

Used with controller MCR 200-...

	Code	Description	Range	Default	Unit
		Meaning of specific entries			
	Bereich: 1xx: Heating circuit 1				
12-13-22-32-41-43-45-51-52-53-54-55-----65----->	101	Minimum limitation of flow temperature	0...150	10	°C
12-13-22-32-41-43-45-51-52-53-54-55-----65----->	102	Maximum limitation of flow temperature	0...150	90	°C
12-13-22-32-41-43-45-51-52-53-54-55-----65----->	103	Flow temperature: Setpoint ramp	12...500	500	K / h
12-13-22-32-41-43-45-51-52-53-54-55-----65----->	104	Minimum room temperature	0...20	10	°C
12-13-22-32-41-43-45-51-52-53-54-55-----65----->	105	Minimum room temperature	10...90	30	°C
12-13-22-32-41-43-45-51-52-53-54-55-----65----->	106	Room temperature: Setpoint ramp	0,1...500	500	K / h
12-13-22-32-41-43-45-51-52-53-54-55-----65----->	107	TF 26 intervention: Overtime compensation	10...35	20	°C
12-13-22-32-41-43-45-51-52-53-54-55-----65----->	108	TF 26 intervention: Night setpoint	0...20	15,0	°C
12-13-22-32-41-43-45-51-52-53-54-55-----65----->	109	Frost protection limit	-50...10	0	°C
12-13-22-32-41-43-45-51-52-53-54-55-----65----->	110	Momentary outside temperature heating limit	10...50	22	°C
12-13-22-32-41-43-45-51-52-53-54-55-----65----->	111	Delayed outdoor temperature heating limit	10...50	20	°C
12-13-22-32-41-43-45-51-52-53-54-55-----65----->	112	Display of delayed outdoor temperature (for heating limit)	-	-	°C
12-13-22-32-41-43-45-51-52-53-54-55-----65----->	113	Building parameter T (time constant for delayed outdoor temperature)	0,1...10	2	h
12-13-22-32-41-43-45-51-52-53-54-55-----65----->	114	Hot water priority (0 = no influence)	0...10	2	-
12-13-22-32-41-43-45-51-52-53-54-55-----65----->	115	Number of the valid outdoor temperature sensor	0/1/2	2	-
		0 Local			
		1 Bus			
		2 Automatic			
12-13-22-32-41-43-45-51-52-53-54-55-----65----->	116	Solar- / wind compensation	-1,0...1,0	0	-
		0...+1 Wind			
		0...-1 Sun			
12-13-22-32-41-43-45-51-52-53-54-55-----65----->	117	Type of control	1/2/3/4/5	2	-
		1 Room temperature control			
		2 Outside temperature control			
		3 External temperature demand by 0...10 V signal			
		4 External switching contact mode 1			
		5 External switching contact mode 2			
12-13-22-32-41-43-45-51-52-53-54-55-----65----->	118	Flow temperature control: Proportional band Xp	2...100	100	K

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		Meaning of specific entries			
12-13-22-32-41-43-45-51-52-53-54-55-----65----->	119	Flow temperature control: Integral action time Ti (5 = P-controller)	5...4000	24	sec
12-13-22-32-41-43-45-51-52-53-54-55-----65----->	120	Flow temperature control: Threshold	0...10	0,5	K
12-13-22-32-41-43-45-51-52-53-54-----65----->	121	Motor running time	10...1800	100	sec
12-13-22-32-41-43-45-51-52-53-54-55-----65----->	122	Room temperature control: Proportional band	2...100	5,0	K
12-13-22-32-41-43-45-51-52-53-54-55-----65----->	123	Room temperature control: Integral action time	5...4000	4000	sec
12-13-22-32-41-43-45-51-52-53-54-55-----65----->	124	Room temperature control: Response threshold	0...10	0,2	K
12-13-22-32-41-43-45-51-52-53-54-55-----65----->	125	Alarm delay after pump / mixer fail (600 min. = no alarm)	5...600	120	min
12-13-22-32-41-43-45-51-52-53-54-55-----65----->	126	Pump protection: Interval	24...672	168	h
12-13-22-32-41-43-45-51-52-53-54-55-----65----->	127	Pump protection: Running time	30...3600	60	sec
12-13-22-32-41-43-45-----65----->	128	Pump cut-off delay	0...120	15	min
12-13-22-32-41-43-45-51-52-53-54-55-----65----->	129	Time for overtime function	0...18	2	h
12-13-22-32-41-43-45-51-52-53-54-55-----65----->	130	Setup paramaters > 2 Flow setpoint for screed drying 1 New start of the delayed outside temperature	0...50	0	-
12-13-22-32-41-43-45-51-52-53-54-55-----65----->	131	Adaption 0 Locked 1 Released 2 New start of the adaption	0/1/2	0	-
12-13-22-32-41-43-45-51-52-53-54-55-----65----->	132	EOH*: Identification of time constant 0 Released 1 Locked 2 New start of the adaption	0/1/2	0	-
12-13-22-32-41-43-45-51-52-53-54-55-----65----->	133	EOH*: Room temperature sensor 0 EOH without TF 26 1 EOH with TF 26	0/1	0	-
12-13-22-32-41-43-45-51-52-53-54-55-----65----->	134	EOH*: Heating up time with TF 26	0...1440	120	min
12-13-22-32-41-43-45-51-52-53-54-55-----65----->	135	EOH*: Maximum flow temperature for heating up with TF 26	0...150	80	°C
12-13-22-32-41-43-45-51-52-53-54-55-----65----->	136	EOH*: Room temperature excess	0...20	10	K
12-13-22-32-41-43-45-51-52-53-54-55-----65----->	137	EOH*: Heating up time at 0 °C (without TF 26)	0...1440	120	min

Code Tables MCR 200-xx

Used with controller MCR 200-...	Code	Description	Range	Default	Unit
		Meaning of specific entries			
12-13-22-32-41-43-45-51-52-53-54-55-----65----->	138	EOH*: Minimum outdoor temperature for early cut-off	-10...15	0	°C
12-13-22-32-41-43-45-51-52-53-54-55-----65----->	139	EOH*: Factor for optimised early cut-off with TF 26	0...60	10	min / K
12-13-22-32-41-43-45-51-52-53-54-55-----65----->	140	EOH*: Dead time for short temperature reduction	0...60	5	min
12-13-22-32-41-43-45-51-52-53-54-55-----65----->	141	EOH*: Time constant for short temperature reduction	0...2880	600	min
12-13-22-32-41-43-45-51-52-53-54-55-----65----->	142	EOH*: Dead time for long temperature reduction	0...60	5	min
12-13-22-32-41-43-45-51-52-53-54-55-----65----->	143	EOH*: Time constant for long temperature reduction	0...2880	1200	min
12-13-22-32-41-43-45-51-52-53-54-55-----65----->	144	Heating characteristic: Slope	0,4...4,5	1,6	-
12-13-22-32-41-43-45-51-52-53-54-55-----65----->	145	Heating characteristic: Curvature	1,0...1,6	1,3	-
12-13-22-32-41-43-45-51-52-53-54-55-----65----->	146	Display delayed outdoor temperature with Code 113	-	-	°C
12-13-22-32-41-43-45-----53----->	148	Return temperature limit 0 Active 1 Inactive	0/1	1	-
12-13-22-32-41-43-45-51-52-53-54----->	149	Return temperature limit: Proportional band	2...100	100	K
12-13-22-32-41-43-45-51-52-53-54----->	150	Return temperature limit: Delay time	0...4000	24	sec
12-13-22-32-41-43-45-51-52-53-54----->	151	Return temperature limit: Slope	0,4...4,5	1,6	-
12-13-22-32-41-43-45-51-52-53-54----->	152	Return temperature limit: Upper value	0...120	90	°C
12-13-22-32-41-43-45-51-52-53-54----->	153	Return temperature limit: Lower value	0...90	90	°C
12-13-22-32-41-43-45-51-52-53-54----->	154	Return temperature limit: Initial point (outdoor temperature)	-20...50	20	°C
-----41-43-45----->	155.1	Outdoor temperature limitation for suspending of night temperature reduction	-45...0	-45	°C
12-13-22-32-41-43-45-51-52-53-54-55-----65----->	156	Demand to heat generator (0 = switched off)	0/1	1	-

Used with controller MCR 200-...

	Code	Description	Range	Default	Unit
		Meaning of specific entries			
	Bereich: 2xx: Heating circuit 2				
-----22-32-41-43-45-----53----->	201	Minimum limitation of flow temperature	0...150	10	°C
-----22-32-41-43-45-----53----->	202	Maximum limitation of flow temperature	0...150	90	°C
-----22-32-41-43-45-----53----->	203	Flow temperature: Setpoint ramp	12...500	500	K / h
-----22-32-41-43-45-----53----->	204	Minimum room temperature	0...20	10	°C
-----22-32-41-43-45-----53----->	205	Minimum room temperature	10...90	30	°C
-----22-32-41-43-45-----53----->	206		0,1...500	500	K / h
-----22-32-41-43-45-----53----->	207	TF 26 intervention: Overtime compensation	10...35	20	°C
-----22-32-41-43-45-----53----->	208	TF 26 intervention: Night setpoint	0...20	15,0	°C
-----22-32-41-43-45-----53----->	209	Frost protection limit	-50...10	0	°C
-----22-32-41-43-45-----53----->	210	Momentary outside temperature heating limit	10...50	22	°C
-----22-32-41-43-45-----53----->	211	Delayed outdoor temperature heating limit	10...50	20	°C
-----22-32-41-43-45-----53----->	212	Display of delayed outdoor temperature (for heating limit)	-	-	°C
-----22-32-41-43-45-----53----->	213	Building parameter T (time constant for delayed outdoor temperature)	0,1...10	2	h
-----22-32-41-43-45-----53----->	214	Hot water priority (0 = no influence)	0...10	2	-
-----22-32-41-43-45-----53----->	215	Number of the valid outdoor temperature sensor	0/1/2	2	-
		0 Local			
		1 Bus			
		2 Automatic			
-----22-32-41-43-45-----53----->	216	Solar- / wind compensation	-1,0...1,0	0	-
		0...+1 Wind			
		0...-1 Sun			
-----22-32-41-43-45-----53----->	217	Type of control	1/2/3/4/5	2	-
		1 Room temperature control			
		2 Outside temperature control			
		3 External temperature demand by 0...10 V signal			
		4 External switching contact mode 1			
		5 External switching contact mode 2			
-----22-32-41-43-45-----53----->	218	Flow temperature control: Proportional band Xp	2...100	100	K

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		Meaning of specific entries			
-----22-32-41-43-45-----53----->	219	Flow temperature control: Integral action time Ti (5 = P-controller)	5...4000	24	sec
-----22-32-41-43-45-----53----->	220	Flow temperature control: Threshold	0...10	0,5	K
-----22-32-41-43-45-----53----->	221	Motor running time	10...1800	100	sec
-----22-32-41-43-45-----53----->	222	Room temperature control: Proportional band	2...100	5,0	K
-----22-32-41-43-45-----53----->	223	Room temperature control: Integral action time	5...4000	4000	sec
-----22-32-41-43-45-----53----->	224	Room temperature control: Response threshold	0...10	0,2	K
-----22-32-41-43-45-----53----->	225	Alarm delay after pump / mixer fail (600 min. = no alarm)	5...600	120	min
-----22-32-41-43-45-----53----->	226	Pump protection: Interval	24...672	168	h
-----22-32-41-43-45-----53----->	227	Pump protection: Running time	30...3600	60	sec
-----22-32-41-43-45-----53----->	228	Pump cut-off delay	0...120	15	min
-----22-32-41-43-45-----53----->	229	Time for overtime function	0...18	2	h
-----22-32-41-43-45-----53----->	230	Setup paramaters	0...50	0	-
		> 2 Flow setpoint for screed drying			
		1 New start of the delayed outside temperature			
-----22-32-41-43-45-----53----->	231	Adaption	0/1/2	0	-
		0 Locked			
		1 Released			
		2 New start of the adaption			
-----22-32-41-43-45-----53----->	232	EOH*: Identification of time constant	0/1/2	0	-
		0 Released			
		1 Locked			
		2 New start of the adaption			
-----22-32-41-43-45-----53----->	233	EOH*: Room temperature sensor	0/1	0	-
		0 EOH without TF 26			
		1 EOH with TF 26			
-----22-32-41-43-45-----53----->	234	EOH*: Heating up time with TF 26	0...1440	120	min
-----22-32-41-43-45-----53----->	235	EOH*: Maximum flow temperature for heating up with TF 26	0...150	80	°C
-----22-32-41-43-45-----53----->	236	EOH*: Room temperature excess	0...20	10	K
-----22-32-41-43-45-----53----->	237	EOH*: Heating up time at 0 °C (without TF 26)	0...1440	120	min

Used with controller MCR 200-...	Code	Description	Range	Default	Unit
		Meaning of specific entries			
-----22-32-41-43-45-----53----->	238	EOH*: Minimum outdoor temperature for early cut-off	-10...15	0	°C
-----22-32-41-43-45-----53----->	239	EOH*: Factor for optimised early cut-off with TF 26	0...60	10	min / K
-----22-32-41-43-45-----53----->	240	EOH*: Dead time for short temperature reduction	0...60	5	min
-----22-32-41-43-45-----53----->	241	EOH*: Time constant for short temperature reduction	0...2880	600	min
-----22-32-41-43-45-----53----->	242	EOH*: Dead time for long temperature reduction	0...60	5	min
-----22-32-41-43-45-----53----->	243	EOH*: Time constant for long temperature reduction	0...2880	1200	min
-----22-32-41-43-45-----53----->	244	Heating characteristic: Slope	0,4...4,5	1,6	-
-----22-32-41-43-45-----53----->	245	Heating characteristic: Curvature	1,0...1,6	1,3	-
-----22-32-41-43-45-----53----->	246	Display delayed outdoor temperature with Code 213	-	-	°C
-----22-32-41-43-45-----53----->	248	Return temperature limit 0 Active 1 Inactive	0/1	1	-
-----22-32-41-43-45-----53----->	249	Return temperature limit: Proportional band	2...100	100	K
-----22-32-41-43-45-----53----->	250	Return temperature limit: Delay time	0...4000	24	sec
-----22-32-41-43-45-----53----->	251	Return temperature limit: Slope	0,4...4,5	1,6	-
-----22-32-41-43-45-----53----->	252	Return temperature limit: Upper value	0...120	90	°C
-----22-32-41-43-45-----53----->	253	Return temperature limit: Lower value	0...90	90	°C
-----22-32-41-43-45-----53----->	254	Return temperature limit: Initial point (outdoor temperature)	-20...50	20	°C
-----32-----43-45----->	255.1	Outdoor temperature limitation for suspending of night temperature reduction	-45...0	-45	°C
-----22-32-41-43-45-----53----->	256	Demand to heat generator (0 = switched off)	0/1	1	-

Used with controller MCR 200-...

	Code	Description	Range	Default	Unit
		Meaning of specific entries			
	Bereich: 3xx: Heating circuit 3				
-----32-----43-45----->	301	Minimum limitation of flow temperature	0...150	10	°C
-----32-----43-45----->	302	Maximum limitation of flow temperature	0...150	90	°C
-----32-----43-45----->	303	Flow temperature: Setpoint ramp	12...500	500	K / h
-----32-----43-45----->	304	Minimum room temperature	0...20	10	°C
-----32-----43-45----->	305	Minimum room temperature	10...90	30	°C
-----32-----43-45----->	306		0,1...500	500	K / h
-----32-----43-45----->	307	TF 26 intervention: Overtime compensation	10...35	20	°C
-----32-----43-45----->	308	TF 26 intervention: Night setpoint	0...20	15,0	°C
-----32-----43-45----->	309	Frost protection limit	-50...10	0	°C
-----32-----43-45----->	310	Momentary outside temperature heating limit	10...50	22	°C
-----32-----43-45----->	311	Delayed outdoor temperature heating limit	10...50	20	°C
-----32-----43-45----->	312	Display of delayed outdoor temperature (for heating limit)	-	-	°C
-----32-----43-45----->	313	Building parameter T (time constant for delayed outdoor temperature)	0,1...10	2	h
-----32-----43-45----->	314	Hot water priority (0 = no influence)	0...10	2	-
-----32-----43-45----->	315	Number of the valid outdoor temperature sensor	0/1/2	2	-
		0 Local			
		1 Bus			
		2 Automatic			
-----32-----43-45----->	316	Solar- / wind compensation	-1,0...1,0	0	-
		0...+1 Wind			
		0...-1 Sun			
-----32-----43-45----->	317	Type of control	1/2/3/4/5	2	-
		1 Room temperature control			
		2 Outside temperature control			
		3 External temperature demand by 0...10 V signal			
		4 External switching contact mode 1			
		5 External switching contact mode 2			
-----32-----43-45----->	318	Flow temperature control: Proportional band Xp	2...100	100	K

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		Meaning of specific entries			
-----32-----43-45----->	319	Flow temperature control: Integral action time Ti (5 = P-controller)	5...4000	24	sec
-----32-----43-45----->	320	Flow temperature control: Threshold	0...10	0,5	K
-----32-----43-45----->	321	Motor running time	10...1800	100	sec
-----32-----43-45----->	322	Room temperature control: Proportional band	2...100	5,0	K
-----32-----43-45----->	323	Room temperature control: Integral action time	5...4000	4000	sec
-----32-----43-45----->	324	Room temperature control: Response threshold	0...10	0,2	K
-----32-----43-45----->	325	Alarm delay after pump / mixer fail (600 min. = no alarm)	5...600	120	min
-----32-----43-45----->	326	Pump protection: Interval	24...672	168	h
-----32-----43-45----->	327	Pump protection: Running time	30...3600	60	sec
-----32-----43-45----->	328	Pump cut-off delay	0...120	15	min
-----32-----43-45----->	329	Time for overtime function	0...18	2	h
-----32-----43-45----->	330	Setup paramaters	0...50	0	-
		> 2 Flow setpoint for screed drying 1 New start of the delayed outside temperature			
-----32-----43-45----->	331	Adaption	0/1/2	0	-
		0 Locked 1 Released 2 New start of the adaption			
-----32-----43-45----->	332	EOH*: Identification of time constant	0/1/2	0	-
		0 Released 1 Locked 2 New start of the adaption			
-----32-----43-45----->	333	EOH*: Room temperature sensor	0/1	0	-
		0 EOH without TF 26 1 EOH with TF 26			
-----32-----43-45----->	334	EOH*: Heating up time with TF 26	0...1440	120	min
-----32-----43-45----->	335	EOH*: Maximum flow temperature for heating up with TF 26	0...150	80	°C
-----32-----43-45----->	336	EOH*: Room temperature excess	0...20	10	K
-----32-----43-45----->	337	EOH*: Heating up time at 0 °C (without TF 26)	0...1440	120	min

Used with controller MCR 200-...	Code	Description	Range	Default	Unit
		Meaning of specific entries			
-----32-----43-45----->	338	EOH*: Minimum outdoor temperature for early cut-off	-10...15	0	°C
-----32-----43-45----->	339	EOH*: Factor for optimised early cut-off with TF 26	0...60	10	min / K
-----32-----43-45----->	340	EOH*: Dead time for short temperature reduction	0...60	5	min
-----32-----43-45----->	341	EOH*: Time constant for short temperature reduction	0...2880	600	min
-----32-----43-45----->	342	EOH*: Dead time for long temperature reduction	0...60	5	min
-----32-----43-45----->	343	EOH*: Time constant for long temperature reduction	0...2880	1200	min
-----32-----43-45----->	344	Heating characteristic: Slope	0,4...4,5	1,6	-
-----32-----43-45----->	345	Heating characteristic: Curvature	1,0...1,6	1,3	-
-----32-----43-45----->	346	Display delayed outdoor temperature with Code 313	-	-	°C
-----32-----43-45----->	348	Return temperature limit 0 Active 1 Inactive	0/1	1	-
-----32-----43-45----->	349	Return temperature limit: Proportional band	2...100	100	K
-----32-----43-45----->	350	Return temperature limit: Delay time	0...4000	24	sec
-----32-----43-45----->	351	Return temperature limit: Slope	0,4...4,5	1,6	-
-----32-----43-45----->	352	Return temperature limit: Upper value	0...120	90	°C
-----32-----43-45----->	353	Return temperature limit: Lower value	0...90	90	°C
-----32-----43-45----->	354	Return temperature limit: Initial point (outdoor temperature)	-20...50	20	°C
-----43-45----->	355.1	Outdoor temperature limitation for suspending of night temperature reduction	-45...0	-45	°C
-----32-----43-45----->	356	Demand to heat generator (0 = switched off)	0/1	1	-

Used with controller MCR 200-...

	Code	Description Meaning of specific entries	Range	Default	Unit
Bereich: 5xx: Hot water storage tank					
12-13-22-32-43-51-52-53-54-55-65->	501	Hot water priority (0 = none)	0...60	40	min
---13---32---43-----65->	502.1	Maximum limit, hot water setpoint	0...90	60	°C
12-13-22-32-43-51-52-53-54-55-65->	503	Switching difference	0...30	5	K
12-13-22-32-43-51-----65->	504	Hot water charging excess	0...30	15	K
12-13-22-32-43-51-52-53-55-65->	505	Boiler requirement 0 Off 1 On	0/1	1	-
12-13-22-32-43-----52-53-----65->	506	Boiler temperature influence 0 Off 1 On	0/1	1	-
12-13-22-32-43-51-52-53-54-55-65->	507	Forced pump operation: interval	24...672	168	h
12-13-22-32-43-51-52-53-54-55-65->	508	Forced pump operation: running time	30...600	60	sec
12-13-22-32-43-51-52-53-54-55-65->	509	Type of hot water priority 0 Priority off 1 Simple priority 2 Absolute priority	0/1/2	1	-
12-13-22-32-43-51-52-53-54-55-65->	514	Hot water alarm delay (600 = no alarm)	10...600	120	min
12-13-22-32-43-----52-53-----65->	520	Circulation pump off during DHW charging (1 = off)	0/1	0	-
12-13-22-32-43-----65->	521	Maximum pump switch off delay	0...600	600	sec

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Bereich: 16xx: Display parameters					
12-13-22-32-41-43-45-51-52-53-54-55-61-62-63-64-65-71----->	1601	Input GV1: Flow temperature demand	-	-	°C
12-13-22-32-41-43-45-51-52-53-54-55-----65-71----->	1602	Input GV1: Priority (Heating circuit: Override)	-	-	-
12-13-22-32-41-43-45-51-52-53-54-55-61-62-63-64-65-71----->	1603	Input GV1: Collective alarm signal	-	-	-
12-13-22-32-41-43-45-51-52-53-54-55-61-62-63-64-65-71----->	1604	Input GV1: Outside temperature	-	-	°C
12-13-22-32-41-43-45-51-52-53-54-55-----65----->	1605	Input GV1: Solar / wind sensor	-	-	V
12-13-22-32-41-43-45-51-52-53-54-55----->	1606	Input GV1: Status for district heating			-
12-13-22-32-41-43-45-51-52-53-54-55-61-62-63-64-65----->	1611	Output GV1: Flow temperature demand	-	-	°C
12-13-22-32-43-51-52-53-54-55-----65-71----->	1612	Output GV1: Priority (Heating circuit: Override)	-	-	-
12-13-22-32-41-43-45-51-52-53-54-55-61-62-63-64-65-71----->	1613	Output GV1: Collective alarm signal	-	-	-
12-13-22-32-41-43-45-51-52-53-54-55-61-62-63-64-65-71----->	1614	Output GV1: Outside temperature	-	-	°C
12-13-22-32-41-43-45-51-52-53-54-55----->	1616	Output GV1: Status for district heating			
12-13-22-32-41-43-45-51-----54-55-----62-----65----->	1621	Alarm delay SM1	0...30000	10	sec
12-13-22-41-43-51-----55-----62----->	1622	Alarm delay SM2	0...30000	10	sec
12-13-22-32-41-43-45-51-52-53-54-55-61-62-63-64-65-71----->	1650	Degree day calculation: Basic temperature	0...50	15	°C
12-13-22-32-41-43-45-51-52-53-54-55-61-62-63-64-65-71----->	1702	Reset	-	-	-

Used with controller MCR 200-...

Code	Description	Range	Default	Unit
	Meaning of specific entries			