# 1 Overview of settings

### 1.1 3rd level 관

rameter	Function	u utting range		Basic setting Date: Heating circuit			Adaptions Date: Heating circuit			classic/comfort		
Pa		Se	Fa	1(green)	2 (red)	1(green)	2 (red)	Π	X =a	ctive		
2.0	Room protection temperature	3 ÷15	10					°C	X	Х		
3-0	It is valid for all heating modes if cha trol FS 5601) room temperature bec	anged to h comes refe	iolyda erence	y, standby, s e temperatu	summer. Wi re.	th room tem	perature se	nsor (r	emote	con-		
	Fix point temperature	10÷80	25					°C	Х	Х		
3-1	Flow temperature at 20 °C outside temperature valid for all slopes. <b>Recommended values</b> (basic values): Floor heating system = 25 °C; Radiator heating system = 35 °C											
3-2	Heating limit with reduced operating (automatic programs only)	-10 ÷20	5					°C	Х	Х		
	With average outside temperature above set value = heating gets turned off. With average outside temperature below set value - 2 K = heating gets turned on. If the set value is below 2 °C frost protection mode becomes active.											
	Start optimisation	0÷999	0					m	Х	Х		
The set time refers to -10 °C outside temperature.         It results the following anticipation:         • With outside temperature at -10 °C: 100 % of the set value         3-6         • With outside temperature at 20 °C:         • With outside temperature at 20 °C:         • Floor heating system         • Floor heating system         • Radiator heating system         • Disabled no function												
	Room temperature compensa- tion (With remote control FS 5601 only)	0÷10	0					K/K	Х	х		
3-7	Room temperature to high in the Room temperature to low in the 0 = no compensation     1-3 = weak compensation     4-6 = average compensation     7-10 = strong compensation     Note: With floor heating systems do	e room = e room = o not exce	ed se	ease of flow ase of flow tting 4.	temperature	e e						

Parameter	Function	Setting range	Factory setting	Basic setting Date: Heating circuit		Adaptions Date: Heating circuit		Unity	expert	avito avito classic/comfort	
	Heating limit depending on calculated flow temperature setpoint value	-10 ÷60	2					К	х	х	
3-8	If calculated flow temperature setpoint is no more able to contribute to the heating (room temperature set point + set value), heating system is turned off. It is again activated if difference exceeds set value + 2 K. 2 = standard value -10 = function disabled										
	Legionnella protection	0÷9	0					-	Х	Х	
<ul> <li>3-9</li> <li>8 = everyday</li> <li>9 = continuously 60 °C</li> <li>0 = function disabled</li> </ul>									ne sele	ected	

## 1.2 4th level - Configuration of the plant

ode	arameter	Functions	etting range	actory setting	Basic setting Date:	Adap Date:	itions	nity	< expert	classic/comfort		
Ũ	à	Memorica concer configuration	<b>Š</b>	ŭ				n	X = a			
1	4-0	If all necessary sensors are wired, set this value to "on" thus to memorise sensor configuration. Then change setting level or close the front cover. Setting returns automatically to "off" after about 30 seconds. It generates an error message if a sensor value gets out of measuring range.							etting			
1	4 1	Calculation of average outside temperature The calculation of the average outside	0÷40 temperatu	10 re per	mits to consider the ir	nertial of tl	ne building	- g. It is u	X Ised as	X s refe-		
I	4-1	and a second s										
		Function of external setpoint value input	0÷6	0				-	Х	Х		
2	4-2	The set value defines the allocation of t <b>Note:</b> Inputs of thermostats/Telecoman External setpoint value is assigned to: 0 = the heat management (= setting 1) 1 = the heat management 2 = the heating circuit 1 3 = the heating circuit 2 if applied tension is at maximum (10 VE 4 = heating circuit 1 (green) 5 = heating circuit 2 (red) 6 = both circuits1 (green) and 2 (red) <b>Note:</b> Standby = heating circuit and DH	he extern d (termina DC), heatin	al setp als P11 ng circ	oint value (010 VDC I/1 and P11/2) are dis uits are turned to "sta	C = 010 abled. ndby" as	0°C) follows					
		eBUS address of heating circuit/ DHW controller	0/2 3÷5 17÷20	2				-	Х	х		
1	4-4	If the plant works with one single control Up to 7 Slaves can be connected to a M applied its address has to be set to 0. If heating circuits/DHW production of the	oller, the s Aaster cor le Slave co	et valu htroller ontrolle	e 2 remains unchang . If heating circuits/DF ers is applied its addre	ed. IW produ ess has to	ction of the	e contro s follows	oller ar s:	e not		
		Master = 2 Slave 2 Slave 1 = 3 Slave 3	= 4		Slave 4 = 17 Slave 5 = 18		Slave 6 Slave 7	= 19 = 20				

## 1.3 5th level - DHW production

Code	arameter	Function	Setting range	<sup>-</sup> actory setting	Basic setting Date:	Adaptions Date:	Jnity	expert	a a classic/comfort					
2	5-0	Switching difference DHW production	2÷20	5			к	Х	Х					
		Charging is turned on (within the time	program)	if DHW	temperature is belo	w nominal temperate	ure by t	he set v	/alue.					
2	5-1	Increase of boiler temperature for DHW production	2÷30	20			К	Х	Х					
		Boiler set temperature for DHW production results form the nominal DHW temperature increased by the set value.												
		DHW production parallel or prior to heating	on/off 0.2÷20.0	off			-	Х	Х					
1	5-2	on = absolutely parallel off = absolutely prior 20 200 minutes = parallel production charge depending. Controller calculates a ramp which defines, that within the set time boiler has to reach charging temperature. Below the calculated ramp valves are gradually closing. Above that line they are acting normally.												
2	5-3	Post function mode of DHW charging	0÷30	3			m	Х	Х					
2	0.0	The set value defines for how much time charging (e.g. pump) is kept running when the nominal DHW temperature is reached.												
2	5-4	Legionnella protection tempera- ture	60÷80	60			°C	Х	Х					
		DHW is heated to that temperature the	ne day sele	ected in	parameter 3-4. It is	higher than normal	DHW t	empera	ture.					
		Type of DHW production	0÷2	0				Х	Х					
2	5-5	<ul> <li>Configuration of DHW production:</li> <li>0 = post function of DHW charging for the time set in parameter 5-3, charging starts immediately when enabled.</li> <li>1 = post function of DHW charging for the time set in parameter 5-3, charging starts if TK is above 5K and if it exceeds the DHW tank temperature by 5 K; it ends in any case with TK &lt; TB + 3K.</li> <li>2 = by DHW tank thermostat (external activation with a potential free contact)</li> </ul>												

#### 1.4 7th level - Heating circuits

	er	Function	l ange		Basic setting Date: Heating circuit		Adap Date: Heating	tions circuit		t	c/comfort	
ade	ramete		tting n	ctory tting					nity	expert	classi	
C	Ра		Se	Fa se	1 (green)	2 (red)	1 (green)	2 (red)	Ur	X = a	ctive	
		Type of heating circuit (adaption to the actuator)	0÷3	0					-	Х	Х	
1	7-0	<ul> <li>mand.</li> <li>1 = 2 point output for mixing valve actuators with automatic return, e.g. thermally valves. The actuators gets a command to open. If this stops, it automatically runs back.</li> <li>2 = 2 point output to command a flow pump for a direct heating circuit.</li> <li>Pump is working continuously during heating operation. (The mixing valve symbol is hidden. Do not connect a flow sensor.)</li> <li>3 = heating circuit disabled</li> <li>Note: If set to 3 the following parameters are hidden.</li> </ul>										
2		Increase of boiler tempera- ture for heating	0÷30	5					К	Х	Х	
	7-1	During heating operation set value for the generator is the calculated flow setpoint temperature in-creased by the set value. Information: Not operative with parameter 7-0 = 2 (direct heating circuit) With direct heating circuit it has to be set to 0.										
		Minimal flow temperature	0÷80	0					°C	Х	Х	
2	7-2	A minimal flow temperature ca That temperature setpoint rem	n be set. ains at lea	ast valid in	normal and	I reduced he	eating mode	e.				
2	7-3	Post function of flow pump/ close command of the valve	0÷30	15					m	Х	Х	
2	, ,	The flow pump keeps running for the time set when heating is turned off. Mixing valve actuator is closed within the same time. Set value has to be longer than the running time of the mixing valve actuator.										
		Proportional range (P-range)	5÷30	15					К	Х	Х	
2	7-4	P-Range setting defines above "open" or "close" (no more puls A minor set value causes with in A major set value causes with i	what diffe ses). ncreasing ncreasing	erence bet difference difference	ween setpoi e a major mo e a minor mo	nt and meas dification of odification o	sured value f mixing. Mix if mixing. Mix	the output s ing valve cir xing valve c	ignal i rcuit re ircuit r	s contir eacts ra reacts s	nuous pidly. slowly.	
		Frost protection limit	-10 ÷20	2					°C	Х	Х	
2	7-6	With outside temperatures belo set value by 2 K frost protectio	ow the set n mode b	value fros ecomes de	st protection eactivated.	function is	activated. If	outside ten	nperat	ure exc	ceeds	

#### 1.5 10th level - Parameters of heat generator (2)

ode	arameter	Function	etting range	actory setting	Basic s Date:	setting	Adap Date:	tions	nity	<pre>cexpert</pre>	classic/comfort	
Ŭ	P;	Maximal temperature of ge-	<b>5</b> 0 ÷	Fi Fi	i (green)	2 (red)	i (green)	2 (rea)	n :	X = 2	ictive	
2	10-0	nerator	110	95					۰C	X	X	
2	10-0	Exceeding set maximal temperature forced removal of energy by the heating circuits is initiated (Depending on set- ting of the parameter 11-2)										
		Switching difference of gene- rator	-30÷30	10					K	Х	Х	
2	10-1	Switch off difference between calculated setpoint value of the generator and its temperature TK. If temperature of the generator exceeds the calculated nominal temperature by the set value, the generator is turned off by the controller.										
1	10-4	Minimal protection tempera- ture TKmin	0÷80	0.0					°C	Х	Х	
		The set temperature is maintain	ed if boile	r is turr	ned on or if it	t is in prepa	redness.					
2	10-5	Increase of TKV referring to TKmin	0÷20	5					°C	Х	Х	
Z		Generator is turned on if boiler te by the set value.	mperature	e TKV s	sinks below r	ninimal boile	er protection	temperatur	e TKm	in incre	eased	

#### 1.6 11th level - Parameters of heat generator

					Basic s Date:	setting	Adaptions Date:				omfort		
de	rameter	Function	tting Ige	Factory setting					ity	expert	classic/c		
Co	Pa		Ser		1(green)	2 (red)	1(green)	2 (red)	υn	X = 2	ictive		
2	11-0	Deactivation mode of the generator	0÷1	0					-	Х	Х		
2	110	0 = no deactivation o the generator 1 = manual deactivation of the selected generator. Selected generator remains disabled.											
		Forced energy function	0÷3	3					-	Х	Х		
2	11-2	The generator can initiate forced energy function by influencing the charges: 0 = no forced function 1 = forced energy function with minimal boiler temperature TKmin 2 = forced energy function with maximal boiler temperature TKmax 3 = forced energy function with minimal TKmin and maximal TKmax boiler temperature											
		Cancel operating data	on÷off	off					-	Х	Х		
1       11-4       Operating data can be reset to "0".         off = standard       on = reset of operating dates to "0".         Note: After having set "on". programming level has to be changed or the cover to be closed. About 30 set setting returns automatically to "off".										econds	ater		
		Gen. Power controller	on÷off	off					-	Х	Х		
1	11-5	on = 2 stage burner off = 1 stage burner											

#### 1.7 12th level - Cascade management parameters (generators 1)

Code	Parameter	Function	Setting range	Factory setting	Basic setting Date:	Adaptions Date:	Unity	x expert	avitoria evitation evitatio evitation evitation evitation evitation evitation evitatio
		Gen. 1: eBUS address	11÷12	12			-	Х	Х
1	12-0	This parameter define if the gener 11 = extern burner controller via in 12 = one- ore two-stage burner	ator is a sta iterface ZIF	ge-burn 250	er or a modulated in	terface-controlled bu	irner		