

**TECHNICAL DOCUMENTATION** 

## **FEATURES**

- Up to four blocks to control 2-pipe fan coil units
- Manual output operation with push button and LED status indicator
- 20 logic functions
- Output timing
- Total data saving on KNX bus failure
- Integrated KNX BCU (TP1-256)
- Size 67 x 90 x 140 mm (8 DIN units)
- DIN rail mounting according to IEC 60715 TH35, with fixing clamp
- · Possibility of connecting different phases in adjacent outputs
- Conformity with the CE, UKCA, RCM directives (marks on the right side)

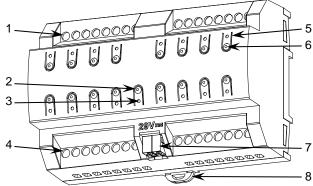


Figure 1: MAXinBOX FANCOIL 4CH2P v2

Upper outputs	<ol><li>Programming/Test button</li></ol>	<ol><li>Programming/Test LED</li></ol>	<ol><li>Lower outputs</li></ol>
5. Output status LED indicator	<ol><li>Output control button</li></ol>	7. KNX connector	8. Fixing clamp

Programming/Test button: short press to set programming mode. If this button is held while plugging the device into the KNX bus, it enters the safe mode. If this button is held for more than 3 seconds, the device enters the test mode.

Programming/Test LED: programming mode indicator (red). When the device enters the safe mode, it blinks (red) every half second. The manual mode is indicated by the green color. During the start-up (reset or after KNX bus failure) and if the device is not in safe mode, it starts a blue blinking sequence.

GENERAL SPECIFICATIONS						
CONCEPT		DESCRIPTION				
Type of device		Electric operation control devi	Electric operation control device			
Voltage (typical)		29 VDC SELV				
KNX supply	Voltage range		21-31 VDC	21-31 VDC		
	Maximum consumption	Voltage	mA	mW		
		29 VDC (typical)	4.05	117.45		
		24 VDC <sup>1</sup>	10	240		
	Connection type		Typical TP1 bus connector for	Typical TP1 bus connector for 0.8 mm Ø rigid cable		
External power			Not required	Not required		
Operation temperature		0 +55 °C	0 +55 °C			
Storage temperature		-20 +55 °C	-20 +55 °C			
Operation humidity		5 95%	5 95%			
Storage humidity		5 95%				
Complementary characteristics		Class B	Class B			
Protection class / Overvoltage category			II / III (4000 V)			
Operation type		•	Continuous operation			
Device action type		Type 1				
Electrical stress period		Long				
Degree of protection / Pollution degree		IP20 / 2 (clean environment)				
Installation			Independent device to be mounted inside electrical panels with DIN rail (IEC			
		60715)				
Minimum clearances		Not required				
	Response on KNX bus failure		Data saving according to parameterization			
Response on KNX bus restart		Data recovery according to parameterization				
Operation indicator		The programming LED indicates programming mode (red) and test mode (green). Each output LED indicates its status				
Weight		451 g				
PCB CTI index		175 V				
Housing mate	Housing material / Ball pressure test temperature		PC FR V0 halogen free / 75 °C	PC FR V0 halogen free / 75 °C (housing) - 125 °C (connectors)		

<sup>&</sup>lt;sup>1</sup> Maximum consumption in the worst-case scenario (KNX Fan-In model).

OUTPUTS SPECIFICATIONS AND CONNECTIONS				
CONCEPT		DESCRIPTION		
Number of fan coil blocks		4		
Output type / Disconnection type		Potential-free outputs through bistable relays / Micro-disconnection		
Rated current per output		AC 8(4) A @ 250 VAC (2000 VA) DC 5 A @ 30 VDC (150 W)		
Maximum load per output	Resistive	2000 W		
	Inductive	1000 VA		
Different phases connection		Possibility of connecting different phases. It is not allowed to connect power supplies of different order, SELV with NO SELV, in the same block		
Maximum current per block		8 A		
Short-circuit protection		NO		
Overload protection		NO		
Connection method		Screw terminal block (0.5 Nm max.)		
Cable cross-section		1.5-4 mm² (IEC) / 26-10 AWG (UL)		
Outputs per common		3/1 (per fan/per valve)		
Maximum response time		15 ms		
Mechanical lifetime (min. cycles)		3 000 000		

## **WIRING DIAGRAMS**

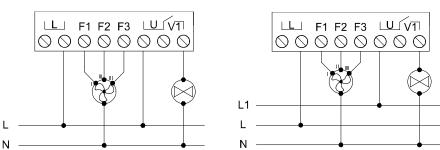
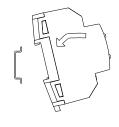
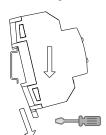


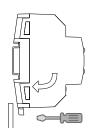
Figure 2: One-valve fan coil wiring example (from left to right): single phase and different phases connection

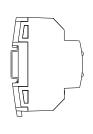
⚠ In order to ensure the expected status of the relays, please check that the device is connected to the KNX bus before energizing the power circuit.

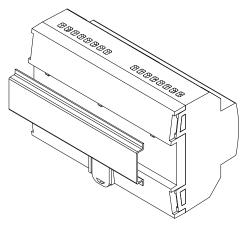




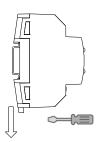


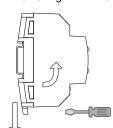














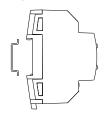


Figure 3: Mounting MAXinBOX FANCOIL 4CH2P v2 on DIN rail

## SAFETY INSTRUCTIONS AND ADDITIONAL NOTES

- Installation should only be performed by qualified professionals according to the laws and regulations applicable in each country.
- Do not connect the mains voltage nor any other external voltage to any point of the KNX bus; it would represent a risk for the entire KNX system. The facility must have enough insulation between the mains (or auxiliary) voltage and the KNX bus or the wires of other accessories, in case of being installed.
- Once the device is installed (in the panel or box), it must not be accessible from outside.
- Keep the device away from water (condensation over the device included) and do not cover it with clothes, paper or any other material while in use.
- The WEEE logo means that this device contains electronic parts and it must be properly disposed of by following the instructions at <a href="https://www.zennio.com/en/legal/weee-regulation">https://www.zennio.com/en/legal/weee-regulation</a>.
- This device contains software subject to specific licences. For details, please refer to http://zennio.com/licenses.