



PAW GmbH & Co. KG
Böcklerstraße 11, 31789 Hameln, Germany
Phone: +49-5151-9856-0, Fax: +49-5151-9856-98
E-mail: info@paw.eu, Web: www.paw.eu



Modbus register list controller HBC13.14 for HomeBloC® Digital

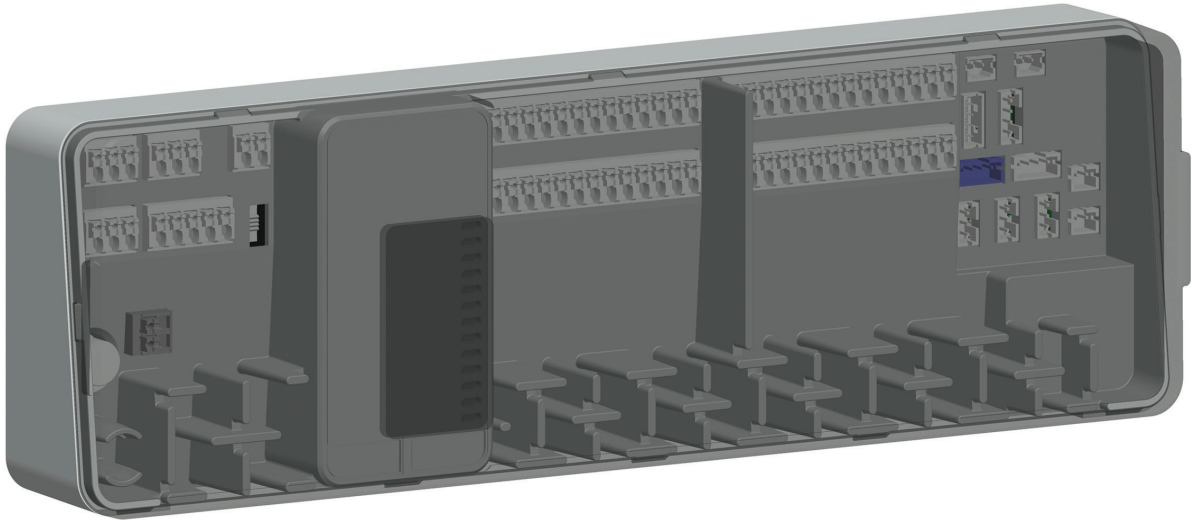


Table of Contents

1	Product information.....	3
2	SCADA.....	3
2.1	Information SCADA.....	3
2.2	Modbus register list SCADA.....	4
3	Parameter C1.1 - C20.20.....	10
3.1	Information parameter C1.1 - C20.20.....	10
3.2	Modbus register list parameters C1.1 - C20.20.....	11
4	Room control unit settings.....	35
4.1	Informatin room control unit settings.....	35
4.2	Modbus register list room control unit settings.....	35
5	Room control unit parameters.....	37
5.1	Information room control unit parameters.....	37
5.2	Modbus register list room control unit parameters.....	40
6	Time programmes.....	42
6.1	Information time programmes.....	42
6.2	Modbus register list time programmes.....	43
7	Notes.....	46

1 Product information

This documentation supplements the detailed installation and operating instructions and is intended for overview purposes only. Please note that the detailed main instructions can be found online at **www.paw.eu** and must be observed. The instructions and warnings described in the main instructions must be observed!

The installation, commissioning and connection of the electrical components of the product covered by this documentation require specialist knowledge corresponding to a recognised professional qualification as a plant mechanic for sanitary, heating and air conditioning technology or a profession with a comparable level of knowledge [specialist].

Work on the product may only be carried out by qualified personnel; changes to the product settings must be made in consultation with a qualified person.

2 SCADA

2.1 Information SCADA

Notes	Address
Depending on equipment	40051

Examples:

Task	Start address	Values
Set zone 3 to automatic	40034	512
Switch on output O4	40034	1282
Set measured outside temperature to 18.5 °C	40030	185
Set simulated temperature S3 to 31 °C	40041	310
Switch input S3 back to automatic	40037	2
Set time to 13.06.2025 10:22:33	0	[5665, 3338, 6406]

2.2 Modbus register list SCADA

Adr.	Description	Addition	Addition 2	Addition 3	User level (write)	From firmware
40001	Date / time	MSB: minutes LSB: seconds	Write to registers together		Customer	1.0r2 bS:0 bP:0
40002	Date / time	MSB: day LSB: hour			Customer	
40003	Date / time	MSB: year LSB: month			Customer	
40004	Controller type				-	
40005	-	-			-	
40006	Hydraulic scheme				-	
40007	Internal ID	Fixed at 15			-	
40008		d°C [60 -> 6°C]			-	
40009	Firmware version				-	
40010	Firmware build	MSB: bS LSB: bP			-	
40011	Time interval of the zones	Zone 1: Bit 0 Zone 2: Bit 1 Zone 3: Bit 2 Zone 4: Bit 3 Zone 5: Bit 4	0: Night mode 1: day mode		-	
40012	-	-			-	
40013	-	-			-	
40014	-	-			-	
40015	-	-			-	
40016	-	-			-	
40017	-	-			-	
40018	Connection status RCU (cable-connected)	MSB: registered RCU LSB: connected RCU			-	

2 SCADA

Adr.	Description	Addition	Addition 2	Addition 3	User level (write)	From firmware
40019	Connection status RCU [BLE]	MSB: registered RCU LSB: connected RCU			-	1.0r2 bS:0 bP:0
40020	Circulation pump & heat exchanger	MSB: circulation pump LSB: heat exchanger			-	
40021	Flag: Parameter change to controller	To delete, at least 1 register from the range 41001 to 41400 must be called up.	Resetting is only available with a BUS 2 connection and not with a USB connection.		-	
40022	RBE 1: P2.1				-	
40023	-	-			-	
40024	-	-			-	
40025	-	-			-	
40026	-	-			-	
40027	Friwa nominal temperature	d°C [60 -> 6°C]	Read only		-	
40028	-	-			-	
40029	Outside temperature taken into account	d°C [60 -> 6°C]			-	
40030	SCADA outdoor temperature	d°C [60 -> 6°C]	Outside temperature from SCADA [read/write]		Customer	
40031	-	-			-	
40032	-	-			-	

Adr.	Description	Addition	Addition 2	Addition 3	User level (write)	From firmware
40033	-	-			-	1.0r2 bS:0 bP:0
40034	Output – operation mode	Bit 0: zone 1 Bit 1: zone 2 Bit 2: zone 3 Bit 3: zone 4 Bit 4: zone 5 Bit 5: O4 Bit 6: O3 Bit 7: O2 Bit 8: O1 Bit 9: P1 Bit 10: P2 Bit 11: P3 Bit 12: P4	Write: MSB: output LSB: mode Mode: 0: Automatic 1: OFF 2: ON	Register is only used to change the operation mode and not to read out the current status of an output.	Installer	
40035	Output - mode	Bit 0: zone 1 Bit 1: zone 2 Bit 2: zone 3 Bit 3: zone 4 Bit 4: zone 5 Bit 5: O4 Bit 6: O3 Bit 7: O2 Bit 8: O1 Bit 9: P1 Bit 10: P2 Bit 11: P3 Bit 12: P4	0: Automatic 1: Manual operation	Current operation mode of the outputs	-	
40036	Output - status	Bit 0: zone 1 Bit 1: zone 2 Bit 2: zone 3 Bit 3: zone 4 Bit 4: zone 5 Bit 5: O4 Bit 6: O3 Bit 7: O2 Bit 8: O1 Bit 9: P1 Bit 10: P2 Bit 11: P3 Bit 12: P4	0: OFF 1: ON	Current status of the outputs	-	

2 SCADA

Adr.	Description	Addition	Addition 2	Addition 3	User level (write)	From firmware
40037	Simulation	Bit 0: S1 Bit 1: S2 Bit 2: S3 Bit 3: S4 Bit 4: S5 Bit 5: - Bit 6: - Bit 7: DP1 [dp] Bit 8: - Bit 9: DP2 [dp] Bit 10: - Bit 11: Flow rate Bit 12: Bit 13: PWM1 Bit 14: PWM2 Bit 15: PWM3	0: Simulation OFF 1: Simulation ON	Read: Returns the current status of each simulation. Write: Write bit number, sets the simulation to automatic	Customer	1.0r2 bS:0 bP:0
40038	-	-			-	
40039	S1	d°C [60 -> 6°C]	Read: Returns the current value	Write value to this register for simulation. The corresponding bit in address 40037 is set automatically.	Installer	
40040	S2	d°C [60 -> 6°C]			Installer	
40041	S3	d°C [60 -> 6°C]			Installer	
40042	S4	d°C [60 -> 6°C]			Installer	
40043	S5	d°C [60 -> 6°C]			Installer	
40044	S6	d°C [60 -> 6°C]			Installer	
40045	S7	d°C [60 -> 6°C]			Installer	
40046	DP1 - dp	mbar			Installer	
40047	DP1 - T	d°C [60 -> 6°C]			Installer	
40048	DP2 - dp	mbar			Installer	
40049	DP2 - T	d°C [60 -> 6°C]			Installer	
40050	FS - flow rate	l/min			Installer	
40051	FS - temperature	d°C [60 -> 6°C]			Installer	

Adr.	Description	Addition	Addition 2	Addition 3	User level (write)	From firmware
40052	PWM1 - Out	d% [252 -> 25,2%]	Read: Returns the current value	Write value to this register for simulation. The corresponding bit in address 40037 is set automatically.	Installer	1.0r2 bS:0 bP:0
40053	PWM2 - Out	d% [252 -> 25,2%]			Installer	
40054	PWM3 - Out	d% [252 -> 25,2%]			Installer	
40055	-				Installer	
40056	-				Installer	
40057	-				Installer	
40058	Friwa Status 1	Bit 0: Pulse pause active Bit 1: T flow too low Bit 2: Control target reached Bit 3: Delay switch valve Bit 4: Over-temperature Bit 5: Compensation permitted Bit 6: Line heating running Bit 7: Compensation running Bit 8: Blocking protection running			-	

2 SCADA

Adr.	Description	Addition	Addition 2	Addition 3	User level (write)	From firmware
40059	Sensors status 1	S1: Bit 0 - 2 S2: Bit 3 - 5 S4: Bit 6 - 8 Flow rate: Bit 9 - 11 DP1: Bit 12 - 14	000: Measured value 001: Interruption 010: Short circuit 101: Simulation		-	1.0r2 bS:0 bP:0
40060	Sensors status 2	S3: Bit 0 - 2	000: Measured value 001: Interruption 010: Short circuit 101: Simulation		-	
40061	General status register 1	Bit 0 - 3: User level	User level as decimal value		-	
40062	-	-			-	
40063	-	-			-	
40064	-	-			-	
40065	Simulation RCU 1 room temperature	d°C [60 -> 6°C]	Range: -25 °C up to 90 °C	Activate: Write value to be simulated Deactivate: write value 0	Customer	
40066	Simulation RCU 2 room temperature	d°C [60 -> 6°C]			Customer	
40067	Simulation RCU 3 room temperature	d°C [60 -> 6°C]			Customer	
40068	Simulation RCU 4 room temperature	d°C [60 -> 6°C]			Customer	
40069	Simulation RCU 5 room temperature	d°C [60 -> 6°C]			Customer	

3 Parameter C1.1 - C20.20

3.1 Information parameter C1.1 - C20.20

General:

Unlisted addresses must not be written to.

Register format:

The format register is structured as follows

Meaning	User level				Visible	Format										
Bit	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0

User level:

Decimal value corresponds to the user level, example:

0000 User level 0: customer

0101 User level 5: installer

Visible:

Control for external programme, whether the parameter should be displayed or not.

0: Parameter is not displayed.

1: Parameter is displayed.

Format:

Value [Bin]	Value [Dec]	Decimal place	Step size	Example
010 0001	33	1	0.1	1.0
000 0001	1	0	1	1
010 1010	42	1	1.0	35.0
100 0101	69	2	0.05	0.75
010 0101	37	1	0.5	1.5
000 0101	5	0	5	5

3 Parameter C1.1 - C20.20

3.2 Modbus register list parameters C1.1 - C20.20

Adr.	Param.	Description	Address				User level (write)	From firmware
			Format	Value min.	Value max.	Default		
41001	C1.1	RCU for direct connection in WRF scheme	41401	41801	42201	42601	Installer	1.0r2 bS:0 bP:0
41002	C1.2	Type of thermal drives	41402	41802	42202	42602	Installer	
41003	-	-	41403	41803	42203	42603	Advanced installer	1.0r3 bS:0 bP:1
41004	-	-	41404	41804	42204	42604	Advanced installer	
41005	-	-	41405	41805	42205	42605	Advanced installer	
41006	-	-	41406	41806	42206	42606	Advanced installer	
41007	-	-	41407	41807	42207	42607	Advanced installer	
41008	-	-	41408	41808	42208	42608	Advanced installer	
41009	-	-	41409	41809	42209	42609	Advanced installer	
41010	-	-	41410	41810	42210	42610	Advanced installer	
41011	C1.11	Modbus communication type via USB port	41411	41811	42211	42611	PAW	1.0r2 bS:0 bP:0
41012	C1.12	Beep mode	41412	41812	42212	42612	Customer	
41013	C1.13	Automatic summer/winter time changeover	41413	41813	42213	42613	Installer	
41014	-	-	41414	41814	42214	42614	Advanced installer	1.0r3 bS:0 bP:1
41015	C1.15	Calibration S1	41415	41815	42215	42615	Customer	1.0r2 bS:0 bP:0
41016	C1.16	Calibration S2	41416	41816	42216	42616	Customer	
41017	C1.17	Calibration S3	41417	41817	42217	42617	Customer	

Adr.	Param.	Description	Address				User level (write)	From firmware
			Format	Value min.	Value max.	Default		
41018	C1.18	Calibration S4	41418	41818	42218	42618	Customer	1.0r2 bS:0 bP:0
41019	C1.19	Calibration S5	41419	41819	42219	42619	Customer	
41020	C1.20	Calibration S6	41420	41820	42220	42620	Customer	
41021	C2.1	Control algorithm	41421	41821	42221	42621	Installer	
41022	C2.2	I constant	41422	41822	42222	42622	Installer	
41023	C2.3	P zone	41423	41823	42223	42623	Installer	
41024	C2.4	P-zone shift in heating mode	41424	41824	42224	42624	Installer	
41025	C2.5	P-zone shift in cooling mode	41425	41825	42225	42625	Installer	
41026	C2.6	Minimum operating time zone valve	41426	41826	42226	42626	Installer	1.0r3 bS:0 bP:1
41027	C2.7	Validity of outside temperature from SCADA	41427	41827	42227	42627	Installer	
41028	C2.8	Validity of room temperature RCU from SCADA	41428	41828	42228	42628	Installer	
41029	-	-	41429	41829	42229	42629	Advanced installer	
41030	-	-	41430	41830	42230	42630	Advanced installer	
41031	-	-	41431	41831	42231	42631	Advanced installer	
41032	-	-	41432	41832	42232	42632	Advanced installer	
41033	-	-	41433	41833	42233	42633	Advanced installer	
41034	-	-	41434	41834	42234	42634	Advanced installer	
41035	-	-	41435	41835	42235	42635	Advanced installer	

3 Parameter C1.1 - C20.20

Adr.	Param.	Description	Address				User level (write)	From firmware
			Format	Value min.	Value max.	Default		
41036	-	-	41436	41836	42236	42636	Advanced installer	1.0r3 bS:0 bP:1
41037	-	-	41437	41837	42237	42637	Advanced installer	
41038	-	-	41438	41838	42238	42638	Advanced installer	
41039	-	-	41439	41839	42239	42639	Advanced installer	
41040	-	-	41440	41840	42240	42640	Advanced installer	
41041	C3.1	Switch-off delay P1	41441	41841	42241	42641	Installer	1.0r2 bS:0 bP:0
41042	C3.2	Switch-off delay P2	41442	41842	42242	42642	Installer	
41043	C3.3	Switch-off delay P3	41443	41843	42243	42643	Installer	
41044	C3.4	Switch-off delay relay	41444	41844	42244	42644	Installer	
41045	-	-	41445	41845	42245	42645	Advanced installer	1.0r3 bS:0 bP:1
41046	-	-	41446	41846	42246	42646	Advanced installer	
41047	-	-	41447	41847	42247	42647	Advanced installer	
41048	-	-	41448	41848	42248	42648	Advanced installer	
41049	-	-	41449	41849	42249	42649	Advanced installer	
41050	-	-	41450	41850	42250	42650	Advanced installer	
41051	-	-	41451	41851	42251	42651	Advanced installer	
41052	-	-	41452	41852	42252	42652	Advanced installer	
41053	-	-	41453	41853	42253	42653	Advanced installer	

Adr.	Param.	Description	Address				User level (write)	From firmware
			Format	Value min.	Value max.	Default		
41054	-	-	41454	41854	42254	42654	Advanced installer	1.0r3 bS:0 bP:1
41055	-	-	41455	41855	42255	42655	Advanced installer	
41056	-	-	41456	41856	42256	42656	Advanced installer	
41057	-	-	41457	41857	42257	42657	Advanced installer	
41058	-	-	41458	41858	42258	42658	Advanced installer	
41059	-	-	41459	41859	42259	42659	Advanced installer	
41060	-	-	41460	41860	42260	42660	Advanced installer	
41061	C4.1	Heating curve slope	41461	41861	42261	42661	Installer	1.0r2 bS:0 bP:0
41062	C4.2	Parallel shift of the heating curve	41462	41862	42262	42662	Installer	
41063	C4.3	Effect of room temperature deviation	41463	41863	42263	42663	Installer	
41064	C4.4	Mode of operation flow temperature	41464	41864	42264	42664	Installer	
41065	C4.5	Constant flow temperature	41465	41865	42265	42665	Installer	
41066	C4.6	Heating curve slope for WR scheme	41466	41866	42266	42666	Installer	
41067	C4.7	Parallel shift of the heating curve for scheme WR	41467	41867	42267	42667	Installer	
41068	-	-	41468	41868	42268	42668	Advanced installer	1.0r3 bS:0 bP:1
41069	-	-	41469	41869	42269	42669	Advanced installer	

3 Parameter C1.1 - C20.20

Adr.	Param.	Description	Address				User level (write)	From firmware
			Format	Value min.	Value max.	Default		
41070	C4.10	Maximum calculated flow temperature (heating)	41470	41870	42270	42670	Installer	1.0r2 bS:0 bP:0
41071	C4.11	Minimum calculated flow temperature (heating)	41471	41871	42271	42671	Installer	
41072	-	-	41472	41872	42272	42672	Advanced installer	1.0r3 bS:0 bP:1
41073	-	-	41473	41873	42273	42673	Advanced installer	
41074	-	-	41474	41874	42274	42674	Advanced installer	
41075	-	-	41475	41875	42275	42675	Advanced installer	
41076	-	-	41476	41876	42276	42676	Advanced installer	
41077	-	-	41477	41877	42277	42677	Advanced installer	
41078	-	-	41478	41878	42278	42678	Advanced installer	
41079	-	-	41479	41879	42279	42679	Advanced installer	
41080	-	-	41480	41880	42280	42680	Advanced installer	
41081	C5.1	T flow min - radiator circuit	41481	41881	42281	42681	Installer	1.0r2 bS:0 bP:0
41082	C5.2	T flow max - radiator circuit	41482	41882	42282	42682	Installer	
41083	C5.3	T flow min - radiant floor circuit	41483	41883	42283	42683	Installer	
41084	C5.4	T flow max - radiant floor circuit	41484	41884	42284	42684	Installer	

Adr.	Param.	Description	Address				User level (write)	From firmware
			Format	Value min.	Value max.	Default		
41085	-	-	41485	41885	42285	42685	Advanced installer	1.0r3 bS:0 bP:1
41086	-	-	41486	41886	42286	42686	Advanced installer	
41087	-	-	41487	41887	42287	42687	Advanced installer	
41088	-	-	41488	41888	42288	42688	Advanced installer	
41089	C5.9	T flow min - test delay	41489	41889	42289	42689	Installer	1.0r2 bS:0 bP:0
41090	C5.10	T flow min - test interval	41490	41890	42290	42690	Installer	
41091	C5.11	T flow max - test delay	41491	41891	42291	42691	Installer	
41092	C5.12	T flow max - test interval	41492	41892	42292	42692	Installer	
41093	C5.13	dp if T flow max exceeded	41493	41893	42293	42693	Installer	
41094	-	-	41494	41894	42294	42694	Advanced installer	1.0r3 bS:0 bP:1
41095	-	-	41495	41895	42295	42695	Advanced installer	
41096	-	-	41496	41896	42296	42696	Advanced installer	
41097	-	-	41497	41897	42297	42697	Advanced installer	
41098	-	-	41498	41898	42298	42698	Advanced installer	
41099	-	-	41499	41899	42299	42699	Advanced installer	
41100	-	-	41500	41900	42300	42700	Advanced installer	
41101	C6.1	P – constant of PWM control 1	41501	41901	42301	42701	Installer	1.0r2 bS:0 bP:0
41102	C6.2	I – constant of PWM control 1	41502	41902	42302	42702	Installer	
41103	C6.3	D – constant of PWM control 1	41503	41903	42303	42703	Installer	

3 Parameter C1.1 - C20.20

Adr.	Param.	Description	Address				User level (write)	From firmware
			Format	Value min.	Value max.	Default		
41104	C6.4	P – constant of PWM control 2	41504	41904	42304	42704	Installer	1.0r2 bS:0 bP:0
41105	C6.5	I – constant of PWM control 2	41505	41905	42305	42705	Installer	
41106	C6.6	D – constant of PWM control 2	41506	41906	42306	42706	Installer	
41107	-	-	41507	41907	42307	42707	Advanced installer	1.0r3 bS:0 bP:1
41108	-	-	41508	41908	42308	42708	Advanced installer	
41109	-	-	41509	41909	42309	42709	Advanced installer	
41110	-	-	41510	41910	42310	42710	Advanced installer	
41111	-	-	41511	41911	42311	42711	Advanced installer	
41112	-	-	41512	41912	42312	42712	Advanced installer	
41113	-	-	41513	41913	42313	42713	Advanced installer	
41114	-	-	41514	41914	42314	42714	Advanced installer	
41115	-	-	41515	41915	42315	42715	Advanced installer	
41116	-	-	41516	41916	42316	42716	Advanced installer	
41117	-	-	41517	41917	42317	42717	Advanced installer	
41118	-	-	41518	41918	42318	42718	Advanced installer	
41119	-	-	41519	41919	42319	42719	Advanced installer	
41120	-	-	41520	41920	42320	42720	Advanced installer	

Adr.	Param.	Description	Address				User level (write)	From firmware
			Format	Value min.	Value max.	Default		
41121	C7.1	Delayed switchover to emergency operation	41521	41921	42321	42721	Installer	1.0r2 bS:0 bP:0
41122	C7.2	Emergency operation period	41522	41922	42322	42722	Installer	
41123	C7.3	Emergency operation zone 1 (period %)	41523	41923	42323	42723	Installer	
41124	C7.4	Emergency operation zone 2 (period %)	41524	41924	42324	42724	Installer	
41125	C7.5	Emergency operation zone 3 (period %)	41525	41925	42325	42725	Installer	
41126	C7.6	Emergency operation zone 4 (period %)	41526	41926	42326	42726	Installer	
41127	C7.7	Emergency operation zone 5 (period %)	41527	41927	42327	42727	Installer	
41128	-	-	41528	41928	42328	42728	Advanced installer	1.0r3 bS:0 bP:1
41129	-	-	41529	41929	42329	42729	Advanced installer	
41130	-	-	41530	41930	42330	42730	Advanced installer	
41131	-	-	41531	41931	42331	42731	Advanced installer	
41132	C7.12	Bus 2 - settings	41532	41932	42332	42732	Installer	1.0r2 bS:0 bP:0
41133	C7.13	Bus 2 - Modbus ID	41533	41933	42333	42733	Installer	
41134	C7.14	Com-Port - Modbus ID	41534	41934	42334	42734	Installer	
41135	-	-	41535	41935	42335	42735	Advanced installer	1.0r3 bS:0 bP:1
41136	-	-	41536	41936	42336	42736	Advanced installer	

3 Parameter C1.1 - C20.20

Adr.	Param.	Description	Address				User level (write)	From firmware
			Format	Value min.	Value max.	Default		
41137	-	-	41537	41937	42337	42737	Advanced installer	1.0r3 bS:0 bP:1
41138	-	-	41538	41938	42338	42738	Advanced installer	
41139	-	-	41539	41939	42339	42739	Advanced installer	
41140	-	-	41540	41940	42340	42740	Advanced installer	
41141	C8.1	Influence of which RCU on zone 1	41541	41941	42341	42741	Installer	1.0r2 bS:0 bP:0
41142	C8.2	Influence of which RCU on zone 2	41542	41942	42342	42742	Installer	
41143	C8.3	Influence of which RCU on zone 3	41543	41943	42343	42743	Installer	
41144	C8.4	Influence of which RCU on zone 4	41544	41944	42344	42744	Installer	
41145	C8.5	Influence of which RCU on zone 5	41545	41945	42345	42745	Installer	
41146	-	-	41546	41946	42346	42746	Advanced installer	1.0r3 bS:0 bP:1
41147	C8.7	RCU to connection 1	41547	41947	42347	42747	Installer	1.0r2 bS:0 bP:0
41148	C8.8	RCU to connection 2	41548	41948	42348	42748	Installer	
41149	C8.9	RCU to connection 3	41549	41949	42349	42749	Installer	
41150	C8.10	RCU to connection 4	41550	41950	42350	42750	Installer	
41151	C8.11	RCU to connection 5	41551	41951	42351	42751	Installer	
41152	-	-	41552	41952	42352	42752	Advanced installer	1.0r3 bS:0 bP:1

Adr.	Param.	Description	Address				User level (write)	From firmware
			Format	Value min.	Value max.	Default		
41153	C8.13	All connected RCU (cable-connected)	41553	41953	42353	42753	Installer	1.0r2 bS:0 bP:0
41154	C8.14	All connected RCU (BLE)	41554	41954	42354	42754	Installer	
41155	-	-	41555	41955	42355	42755	Advanced installer	1.0r3 bS:0 bP:1
41156	-	-	41556	41956	42356	42756	Advanced installer	
41157	-	-	41557	41957	42357	42757	Advanced installer	
41158	-	-	41558	41958	42358	42758	Advanced installer	
41159	C8.19	Bus 1 - address	41559	41959	42359	42759	Installer	1.0r2 bS:0 bP:0
41160	C8.20	Bus 1 - number of slave devices	41560	41960	42360	42760	Installer	
41161	C9.1	Hydraulic variant	41561	41961	42361	42761	Installer	
41162	C9.2	Heat exchanger	41562	41962	42362	42762	Installer	
41163	C9.3	Heat retention	41563	41963	42363	42763	Installer	
41164	C9.4	Switch valve	41564	41964	42364	42764	Installer	
41165	C9.5	Control valve injection-type circuit	41565	41965	42365	42765	Installer	
41166	C9.6	Primary pump	41566	41966	42366	42766	Installer	
41167	C9.7	Heating pump	41567	41967	42367	42767	Installer	
41168	C9.8	Circulation pump	41568	41968	42368	42768	Installer	
41169	C9.9	Heat flowmeter	41569	41969	42369	42769	Installer	
41170	C9.10	Instantaneous water heater	41570	41970	42370	42770	Installer	
41171	-	-	41571	41971	42371	42771	Advanced installer	1.0r3 bS:0 bP:1
41172	-	-	41572	41972	42372	42772	Advanced installer	

3 Parameter C1.1 - C20.20

Adr.	Param.	Description	Address				User level (write)	From firmware
			Format	Value min.	Value max.	Default		
41173	C9.13	Flow rate sensor - type	41573	41973	42373	42773	Advanced installer	1.0r2 bS:0 bP:0
41174	C9.14	Impulses per litre	41574	41974	42374	42774	Advanced installer	
41175	C9.15	DP 1 type	41575	41975	42375	42775	Advanced installer	
41176	C9.16	Calibration DP 1 - dp	41576	41976	42376	42776	Customer	
41177	C9.17	Calibration DP 1 - T	41577	41977	42377	42777	Customer	
41178	C9.18	DP 2 type	41578	41978	42378	42778	Advanced installer	
41179	C9.19	Calibration DP 2 - dp	41579	41979	42379	42779	Customer	
41180	C9.20	Calibration DP 2 - T	41580	41980	42380	42780	Customer	
41181	C10.1	Nominal temperature	41581	41981	42381	42781	Customer	
41182	C10.2	Nominal temperature [min]	41582	41982	42382	42782	Installer	
41183	C10.3	Nominal temperature [max]	41583	41983	42383	42783	Installer	
41184	-	-	41584	41984	42384	42784	Advanced installer	1.0r3 bS:0 bP:1
41185	-	-	41585	41985	42385	42785	Advanced installer	
41186	-	-	41586	41986	42386	42786	Advanced installer	
41187	-	-	41587	41987	42387	42787	Advanced installer	
41188	-	-	41588	41988	42388	42788	Advanced installer	
41189	-	-	41589	41989	42389	42789	Advanced installer	
41190	-	-	41590	41990	42390	42790	Advanced installer	

Adr.	Param.	Description	Address				User level (write)	From firmware
			Format	Value min.	Value max.	Default		
41191	-	-	41591	41991	42391	42791	Advanced installer	1.0r3 bS:0 bP:1
41192	-	-	41592	41992	42392	42792	Advanced installer	
41193	-	-	41593	41993	42393	42793	Advanced installer	
41194	-	-	41594	41994	42394	42794	Advanced installer	
41195	-	-	41595	41995	42395	42795	Advanced installer	
41196	-	-	41596	41996	42396	42796	Advanced installer	
41197	-	-	41597	41997	42397	42797	Advanced installer	
41198	-	-	41598	41998	42398	42798	Advanced installer	
41199	-	-	41599	41999	42399	42799	Advanced installer	
41200	-	-	41600	42000	42400	42800	Advanced installer	
41201	C11.1	Friwa Function for IWH	41601	42001	42401	42801	Installer	1.0r2 bS:0 bP:0
41202	C11.2	IWH dT	41602	42002	42402	42802	Installer	
41203	C11.3	IWH Tnom min	41603	42003	42403	42803	Installer	
41204	C11.4	IWH Tnom max	41604	42004	42404	42804	Installer	
41205	-	-	41605	42005	42405	42805	Advanced installer	1.0r3 bS:0 bP:1
41206	C11.6	IWH PWM	41606	42006	42406	42806	Installer	1.0r2 bS:0 bP:0
41207	-	-	41607	42007	42407	42807	Advanced installer	1.0r3 bS:0 bP:1
41208	-	-	41608	42008	42408	42808	Advanced installer	
41209	-	-	41609	42009	42409	42809	Advanced installer	
41210	-	-	41610	42010	42410	42810	Advanced installer	

3 Parameter C1.1 - C20.20

Adr.	Param.	Description	Address				User level (write)	From firmware
			Format	Value min.	Value max.	Default		
41211	-	-	41611	42011	42411	42811	Advanced installer	1.0r3 bS:0 bP:1
41212	-	-	41612	42012	42412	42812	Advanced installer	
41213	-	-	41613	42013	42413	42813	Advanced installer	
41214	-	-	41614	42014	42414	42814	Advanced installer	
41215	C11.15	Friwa overtemperature shut-down available	41615	42015	42415	42815	Installer	1.0r2 bS:0 bP:0
41216	C11.16	Friwa overtemperature shut-down delay	41616	42016	42416	42816	Installer	
41217	C11.17	Friwa overtemperature shut-down ΔT	41617	42017	42417	42817	Installer	
41218	-	-	41618	42018	42418	42818	Advanced installer	1.0r3 bS:0 bP:1
41219	-	-	41619	42019	42419	42819	Advanced installer	
41220	-	-	41620	42020	42420	42820	Advanced installer	
41221	C12.1	dp floor circuit	41621	42021	42421	42821	Installer	1.0r2 bS:0 bP:0
41222	C12.2	dp radiator circuit	41622	42022	42422	42822	Installer	
41223	-	-	41623	42023	42423	42823	Advanced installer	1.0r3 bS:0 bP:1
41224	-	-	41624	42024	42424	42824	Advanced installer	
41225	-	-	41625	42025	42425	42825	Advanced installer	
41226	-	-	41626	42026	42426	42826	Advanced installer	

Adr.	Param.	Description	Address				User level (write)	From firmware
			Format	Value min.	Value max.	Default		
41227	C12.7	Line heating - mode	41627	42027	42427	42827	Installer	1.0r2 bS:0 bP:0
41228	C12.8	Line heating - T target min	41628	42028	42428	42828	Installer	
41229	C12.9	Line heating - T target max	41629	42029	42429	42829	Installer	
41230	C12.10	Line heating - time period consideration T flow max	41630	42030	42430	42830	Installer	
41231	C12.11	Line heating - ΔT on	41631	42031	42431	42831	Installer	
41232	C12.12	Line heating - ΔT off	41632	42032	42432	42832	Installer	
41233	C12.13	Line heating - runtime	41633	42033	42433	42833	Installer	
41234	C12.14	Line heating - test interval successful	41634	42034	42434	42834	Installer	
41235	C12.15	Line heating - test interval not successful	41635	42035	42435	42835	Installer	
41236	C12.16	Line heating - PWM pump	41636	42036	42436	42836	Installer	
41237	C12.17	Line heating - ramp duration	41637	42037	42437	42837	Installer	
41238	C12.18	Line heating - test time ΔT	41638	42038	42438	42838	Installer	
41239	C12.19	Line heating - successful $\Delta T/\Delta t$	41639	42039	42439	42839	Installer	
41240	-	-	41640	42040	42440	42840	Advanced installer	1.0r3 bS:0 bP:1

3 Parameter C1.1 - C20.20

Adr.	Param.	Description	Address				User level (write)	From firmware
			Format	Value min.	Value max.	Default		
41241	C13.1	Activate blocking protection	41641	42041	42441	42841	Installer	1.0r2 bS:0 bP:0
41242	C13.2	Blocking protection - week day	41642	42042	42442	42842	Customer	
41243	C13.3	Blocking protection - hour	41643	42043	42443	42843	Customer	
41244	-	-	41644	42044	42444	42844	Advanced installer	1.0r3 bS:0 bP:1
41245	-	-	41645	42045	42445	42845	Advanced installer	
41246	-	-	41646	42046	42446	42846	Advanced installer	
41247	-	-	41647	42047	42447	42847	Advanced installer	
41248	-	-	41648	42048	42448	42848	Advanced installer	
41249	-	-	41649	42049	42449	42849	Advanced installer	
41250	-	-	41650	42050	42450	42850	Advanced installer	
41251	-	-	41651	42051	42451	42851	Advanced installer	
41252	-	-	41652	42052	42452	42852	Advanced installer	
41253	-	-	41653	42053	42453	42853	Advanced installer	
41254	-	-	41654	42054	42454	42854	Advanced installer	

Adr.	Param.	Description	Address				User level (write)	From firmware
			Format	Value min.	Value max.	Default		
41255	-	-	41655	42055	42455	42855	Advanced installer	1.0r3 bS:0 bP:1
41256	-	-	41656	42056	42456	42856	Advanced installer	
41257	-	-	41657	42057	42457	42857	Advanced installer	
41258	-	-	41658	42058	42458	42858	Advanced installer	
41259	-	-	41659	42059	42459	42859	Advanced installer	
41260	-	-	41660	42060	42460	42860	Advanced installer	
41261	C14.1	Fallback T flow	41661	42061	42461	42861	Installer	1.0r2 bS:0 bP:0
41262	C14.2	Fallback Tcw	41662	42062	42462	42862	Installer	
41263	-	-	41663	42063	42463	42863	Advanced installer	1.0r3 bS:0 bP:1
41264	-	-	41664	42064	42464	42864	Advanced installer	
41265	-	-	41665	42065	42465	42865	Advanced installer	
41266	-	-	41666	42066	42466	42866	Advanced installer	
41267	-	-	41667	42067	42467	42867	Advanced installer	
41268	-	-	41668	42068	42468	42868	Advanced installer	
41269	-	-	41669	42069	42469	42869	Advanced installer	
41270	-	-	41670	42070	42470	42870	Advanced installer	
41271	C14.11	Fallback operation mode RCU 1	41671	42071	42471	42871	Installer	1.0r2 bS:0 bP:0
41272	C14.12	Fallback operation mode RCU 2	41672	42072	42472	42872	Installer	
41273	C14.13	Fallback operation mode RCU 3	41673	42073	42473	42873	Installer	

3 Parameter C1.1 - C20.20

Adr.	Param.	Description	Address				User level (write)	From firmware
			Format	Value min.	Value max.	Default		
41274	C14.14	Fallback operation mode RCU 4	41674	42074	42474	42874	Installer	1.0r2 bS:0 bP:0
41275	C14.15	Fallback operation mode RCU 5	41675	42075	42475	42875	Installer	
41276	C14.16	Fallback room temperature RCU 1	41676	42076	42476	42876	Installer	
41277	C14.17	Fallback room temperature RCU 2	41677	42077	42477	42877	Installer	
41278	C14.18	Fallback room temperature RCU 3	41678	42078	42478	42878	Installer	
41279	C14.19	Fallback room temperature RCU 4	41679	42079	42479	42879	Installer	
41280	C14.20	Fallback room temperature RCU 5	41680	42080	42480	42880	Installer	
41281	C15.1	Mixing - KP	41681	42081	42481	42881	Advanced installer	
41282	C15.2	Mixing - TN	41682	42082	42482	42882	Advanced installer	
41283	C15.3	Mixing - TV	41683	42083	42483	42883	Advanced installer	
41284	C15.4	Mixing - positive gain	41684	42084	42484	42884	Advanced installer	
41285	C15.5	Mixing - negative gain	41685	42085	42485	42885	Advanced installer	
41286	C15.6	Mixing - PWM max	41686	42086	42486	42886	Advanced installer	
41287	C15.7	Mixing - max. duration for PWM max	41687	42087	42487	42887	Advanced installer	
41288	C15.8	Mixing - duration pause after PWM max	41688	42088	42488	42888	Advanced installer	

Adr.	Param.	Description	Address				User level (write)	From firmware
			Format	Value min.	Value max.	Default		
41289	C15.9	Mixing - PWM base value	41689	42089	42489	42889	Advanced installer	1.0r2 bS:0 bP:0
41290	C15.10	Mixing - blocking time after Friwa operation	41690	42090	42490	42890	Advanced installer	
41291	C15.11	Mixing - duration 100% after start	41691	42091	42491	42891	Advanced installer	
41292	C15.12	Mixing - pause after 100% after start	41692	42092	42492	42892	Advanced installer	
41293	C15.13	Mixing - PID reset after overshoot	41693	42093	42493	42893	Advanced installer	
41294	C15.14	Mixing – restart with 100% if no control for x seconds	41694	42094	42494	42894	Advanced installer	
41295	-	-	41695	42095	42495	42895	Advanced installer	1.0r3 bS:0 bP:1
41296	-	-	41696	42096	42496	42896	Advanced installer	
41297	C15.17	Mixing – damping factor	41697	42097	42497	42897	Advanced installer	1.0r2 bS:0 bP:0
41298	C15.18	Mixing – D max before pause	41698	42098	42498	42898	Advanced installer	
41299	C15.19	Mixing – D max before pause hysteresis	41699	42099	42499	42899	Advanced installer	
41300	C15.20	Mixing - PID time base	41700	42100	42500	42900	Advanced installer	
41301	C16.1	Adaptation - active	41701	42101	42501	42901	Advanced installer	

3 Parameter C1.1 - C20.20

Adr.	Param.	Description	Address				User level (write)	From firmware
			Format	Value min.	Value max.	Default		
41302	C16.2	Adaptation – pause between 2 switches	41702	42102	42502	42902	Advanced installer	1.0r2 bS:0 bP:0
41303	C16.3	Adaptation – pause directly after switch	41703	42103	42503	42903	Advanced installer	
41304	C16.4	Adaptation – dp min for switch detection	41704	42104	42504	42904	Advanced installer	
41305	C16.5	Adaptation – duration of switch detection	41705	42105	42505	42905	Advanced installer	
41306	C16.6	Adaptation - delay	41706	42106	42506	42906	Advanced installer	
41307	C16.7	Adaptation switch end after	41707	42107	42507	42907	Advanced installer	
41308	C16.8	Adaptation – passes maximal	41708	42108	42508	42908	Advanced installer	
41309	C16.9	Adaptation – passes max. at Friwa start	41709	42109	42509	42909	Advanced installer	
41310	C16.10	Adaptation - dT max after Friwa start	41710	42110	42510	42910	Advanced installer	
41311	C16.11	Adaptation - limit pos for neg dT	41711	42111	42511	42911	Advanced installer	
41312	C16.12	Adaptation - limit pos for pos dT	41712	42112	42512	42912	Advanced installer	
41313	C16.13	Adaptation - limit neg for neg dT	41713	42113	42513	42913	Advanced installer	
41314	C16.14	Adaptation - limit neg for pos dT	41714	42114	42514	42914	Advanced installer	

Adr.	Param.	Description	Address				User level (write)	From firmware
			Format	Value min.	Value max.	Default		
41315	C16.15	Adaption - max dT for maximal adaption	41715	42115	42515	42915	Advanced installer	1.0r2 bS:0 bP:0
41316	C16.16	Adaptation - PWM min at switch detection	41716	42116	42516	42916	Installer	
41317	-	-	41717	42117	42517	42917	Advanced installer	1.0r3 bS:0 bP:1
41318	-	-	41718	42118	42518	42918	Advanced installer	
41319	-	-	41719	42119	42519	42919	Advanced installer	
41320	C16.20	Pulse pause limit	41720	42120	42520	42920	Advanced installer	1.0r2 bS:0 bP:0
41321	-	-	41721	42121	42521	42921	Advanced installer	1.0r3 bS:0 bP:1
41322	-	-	41722	42122	42522	42922	Advanced installer	
41323	-	-	41723	42123	42523	42923	Advanced installer	
41324	-	-	41724	42124	42524	42924	Advanced installer	
41325	-	-	41725	42125	42525	42925	Advanced installer	
41326	-	-	41726	42126	42526	42926	Advanced installer	
41327	-	-	41727	42127	42527	42927	Advanced installer	
41328	-	-	41728	42128	42528	42928	Advanced installer	
41329	-	-	41729	42129	42529	42929	Advanced installer	
41330	-	-	41730	42130	42530	42930	Advanced installer	
41331	-	-	41731	42131	42531	42931	Advanced installer	

3 Parameter C1.1 - C20.20

Adr.	Param.	Description	Address				User level (write)	From firmware
			Format	Value min.	Value max.	Default		
41332	-	-	41732	42132	42532	42932	Advanced installer	1.0r3 bS:0 bP:1
41333	-	-	41733	42133	42533	42933	Advanced installer	
41334	-	-	41734	42134	42534	42934	Advanced installer	
41335	-	-	41735	42135	42535	42935	Advanced installer	
41336	-	-	41736	42136	42536	42936	Advanced installer	
41337	-	-	41737	42137	42537	42937	Advanced installer	
41338	-	-	41738	42138	42538	42938	Advanced installer	
41339	-	-	41739	42139	42539	42939	Advanced installer	
41340	-	-	41740	42140	42540	42940	Advanced installer	
41341	-	-	41741	42141	42541	42941	Advanced installer	
41342	-	-	41742	42142	42542	42942	Advanced installer	
41343	-	-	41743	42143	42543	42943	Advanced installer	
41344	-	-	41744	42144	42544	42944	Advanced installer	
41345	-	-	41745	42145	42545	42945	Advanced installer	
41346	-	-	41746	42146	42546	42946	Advanced installer	
41347	-	-	41747	42147	42547	42947	Advanced installer	
41348	-	-	41748	42148	42548	42948	Advanced installer	
41349	-	-	41749	42149	42549	42949	Advanced installer	
41350	-	-	41750	42150	42550	42950	Advanced installer	

Adr.	Param.	Description	Address				User level (write)	From firmware
			Format	Value min.	Value max.	Default		
41351	-	-	41751	42151	42551	42951	Advanced installer	1.0r3 bS:0 bP:1
41352	-	-	41752	42152	42552	42952	Advanced installer	
41353	-	-	41753	42153	42553	42953	Advanced installer	
41354	-	-	41754	42154	42554	42954	Advanced installer	
41355	-	-	41755	42155	42555	42955	Advanced installer	
41356	-	-	41756	42156	42556	42956	Advanced installer	
41357	-	-	41757	42157	42557	42957	Advanced installer	
41358	-	-	41758	42158	42558	42958	Advanced installer	
41359	-	-	41759	42159	42559	42959	Advanced installer	
41360	-	-	41760	42160	42560	42960	Advanced installer	
41361	-	-	41761	42161	42561	42961	Advanced installer	
41362	-	-	41762	42162	42562	42962	Advanced installer	
41363	-	-	41763	42163	42563	42963	Advanced installer	
41364	-	-	41764	42164	42564	42964	Advanced installer	
41365	-	-	41765	42165	42565	42965	Advanced installer	
41366	-	-	41766	42166	42566	42966	Advanced installer	
41367	-	-	41767	42167	42567	42967	Advanced installer	
41368	-	-	41768	42168	42568	42968	Advanced installer	
41369	-	-	41769	42169	42569	42969	Advanced installer	

3 Parameter C1.1 - C20.20

Adr.	Param.	Description	Address				User level (write)	From firmware
			Format	Value min.	Value max.	Default		
41370	-	-	41770	42170	42570	42970	Advanced installer	1.0r3 bS:0 bP:1
41371	-	-	41771	42171	42571	42971	Advanced installer	
41372	-	-	41772	42172	42572	42972	Advanced installer	
41373	-	-	41773	42173	42573	42973	Advanced installer	
41374	-	-	41774	42174	42574	42974	Advanced installer	
41375	-	-	41775	42175	42575	42975	Advanced installer	
41376	-	-	41776	42176	42576	42976	Advanced installer	
41377	-	-	41777	42177	42577	42977	Advanced installer	
41378	-	-	41778	42178	42578	42978	Advanced installer	
41379	-	-	41779	42179	42579	42979	Advanced installer	
41380	-	-	41780	42180	42580	42980	Advanced installer	
41381	C20.1	Time offset for special functions	41781	42181	42581	42981	Installer	1.0r2 bS:0 bP:0
41382	-	-	41782	42182	42582	42982	Advanced installer	1.0r3 bS:0 bP:1
41383	-	-	41783	42183	42583	42983	Advanced installer	
41384	-	-	41784	42184	42584	42984	Advanced installer	
41385	-	-	41785	42185	42585	42985	Advanced installer	
41386	-	-	41786	42186	42586	42986	Advanced installer	
41387	-	-	41787	42187	42587	42987	Advanced installer	

Adr.	Param.	Description	Address				User level (write)	From firmware
			Format	Value min.	Value max.	Default		
41388	-	-	41788	42188	42588	42988	Advanced installer	1.0r3 bS:0 bP:1
41389	-	-	41789	42189	42589	42989	Advanced installer	
41390	-	-	41790	42190	42590	42990	Advanced installer	
41391	-	-	41791	42191	42591	42991	Advanced installer	
41392	-	-	41792	42192	42592	42992	Advanced installer	
41393	-	-	41793	42193	42593	42993	Advanced installer	
41394	-	-	41794	42194	42594	42994	Advanced installer	
41395	-	-	41795	42195	42595	42995	Advanced installer	
41396	-	-	41796	42196	42596	42996	Advanced installer	
41397	-	-	41797	42197	42597	42997	Advanced installer	
41398	-	-	41798	42198	42598	42998	Advanced installer	
41399	-	-	41799	42199	42599	42999	Advanced installer	
41400	-	-	41800	42200	42600	43000	Advanced installer	

4 Room control unit settings

4.1 Informatin room control unit settings

The nominal temperature for hot water refers to the FriWa function and not to a built-in instantaneous water heater.

Current room temperature: Parameters S1.2 and S1.3 are taken into account.

These addresses can only be read and not written to.

4.2 Modbus register list room control unit settings

Address					Description	Addition	From firmware
RCU 1	RCU 2	RCU 3	RCU 4	RCU 5			
44001	44501	45001	45501	46001	Nominal temperature day	d°C [220 -> 22°C]	1.0r2 bS:0 bP:0
44002	44502	45002	45502	46002	Nominal temperature night	d°C [220 -> 22°C]	
44003	44503	45003	45503	46003	Antifreeze temperature	d°C [60 -> 6°C]	
44004	44504	45004	45504	46004	Mode of operation	0: time programme 1 3: Off 16: time programme 2	
44005	44505	45005	45505	46005			
44006	44506	45006	45506	46006			
44007	44507	45007	45507	46007	Nominal temperature hot water	d°C [220 -> 22°C]	
44008	44508	45008	45508	46008			
44009	44509	45009	45509	46009			
44010	44510	45010	45510	46010			
44011	44511	45011	45511	46011			
44012	44512	45012	45512	46012			
44013	44513	45013	45513	46013			
44014	44514	45014	45514	46014			
44015	44515	45015	45515	46015			
44016	44516	45016	45516	46016			
44017	44517	45017	45517	46017			
44018	44518	45018	45518	46018			
44019	44519	45019	45519	46019			

Address					Description	Addition	From firmware
RCU 1	RCU 2	RCU 3	RCU 4	RCU 5			
44020	44520	45020	45520	46020			1.0r2 bS:0 bP:0
44021	44521	45021	45521	46021	Nominal temperature party	d°C [220 -> 22°C]	
44022	44522	45022	45522	46022	Status special function party	MSB: 0: Off 1: On LSB: Time encoded in 15-minute increments - decimal. e.g.: 24 -> 06:00 a.m. 88 -> 10:00 p.m.	
44023	44523	45023	45523	46023	Nominal temperature Eco	d°C [220 -> 22°C]	
44024	44524	45024	45524	46024	Status special function Eco	MSB: 0: Off 1: On LSB: Time encoded in 15-minute increments - decimal. e.g.: 24 -> 06:00 a.m. 88 -> 22:00 p.m.	
44025	44525	45025	45525	46025	Nominal temperature holidays	d°C [220 -> 22°C]	
44026	44526	45026	45526	46026		MSB: day LSB: Bit 0-6: month Bit 7: 0=Off, 1=On	
44027	44527	45027	45527	46027			
44028	44528	45028	45528	46028			
44029	44529	45029	45529	46029			
44030	44530	45030	45530	46030			
44031	44531	45031	45531	46031	Current room temperature	d°C [220 -> 22°C]	
44032	44532	45032	45532	46032			
44033	44533	45033	45533	46033			
44034	44534	45034	45534	46034			
44035	44535	45035	45535	46035			

5 Room control unit parameters

Address					Description	Addition	From firmware
RCU 1	RCU 2	RCU 3	RCU 4	RCU 5			
44036	44536	45036	45536	46036			1.0r2 bS:0 bP:0
44037	44537	45037	45537	46037			
44038	44538	45038	45538	46038			
44039	44539	45039	45539	46039			
44040	44540	45040	45540	46040			
44041	44541	45041	45541	46041			
44042	44542	45042	45542	46042	Firmware version	2 decimal places	
44043	44543	45043	45543	46043			
44044	44544	45044	45544	46044			
44045	44545	45045	45545	46045			
44046	44546	45046	45546	46046			
44047	44547	45047	45547	46047			
44048	44548	45048	45548	46048			
44049	44549	45049	45549	46049			
44050	44550	45050	45550	46050			

5 Room control unit parameters

5.1 Information room control unit parameters

The room control unit number is determined by the pairing and not by the connection number.

1. paired room control unit: RCU 1
2. paired room control unit: RCU 2
3. paired room control unit: RCU 3
4. paired room control unit: RCU 4
5. paired room control unit: RCU 5

Transmitting the settings:

To transmit the settings, the following addresses must be written in one pass. Please note that temperature values that are not to be changed must also be transmitted. These must be transmitted with the currently valid value.

Adr.	Description	Addition	Addition 2	Addition 3	Addition 4	User level (write)	From firmware
40081	RCU number	0: RCU 1 1: RCU 2 2: RCU 3 3: RCU 4 4: RCU 5				Customer	1.0r2 bS:0 bP:0
40082	Time programme	MSB 0: Programme 1 1: Programme 2	LSB: 0: On 3: Off	0: Prog 1 On 3: Prog 1 Off	256: Prog 2 On 259: Prog 2 Off	Customer	
40083	Daytime temper- ature	d°C [180 -> 18°C]		Range: 6 °C up to 30 °C		Customer	
40084	Night-time temper- ature	d°C [180 -> 18°C]		Range: 6 °C up to 30 °C		Customer	
40085	Special function	0: None active 1: Party 2: Eco 3: Holidays				Customer	
40086	Stop time	Time when the special function ends.	MSB: Party: 0: Off / 1: On Eco: 0: Off / 1: On Holidays: day	LSB: Party: Time in 15- minute increments Eco: Time in 15- minute increments Holidays: bit 0-6: month bit 7: 0: Off 1: On	If address 40085 has the value 0, the entry here is irrelevant.	Customer	

5 Room control unit parameters

Adr.	Description	Addition	Addition 2	Addition 3	Addition 4	User level (write)	From firmware
40087	Special function - nominal temperature	d°C [180 -> 18°C]	If address 40085 has the value 0, the value 180 must be entered here.	Range: 6 °C up to 30 °C		Customer	1.0r2 bS:0 bP:0
40088	Antifreeze temperature	d°C [60 -> 6°C]		Range: 6 °C up to 12 °C		Customer	

Examples:

RCU	Time programme	Daytime temperature	Night-time temperature	Special function	Stop time	Special function nominal temperature	Anti-freeze temperature	Data to be written
1	Progr. 1: On	22 °C	18 °C	None active	-	-	6 °C	0 0 220 180 0 0 0 60
1	Progr. 2: On	20.5 °C	16 °C	None active	-	-	6 °C	0 256 205 160 0 0 0 60
2	Progr. 1: On	22 °C	18 °C	Eco	05:15 p.m.	17 °C	-	1 0 220 180 2 325 170 60
2	Progr. 1: On	22 °C	18 °C	None active	-	-		1 0 220 180 0 0 170 60

5.2 Modbus register list room control unit parameters

Parameter	Address					User level (write)	From firmware
	RCU 1	RCU 2	RCU 3	RCU 4	RCU 5		
P1.1	44201	44701	45201	45701	46201	Customer	1.0r2 bS:0 bP:0
P1.2	44202	44702	45202	45702	46202	Customer	1.0r2 bS:0 bP:0
P1.3	44203	44703	45203	45703	46203	Customer	1.0r2 bS:0 bP:0
P1.4	44204	44704	45204	45704	46204	Customer	1.0r2 bS:0 bP:0
P1.5	44205	44705	45205	45705	46205	Customer	1.0r2 bS:0 bP:0
P1.6	44206	44706	45206	45706	46206	Customer	1.0r2 bS:0 bP:0
P1.7	44207	44707	45207	45707	46207	Customer	1.0r2 bS:0 bP:0
P1.8	44208	44708	45208	45708	46208	Customer	1.0r2 bS:0 bP:0
P1.9	44209	44709	45209	45709	46209	Customer	1.0r2 bS:0 bP:0
P1.10	44210	44710	45210	45710	46210	Customer	1.0r2 bS:0 bP:0
P1.11	44211	44711	45211	45711	46211	Customer	1.0r2 bS:0 bP:0
P1.12	44212	44712	45212	45712	46212	Customer	1.0r2 bS:0 bP:0
P1.13	44213	44713	45213	45713	46213	Customer	1.0r2 bS:0 bP:0
P1.14	44214	44714	45214	45714	46214	Customer	1.0r2 bS:0 bP:0
P1.15	44215	44715	45215	45715	46215	Customer	1.0r2 bS:0 bP:0
P1.16	44216	44716	45216	45716	46216	Customer	1.0r2 bS:0 bP:0
P1.17	44217	44717	45217	45717	46217	Customer	1.0r2 bS:0 bP:0
P1.18	44218	44718	45218	45718	46218	Customer	1.0r2 bS:0 bP:0
P1.19	44219	44719	45219	45719	46219	Customer	1.0r2 bS:0 bP:0
P1.20	44220	44720	45220	45720	46220	Customer	1.0r2 bS:0 bP:0
P2.1	44221	44721	45221	45721	46221	Customer	1.0r2 bS:0 bP:0
P2.2	44222	44722	45222	45722	46222	Customer	1.0r2 bS:0 bP:0
P2.3	44223	44723	45223	45723	46223	Customer	1.0r2 bS:0 bP:0
P2.4	44224	44724	45224	45724	46224	Customer	1.0r2 bS:0 bP:0
P2.5	44225	44725	45225	45725	46225	Customer	1.0r2 bS:0 bP:0
P2.6	44226	44726	45226	45726	46226	Customer	1.0r2 bS:0 bP:0
P2.7	44227	44727	45227	45727	46227	Customer	1.0r2 bS:0 bP:0
P2.8	44228	44728	45228	45728	46228	Customer	1.0r2 bS:0 bP:0
P2.9	44229	44729	45229	45729	46229	Customer	1.0r2 bS:0 bP:0
P2.10	44230	44730	45230	45730	46230	Customer	1.0r2 bS:0 bP:0
P2.11	44231	44731	45231	45731	46231	Customer	1.0r2 bS:0 bP:0
P2.12	44232	44732	45232	45732	46232	Customer	1.0r2 bS:0 bP:0
P2.13	44233	44733	45233	45733	46233	Customer	1.0r2 bS:0 bP:0

5 Room control unit parameters

Parameter	Address					User level (write)	From firmware
	RCU 1	RCU 2	RCU 3	RCU 4	RCU 5		
P2.14	44234	44734	45234	45734	46234	Customer	1.0r2 bS:0 bP:0
P2.15	44235	44735	45235	45735	46235	Customer	1.0r2 bS:0 bP:0
P2.16	44236	44736	45236	45736	46236	Customer	1.0r2 bS:0 bP:0
P2.17	44237	44737	45237	45737	46237	Customer	1.0r2 bS:0 bP:0
P2.18	44238	44738	45238	45738	46238	Customer	1.0r2 bS:0 bP:0
P2.19	44239	44739	45239	45739	46239	Customer	1.0r2 bS:0 bP:0
P2.20	44240	44740	45240	45740	46240	Customer	1.0r2 bS:0 bP:0
S1.1	44241	44741	45241	45741	46241	Customer	1.0r2 bS:0 bP:0
S1.2	44242	44742	45242	45742	46242	Customer	1.0r2 bS:0 bP:0
S1.3	44243	44743	45243	45743	46243	Customer	1.0r2 bS:0 bP:0
S1.4	44244	44744	45244	45744	46244	Customer	1.0r2 bS:0 bP:0
S1.5	44245	44745	45245	45745	46245	Customer	1.0r2 bS:0 bP:0
S1.6	44246	44746	45246	45746	46246	Customer	1.0r2 bS:0 bP:0
S1.7	44247	44747	45247	45747	46247	Customer	1.0r2 bS:0 bP:0
S1.8	44248	44748	45248	45748	46248	Customer	1.0r2 bS:0 bP:0
S1.9	44249	44749	45249	45749	46249	Customer	1.0r2 bS:0 bP:0
S1.10	44250	44750	45250	45750	46250	Customer	1.0r2 bS:0 bP:0
S1.11	44251	44751	45251	45751	46251	Customer	1.0r2 bS:0 bP:0
S1.12	44252	44752	45252	45752	46252	Customer	1.0r2 bS:0 bP:0
S1.13	44253	44753	45253	45753	46253	Customer	1.0r2 bS:0 bP:0
S1.14	44254	44754	45254	45754	46254	Customer	1.0r2 bS:0 bP:0
S1.15	44255	44755	45255	45755	46255	Customer	1.0r2 bS:0 bP:0
S1.16	44256	44756	45256	45756	46256	Customer	1.0r2 bS:0 bP:0
S1.17	44257	44757	45257	45757	46257	Customer	1.0r2 bS:0 bP:0
S1.18	44258	44758	45258	45758	46258	Customer	1.0r2 bS:0 bP:0
S1.19	44259	44759	45259	45759	46259	Customer	1.0r2 bS:0 bP:0
S1.20	44260	44760	45260	45760	46260	Customer	1.0r2 bS:0 bP:0

6 Time programmes

6.1 Information time programmes

Notes:

All 42 registers of the time programme must always be read or written.

Examples:

Address	Value	Value binary	Meaning	
			MSB	LSB
443001	7960	MSB: 0001 1111 LSB: 0001 1000	0001 1111 -> Mon. - Fri.	0001 1000 -> 24 -> 6:00 a.m.
443002	11352	MSB: 0010 1100 LSB: 0101 1000	Not relevant, as end	0101 1000 -> 88 -> 10:00 p.m.
44305	7989	MSB: 0001 1111 LSB: 0011 0101	0001 1111 -> Mon. - Fri.	0011 0101 -> 53 -> 01:15 p.m.
44306	86	MSB: 0000 0000 LSB: 0101 0110	Not relevant, as end	0101 0110 -> 86 -> 09:30 p.m.
44308	1048	MSB: 0000 0100 LSB: 0001 1000	0000 0100 -> Wed.	0001 1000 -> 24 -> 6:00 a.m.
44309	52	MSB: 0000 0000 LSB: 0011 0100	Not relevant, as end	0011 0100 -> 52 -> 01:00 p.m.

6 Time programmes

6.2 Modbus register list time programmes

Adr.	Description	Addition 1	Addition 2	Addition 3	User level (write)	From firmware
44301	RCU 1 Programme 1	Start 1	MSB: week day Bit 0: Monday Bit 1: Tuesday Bit 2: Wednesday ... Bit 5: Saturday Bit 6: Sunday	LSB: Time in 15 minutes resolution Example: 0:15 a.m. -> 1 0:30 a.m. -> 2 0:45 a.m. -> 3 1:00 a.m. -> 4 6:00 a.m. -> 24 6:15 a.m. -> 25 7:30 a.m. -> 30 10:15 p.m. -> 89	Customer	1.0r2 bS:0 bP:0
44302		Stop 1				
44303		Start 2				
44304		Stop 2				
...		...				
44341		Start 21				
44342		Stop 21				
44343	RCU 1 Programme 2	Start 1				
44344		Stop 1				
44345		Start 2				
44346		Stop 2				
...		...				
44383		Start 21				
44384		Stop 21				

Adr.	Description	Addition 1	Addition 2	Addition 3	User level (write)	From firmware
44801	RCU 2 Programme 1	Start 1	MSB: week day Bit 0: Monday Bit 1: Tuesday Bit 2: Wednesday ... Bit 5: Saturday Bit 6: Sunday	LSB: Time in 15 minutes resolution Example: 0:15 a.m. -> 1 0:30 a.m. -> 2 0:45 a.m. -> 3 1:00 a.m. -> 4 6:00 a.m. -> 24 6:15 a.m. -> 25 7:30 a.m. -> 30 10:15 p.m. -> 89	Customer	1.0r2 bS:0 bP:0
44802		Stop 1				
44803		Start 2				
44804		Stop 2				
...		...				
44841		Start 21				
44842		Stop 21				
44843	RCU 2 Programme 2	Start 1				
44844		Stop 1				
44845		Start 2				
44846		Stop 2				
...		...				
44883		Start 21				
44884		Stop 21				

Adr.	Description	Addition 1	Addition 2	Addition 3	User level (write)	From firmware
45301	RCU 3 Programme 1	Start 1	MSB: week day Bit 0: Monday Bit 1: Tuesday Bit 2: Wednesday ... Bit 5: Saturday Bit 6: Sunday	LSB: Time in 15 minutes resolution Example: 0:15 a.m. -> 1 0:30 a.m. -> 2 0:45 a.m. -> 3 1:00 a.m. -> 4 6:00 a.m. -> 24 6:15 a.m. -> 25 7:30 a.m. -> 30 10:15 Uhr -> 89	Customer	1.0r2 bS:0 bP:0
45302		Stop 1				
45303		Start 2				
45304		Stop 2				
...		...				
45341		Start 21				
45342	RCU 3 Programme 2	Stop 21				
45343		Start 1				
45344		Stop 1				
45345		Start 2				
45346		Stop 2				
...		...				
45383		Start 21				
45384		Stop 21				

Adr.	Description	Addition 1	Addition 2	Addition 3	User level (write)	From firmware
45801	RCU 4 Programme 1	Start 1	MSB: week day Bit 0: Monday Bit 1: Tuesday Bit 2: Wednesday ... Bit 5: Saturday Bit 6: Sunday	LSB: Time in 15 minutes resolution Example: 0:15 a.m. -> 1 0:30 a.m. -> 2 0:45 a.m. -> 3 1:00 a.m. -> 4 6:00 a.m. -> 24 6:15 a.m. -> 25 7:30 a.m. -> 30 10:15 Uhr -> 89	Customer	1.0r2 bS:0 bP:0
45802		Stop 1				
45803		Start 2				
45804		Stop 2				
...		...				
45841		Start 21				
45842	RCU 4 Programme 2	Stop 21				
45843		Start 1				
45844		Stop 1				
45845		Start 2				
45846		Stop 2				
...		...				
45833		Start 21				
45834		Stop 21				

6 Time programmes

Adr.	Description	Addition 1	Addition 2	Addition 3	User level (write)	From firmware
46301	RCU 5 Programme 1	Start 1	MSB: week day Bit 0: Monday Bit 1: Tuesday Bit 2: Wednesday ... Bit 5: Saturday Bit 6: Sunday	LSB: Time in 15 minutes resolution Example: 0:15 a.m. -> 1 0:30 a.m. -> 2 0:45 a.m. -> 3 1:00 a.m. -> 4 6:00 a.m. -> 24 6:15 a.m. -> 25 7:30 a.m. -> 30 10:15 Uhr -> 89	Customer	1.0r2 bS:0 bP:0
46302		Stop 1				
46303		Start 2				
46304		Stop 2				
...		...				
46341		Start 21				
46342		Stop 21				
46343	RCU 5 Programme 2	Start 1				
46344		Stop 1				
46345		Start 2				
46346		Stop 2				
...		...				
46383		Start 21				
46384		Stop 21				



7 Notes

Item no. 99E13676630-reg-en

Translation of the original instructions

We reserve the right to make technical changes without notice!

Printed in Germany – Copyright by PAW GmbH & Co. KG

PAW GmbH & Co. KG

Böcklerstraße 11

31789 Hameln, Germany

www.paw.eu

Phone: +49-5151-9856-0

Fax: +49-5151-9856-98