

# Configuration of a heating multizone

Document number: PO-086-EN Version: 4.0 Date of publication: October 9, 2024

## Introduction

With the Ampio system, it is possible to control multiple heating zones in a building using a single touch panel. Such a function is called Multizone. The following tutorial will describe its configuration.

# Requirements

A full configuration must be carried out to enable the aforementioned functionality. A minimum of 2 modules (1 controlling heating zones and 1 touch panel) are also required.

# **Configuration in Ampio Designer**

### Setting up the heating zones

Select the zone control module (*M-RT-s* or *M-SERV-s* in the correct configuration). To set the heating zones, enter the control module's *SETTINGS*.

:	MAC	USER MAC 1	SYMBOL↑↓	SOFT ↑↓	NAME↑↓	LOCATI	ON 📬 🚦		CONFIG
	18DB8	1	M-SERV-s, PCB: 9	11628	home	garage	×	0	0

Then, in the Parameters sub-tab, select Temperature controller in the second column.

⑦ Temperature controller	
1	2
zonel	zone2
Options	Options

For a few more zones, you will enter the appropriate settings to make the zones active.

Temperature controller	1 ×
Zone initial state	
Heating	٥
Zone error state	
Deactivate heating	\$
Minimum temperature	Maximum temperature
5,0	30,0
Eco/Trip Temperature	Comfortable temperature
19,0	24,0
Sensor	Hysteresis
Device: 1 - home - Sensor:	1 - jedynk: 0,5 ^
LCD description	
descī	
desci	Paste from clipboard

After all changes have been made, press *Save* in the top right corner of the interface, and *Send parameters to the module* to save the new settings.

#### **Touch panel parameters**

In the next step, the Parameters for the M-DOT touch panel are set up. Navigate to the *LCD* option in the second column, open the tab *LCD content* and click on "Settings" for the selected screen. Select "Screen four icons" as the screen type and then set: as *ACTOR* the module in which the heating zones were configured, in the column *TYPE* option "Temperature controller," and for *NUMBER*, e.g. "Multizone 1", if the changes on the panel are to start from zone number 1.

LCD content 1								
		Scree	en type —					
Screen four icons							0	
		— Тор	icons —					
INACTIVE	COLOUR			COL	OUR	INACTI	/E	
Currently: 💥	o rgb(255,255,255			rgb(2	55,255,255	Currently:	-ờ́-	
ACTIVE	COLOUR			COL	OUR	ACTIVE	=	
Currently: 💥	e rgb(255,0,0)	ergb(255,0,0)		ergb(2	55,0,0)	Currently:	-ờ́-	
		Li	ine 1 —					
ACTOR	TYPE		N	UMBER		DESCRIPTION	N	
home	0 Temperature c	on 0	Multizo	ne 1.	¢ Ad	d description		
COLOUR	FOR THE AC	TIVE	PF	ECISION		UNIT		
orgb(255,255,25	5) 🛛 🔵 rgb(0, 255, (	😑 rgb(0, 255, 0)			C	Currently: Default		

Then confirm at the bottom of the page by *Confirm changes*. After the window closes, send the new settings via *Send parameters to the module*.

### **Logical conditions**

4 conditions will be created, 2 of which are used to change the zone number and another 2 to change the temperature settings in the respective zones. The conditions can be created in the *LOGIC* tab or in the *Conditions* sub-tab in the settings of the respective touch panel.

In the following screenshot, in the first condition pressing button number 2 increases the number of the zone to be set. The numbers of the zones to be modified can be added in the *OUTPUT NUMBERS* column.

								:1 ×						
main panel	0 Inputs & outp 0	🗄 🗄 📶 🖬 🖬 🖬 🖌 🔁 🖌	Simple 0 +	main pa	nel 0	Multizone	0		×	Basic	0	Increme 0	@	63
								:2 ×						Ď

The next condition from another button will decrease the zone number. A third condition will increase the temperature for the currently set zone when the subsequent button is pressed.

main panel	≎ Inputs & outp ≎	: Input < × ± ×	Simple ≎ →	main panel 🗘	Multizone 0	]	Basic	0 Increment0	⊘ ۞
									_

The last condition will reduce the temperature in the zone using the fourth button. In the advanced condition settings, you can also modify the maximum and minimum temperatures respectively, which can be changed from the buttons of the M-DOT panel.

	ampio		DEVICES LO		LICATION SETTINGS	_		8 (P) (P) Sav	
+Con	dition + Eve	nt (ā) 🛞 (Ē) (Ē)		$\overline{\mathbf{O}}$			Choose	location 🗘	Search all columns
	Choose device	≎ Choose types ≎			Choose device	Choose types 🔹			
#	TRIGGERS	OUTPUT TYPE	INPUT NUMBERS	FUNCTION	ACTOR	OUTPUT TYPE	OUTPUT NUMBER	5 FUNCTION	ТҮРЕ
				Mu	ıltizone (4) <mark>+</mark>	<b>v</b>			
	main panel	× Inputs & outputs 0		Simple ≎ →	main panel	× Multizone		Basic	CINCREMENT ZC
	main panel	× Inputs & outputs 0	input 🖌 🖌 🕂 X	Simple ≎ →	main panel	× Multizone		Basic	Decrement 0     Image: Comparison of the second s
	main panel	× Inputs & outputs 0		Simple ≎ →	main panel	× Multizone	: : 1 x : 2 x >	Basic	<ul> <li>↓ Increment z</li> <li>↓ LO</li> <li>↓</li> </ul>
	main panel	× Inputs & outputs 0		Simple ≎ →	main panel	× Multizone		Basic	<ul> <li>Decrement ↓</li> <li>Lo</li> </ul>

All four conditions created are sent to the device. Once the four conditions have been created, confirm them with the *Confirm* button and send them to the device's memory via the *Save* button.

From now on, the number of the controlled zone and the set temperature for the zones can be changed from one M-DOT display.

# **Configuration in Smart Home Configurator\***

\*from January 2024, the Smart Home Configurator software is no longer being developed. It is recommended to use it only in substantiated instances.

In order to enable the Multizone functionality, a full configuration needs to be performed. 2 modules are required to achieve this - one that controls heating zones and one touch panel.

First, select the module that controls the heating zones (*M-RT*-s or *M-SERV*-s in the right configuration).

File Decice Project Utilis Language  List of online. devices  Search food  Add  Add  Add  Add  Add  Add  Add	💏 A	mpio SmartH	ome device	configurator ver. 5.0.0.5317										-		×
Vour software is up to date       Remote Support - download         Search below:       Search for descriptions       Image: Colspan="2">Vour software is up to date       Remote Support - download         In       MAG       Image: Colspan="2">Vour software is up to date       Remote Support - download         In       MAG       Image: Colspan="2">Vour software is up to date       Remote Support - download         In       MAG       Image: Colspan="2">Vour software is up to date       Remote Support - download         In       MAG       Image: Colspan="2">Vour software is up to date       Remote Support - download         In       MAG       Image: Colspan="2">Vour software is up to date       Remote Support - download         In       MAG       Image: Colspan="2">Voir Software is up to date       Remote Support - download         In       MAG       Image: Colspan="2">Voir Software is up to date       Remote Support - download         In       MAG       MAG       Image: Colspan="2">Voir Software is up to date       Remote Support - download         In       MAG       MAG       Voir Software is up to date       Image: Colspan="2">Voir Software is up to date         In       MAG       MAG       Voir Software is up to date       Image: Colspan="2">Voir Software is up to date         In       MAG       MAG       MAG	File	Device Proj	ject Utils	Language												
Search before:         Search column:         Device name         No         Search for descriptions           On         MAC         Local         Type         Name         Pcb         Soft         Buffer:         Ullemp         Pps         Pro         Status           2         A078         A078         U068 M-DOT-M18         1         11509         4096 0% (0)         12.4V         0.8         23         8         6           Device granmeters         Image: Soft Soft Soft Soft Soft Soft Soft Soft	List o	f online devi	ces:								Your soft	ware is	up to date	Remote Support	ort - downlo	bad
On       MAC       Local       Type       Name       Pcb       Soft       Buffer       U/Temp       Pps       Pot.       Status         1       A08       1       0130.4/SERV.4MN.6 (192.168.77.80)       edfds       8       1       16324.0% (0)       2.2       2.3       3       5       0       Device monther         2       AD78       AD78       U068.M-DOT-M18       1       11509       4098.0% (0)       12.4V       0.8       2.3       8       5       0       Device gonfiguration       0	S	earch below:			Search column:	Device name	~	F 🔹 🔍	Search for descrip	tions						
1       A08       1       16384 0% (0)       2.2       23       2	On	MAC	Local	▲ Туре	Name		Pcb	Soft	Buffer	U/Temp	Pps	Prot.	Status			1
2       A078       U068 M-DOT-M18       1       11509       4986 0% (0)       12,4V       0,8       23       8       2       0	1	A08	1	U010 M-SERV-MINI-s (192.168.77.80)	sdfds		8	1	16384 0% (0)		2,2	23	128	۷		
Provide goringuration         Obvide goringuration <td>2</td> <td>AD7B</td> <td>AD7B</td> <td>U068 M-DOT-M18</td> <td></td> <td></td> <td>1</td> <td>11509</td> <td>4096 0% (0)</td> <td>12,4V</td> <td>0,8</td> <td>23</td> <td>8 🛠 🖌</td> <td>Device mo</td> <td>onitor</td> <td></td>	2	AD7B	AD7B	U068 M-DOT-M18			1	11509	4096 0% (0)	12,4V	0,8	23	8 🛠 🖌	Device mo	onitor	
VE: 250EF: 2215bit AB0IDVOM:017bbar 0.6% / Mar; 720/bar; 26:0%)																
Ueve ganguration         Oevice garaneters         ()         Uetwork monitor         Q         End devices    Debugger:         Ango Smat Home device         configurator ver. 5.0.0.5317         Interface recognized																
Cevice parameters														Device contri	guration	
Device parameters         ightwork monitor														Q.		
VE: 2 SOE: 221 Shi ABUIDYOM (0 17/bay 0.6% / May: 7.92/bay 26.0%)														Device para	meters	
														10.		
Cebugger       Amplo Spectra 21 Shi ABUIDYOM (0 17/bay 0.6%   May: 7.02/bay 26.0%)														<u>N</u> etwork m	ionitor	
														Q		
Ampio Smatthiome device configurator ver. 5.0.0.5317 Interface recognized														Find dev	rices	
Debugger:     Ampio SmartHome device     configurator ver. 5.0.0.5317     Interface recognized														_		
C Debugger: Ampo Smarthone device configurator ver. 5.0.0.5317 Interface recognized >																
Debugger Anpo Smarthome device configurator ver. 5.0.0.5317 Interface recognized																
Ampó Smarthone device configurator ver. 5.0.6.317 Interface recognized 186 DCB: 2.50ET: 221 SN: ABRIDY(M. (0.17)/box (0.6%) (May: 7.02)/box (26.0%)														Debugger:		
106 DCB: 2 SCHT: 221 SN: ABRIDY/M // 17/bar / 65%   May: 7 02/bar / 56%)	4												>	Ampio SmartHome configurator ver. Interface recogni	e device 5.0.0.5317 zed	
		1%	PCB: 2	SOFT: 321 SN: AB0JDYOM (0.17kbps 0.6%   Max	: 7 92kbps 26 9%)								-	L		

The heating zone parameters are now to be set in the *Device parameters* tab. If you wish to control the heating zones through touch panels. it is also advisable to add zone names in the *Description* field. At the end, send the settings to the device.

E Device parameters-MAC: 00000A08/LOC: 00000001 sdfds ver: 5.0.0.5317	- 🗆	×
OUT FLAGS MRT RTC		
1 zoneOne Default: Heating Auto V Safe mode: Activate heating V		^
Meas.: 00000101¦   OFFLINE  Sensor: 1  V		
Temperature: Min: 5,0         Max: 30,0         Eco: 19,0         Comf: 21,0         diesc: asda		
Reg: Two-state V Monitor:Temp 5et: 19,0 Meas.: 0,0 Work mode: Auto	-	
Histeresis: 0,5 °C Regulation error [W = Tset - Tmeas]: 12,7°C		
2 Description Default: Zone inactive V		
	_	
3 Description Default: Zone inactive V		
	- -	
4 Description Default: Zone inactive V		
		*
Load from device	Send to device	
	-	1
Load C Set default C Get names	Send	
MRT parameters sent correctly	0%	

#### Next, go to M-DOT's Device parameters.

As one of the displayed elements, set the chosen option related to the Multizone, e.g. *Temp. of Multizone controller*. The source should be set to the Ampio module, in which zone controls have been established. The value number is a default zone number.

Device parameters-MAC: 0000AD7B/LOC: 0000AD7B ver: 5.0.0.53     MDOT ELCD OUTPUTS FLAGS BIN F8 FLAGS LIN8     Content Troops Fonts	17 F16 FLAGS Lin 16	– 🗆 X
No 1       Three lines of content       Description         Line no. 1       Temp. of multizone controller       Image: Content in the control of the con	No 2 Inactive V Description No 3 Inactive	∨ Der
Line no. 2 Date and Time The colors: Background: 0 0 0 [RGB] 0 255 A small line: 255 255 255 [RGB] 0 255 A big line: 255 255 255 [RGB] 0 255 < C Default C Default S Get names	ave Names Pase Copy Pas	.te Send

The next step is to open the M-DOT's Device configurator.

Set up a condition linked to a selected button, which will be used to increment the zone's number (increase the current zone number).

The condition-MAC: 0000A	D7B/LOC: 0000AD7B	ver: 5.0.0.5317							×
The definition of ford	ing information. W	arning!!! in this	window, we only ma	irk what we	e want to respo	ond to.			
🕶 I/O 🤼 Screen/In.	📑 Start icon 📑 Ex	it icon 🙃 Multitoud	h 📘 Flags Bin F8 Fla	ags lin 8bit 🕴	6 Flags lin 16bit	DS18B20	Features		
Coreen number:									
Screen number.	Current screen n	umber: 1							
	1.			$\sim$			Turn of an dilana		
Touch fields:		1	ir i				Basic function		~
	1	2	3						
	Act	Act	Act						
	4	5	6						
	Act	Act	Act						
	10	11	12						
	Act	Act	Act						
	13	14	15				L		
	Act	Act	Act						
	16	17	18						
	Act	Act	Act						
							Cet names		
	>						Jet hames	<b>V</b>	×
							Save Names	Accept	Close

The condition's function will be changing the zone's number (*Increment zone number*). It is necessary to provide the number of the display row, in which the Multizone has been set (see: Device parameters). You can choose the zones between which you want to switch over (the *Switched zones mask* table) and set the time for returning to the default zone.

Device reaction-MAC: 0000AD7B/LOC: 0000AD7B ver: 5.0.0.5317	×
Definition of module working mode:	
📑 Outputs 🛃 Icons 👸 Blockade 🜗 Buzzer 🎔 Highlight 😍 Statuses 🖓 Brightness 👻 LCD 📘 Binary flags F Lin. 8bit flags F16 Lin. 16bit flags 📩	Events
Pick display function:	
Multizone temperature control $\checkmark$	
Pick display function: Display row number:	
(+) Increment zone number $\sim$ 1 $\sim$	
Time for returning to default zone (0 - 255s   0-no auto return):	
0 No auto return	
Switched zones mask:	
>1     ✓     2     ✓     3     ✓     4     5     6     7     8	
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	
L	
Get names Save Names Accept X Close	

Then, create another condition to a different M-DOT button and set its reaction to *Decrement zone number*. This setting will change the set temperature in the current zone. In the condition's function, select *Increment zone temperature*, set the limit and increment value.

evice reaction-MAC: 0000AD7B/LOC: 0000AD7B ver: 5.0.0.5317					>
🖚 Outputs 🎴 Icons 🕘 Blockade 🌗 Buzzer 🥮 Highlight	🌒 Statuses 🎧 Brightness 🎈 L	.CD 📘 Binary flags	8 Lin. 8bit flags	Lin. 16bit flags 📩	Events
Pick display function: Multizone temperature control					
Pick display function:	Display row number:				
Temperature increment (0.1 - 25.5)°C:	· ·				
Temperature change limit (-99.9 - 140.0)°C:					
	🔀 Get names	🚺 Save Names	🗸 Accept	X Close	

The last condition assigned to the fourth button will be *Decrement zone temperature*. All four created conditions can now be sent to the device.

After all the steps described above are completed, you will be able to change the controlled zone number and the set temperature for heating zones in one place - on the M-DOT's screen.