	InputOutput FlowSensor 2
76	ModbusSettings Address
77	ModbusSettings BaudRate
78	ModbusSettings StopBits
79	ModbusSettings DataBits
80	ModbusSettings Parity
81	ParallelRelay Active
82	ParallelRelay Relay1
83	ParallelRelay Relay2
84	Stratification Active
85	Stratification Relay
86	Stratification Mode
87	Stratification DeltaON
88	Stratification DeltaOFF
89	Stratification TempON
90	Stratification Histeresis
91	Stratification Sensor
92	Stratification BlockProtectionTime
93	USB DataLoggingMode

94	USB DataLoggingInterval
95	CirculationWeekMode SundayWindow1
96	CirculationWeekMode SundayWindow2
97	CirculationWeekMode SundayWindow3
98	CirculationWeekMode SundayWindow4
99	CirculationWeekMode SundayWindow5
100	CirculationWeekMode MondayWindow1
101	CirculationWeekMode MondayWindow2
102	CirculationWeekMode MondayWindow3
103	CirculationWeekMode MondayWindow4
104	CirculationWeekMode MondayWindow5
105	CirculationWeekMode TuesdayWindow1
106	CirculationWeekMode TuesdayWindow2
107	CirculationWeekMode TuesdayWindow3
108	CirculationWeekMode TuesdayWindow4
109	CirculationWeekMode TuesdayWindow5
110	CirculationWeekMode WednesdayWindow1
111	CirculationWeekMode WednesdayWindow2
112	CirculationWeekMode WednesdayWindow3
113	CirculationWeekMode WednesdayWindow4
114	CirculationWeekMode WednesdayWindow5
115	CirculationWeekMode ThursdayWindow1
116	CirculationWeekMode ThursdayWindow2
117	CirculationWeekMode ThursdayWindow3
118	CirculationWeekMode ThursdayWindow4
119	CirculationWeekMode ThursdayWindow5
120	CirculationWeekMode FridayWindow1
121	CirculationWeekMode FridayWindow2
122	CirculationWeekMode FridayWindow3
123	CirculationWeekMode FridayWindow4
124	CirculationWeekMode FridayWindow5
125	CirculationWeekMode SaturdayWindow1
126	CirculationWeekMode SaturdayWindow2
127	CirculationWeekMode SaturdayWindow3
128	CirculationWeekMode SaturdayWindow4
129	CirculationWeekMode SaturdayWindow5
130	ComfortWeekMode SundayWindow1
131	ComfortWeekMode SundayWindow2
132	ComfortWeekMode SundayWindow3
133	ComfortWeekMode SundayWindow4
134	ComfortWeekMode SundayWindow5
135	ComfortWeekMode MondayWindow1
136	ComfortWeekMode MondayWindow2
137	ComfortWeekMode MondayWindow3
138	ComfortWeekMode MondayWindow4
139	ComfortWeekMode MondayWindow5
140	ComfortWeekMode TuesdayWindow1
141	ComfortWeekMode TuesdayWindow2
142	ComfortWeekMode TuesdayWindow3
143	ComfortWeekMode TuesdayWindow4
144	ComfortWeekMode TuesdayWindow5
145	ComfortWeekMode WednesdayWindow1
146	ComfortWeekMode WednesdayWindow2
147	ComfortWeekMode WednesdayWindow3
148	ComfortWeekMode WednesdayWindow4
149	ComfortWeekMode WednesdayWindow5
150	ComfortWeekMode ThursdayWindow1
151	ComfortWeekMode ThursdayWindow2
152	ComfortWeekMode ThursdayWindow3
153	ComfortWeekMode ThursdayWindow4
154	ComfortWeekMode ThursdayWindow5
155	ComfortWeekMode FridayWindow1
156	ComfortWeekMode FridayWindow2
157	ComfortWeekMode FridayWindow3
158	ComfortWeekMode FridayWindow4
159	ComfortWeekMode FridayWindow5
160	ComfortWeekMode SaturdayWindow1
161	ComfortWeekMode SaturdayWindow2
162	ComfortWeekMode SaturdayWindow3
163	ComfortWeekMode SaturdayWindow4
164	ComfortWeekMode SaturdayWindow5
165	AdvancedSettings MinSpeed
166	AdvancedSettings DebugLoggingActive

Parameter type ID	
ID	Note
0	DEGREE
1	SECONDS
2	MINUTES
3	BOOL
4	FLOW L M
5	PERCENT
6	FACTORY SETTINGS
7	DAY
8	MULTIPLE DAYS
9	K
10	HOUR
11	TIME WINDOW
12	ENUM
13	NONE



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1 Entsorgung

Hinweis



Elektro- und Elektronikgeräte dürfen nicht mit dem Hausmüll entsorgt werden. Zur Rückgabe stehen in Ihrer Nähe kostenfreie Sammelstellen für Elektroaltgeräte sowie ggf. weitere Annahmestellen für die Wiederverwendung der Geräte zur Verfügung. Die Adressen erhalten Sie von Ihrer Stadt- bzw. Kommunalverwaltung. Sofern das alte Elektro- bzw. Elektronikgerät personenbezogene Daten enthält, sind Sie selbst für deren Löschung verantwortlich, bevor Sie es zurückgeben. Batterien und Akkus müssen vor der Entsorgung des Produkts ausgebaut werden. Je nach Produktausstattung (mit zum Teil optionalem Zubehör) können einzelne Komponenten auch Batterien und Akkus enthalten. Bitte beachten Sie hierzu die auf den Komponenten angebrachten Entsorgungssymbole.

2 Haftungsausschluss

Sowohl das Einhalten dieser Anleitung als auch die Bedingungen und Methoden bei Installation, Betrieb, Verwendung und Instandhaltung des Reglers, können vom Hersteller nicht überwacht werden. Eine unsachgemäße Ausführung der Installation kann zu Sachschäden führen und in Folge Personen gefährden.

Daher übernimmt der Hersteller keinerlei Verantwortung und Haftung für Verluste, Schäden oder Kosten, die sich aus fehlerhafter Installation, fehlerhafter Ausführung der Installationsarbeit, unsachgemäßem Betrieb sowie falscher Verwendung und Instandhaltung ergeben oder in irgendeiner Weise damit zusammenhängen.

Ebenso übernehmen wir keine Verantwortung für patentrechtliche Verletzungen oder Verletzung anderer Rechte Dritter, die aus der Verwendung des Reglers resultieren.

Der Hersteller behält sich das Recht vor, ohne vorherige Mitteilung Änderungen bezüglich des Produkts, der technischen Daten oder der Montage- und Bedienungsanleitung vorzunehmen.

3 Gewährleistung

Auf dieses Produkt hat der Kunde entsprechend den gesetzlichen Regelungen 2 Jahre Gewährleistung. Der Verkäufer wird sämtliche Fabrikations- und Materialfehler, die sich am Produkt während der Gewährleistungszeit zeigen und die Funktionsfähigkeit des Produktes beeinträchtigen, beseitigen. Natürliche Abnutzung stellt keinen Fehler dar.

Eine Gewährleistung erfolgt nicht, wenn der Fehler von Dritten oder durch nicht fachgerechte Montage oder Inbetriebnahme, fehlerhafte oder nachlässige Behandlung, unsachgemäßen Transport, übermäßige Beanspruchung, ungeeignete Betriebsmittel, mangelhafte Bauarbeiten, ungeeigneten Baugrund, nicht bestimmungsgemäße Verwendung oder nicht sachgerechte Bedienung oder Gebrauch verursacht wurde. Eine Gewährleistung erfolgt nur, wenn der Fehler unverzüglich nach der Entdeckung gerügt wird. Die Reklamation ist an den Verkäufer zu richten.

Vor der Abwicklung eines Gewährleistungsanspruches ist der Verkäufer zu informieren.

Zur Abwicklung ist dem Gerät eine genaue Fehlerbeschreibung mit Rechnung/Lieferschein beizufügen.

Die Gewährleistung erfolgt nach Wahl des Verkäufers durch Nachbesserung oder Ersatzlieferung. Sind Nachbesserung oder Ersatzlieferung nicht möglich oder erfolgen sie nicht innerhalb angemessener Zeit trotz schriftlicher Nachfristsetzung durch den Kunden, so wird die durch die Fehler bedingte Wertminderung ersetzt oder, sofern das in Anbetracht der Interessen des Endkunden nicht ausreichend ist, der Vertrag gewandelt.

Weitergehende Ansprüche gegen den Verkäufer aufgrund dieser Gewährleistungsverpflichtung, insbesondere Schadensersatzansprüche wegen entgangenen Gewinns, Nutzungsentschädigung sowie mittelbarer Schäden, sind ausgeschlossen, soweit gesetzlich nicht zwingend gehaftet wird.

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Art.Nr. 9913331xxx-dtb-de - Version V04 – Stand 2022/07

Original -Datei

Technische Änderungen vorbehalten!

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