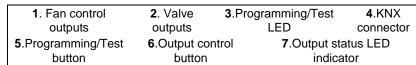


# Fan coil controller for 2-pipe fan coil units – 2 channels ZCL-2XFC2P

### **Technical Documentation**

### **FEATURES**

- Up to two blocks to control 2-pipe fan coil units.
- Manual output operation with push button and LED status indicator.
- Logical functions included.
- Output timing facilities.
- Total data saving on power failure.
- Size 90 x 67 x 80 mm (4.5 DIN units).
- DIN rail unit assembly (EN 50022), with snap fit clamp.
- No external power supply required other than the bus.
- KNX BCU integrated.
- Possibility to connect different phases.
- CE directives compliant.



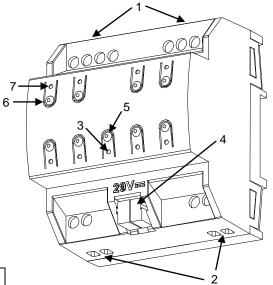


Figure 1. MAXinBOX FANCOIL 2CH2P

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

**LED:** programming mode indicator (red). When the device goes into safe mode, it blinks (red) every half second. It lights in green when the device is in manual mode. During start up (after reset or power failure), if the device is not in safe mode, programming LED blinks in blue for a few seconds.

GENERAL SYSTEM SPECIFICATIONS CONCEPT			DESCRIPTION		
Type of device			Electric operation control device		
. , , , , , , , , , , , , , , , , , , ,	Voltage (typical)		29VDC SELV		
KNX supply	Voltage range		2131V DC		
	Maximum consumption	Voltage	mA	mW	
		29VDC (typical)	5.8	168.2	
		24VDC <sup>(1)</sup>	10	240	
	Bus connection		Typical bus connector TP1, 0.50 mm² section		
External power supply			No		
Ambient temperature			from 0°C to +55°C		
Storage temperature			from -20°C to +70°C		
Ambient humidity			5 to 95% RH (no condensation)		
Storage humidity (relative)			5 to 95% RH (no condensation)		
Complementary characteristics			Class B		
Safety class			II		
Operation type			Continuous operation		
Device action type			Type 1		
Electrical solicitations period			Long		
Type of protection			IP20, clean environment		
Assembly			Independent control assembly device to be mounted inside of electrical panels with DIN rail (EN 50022).		
KNX bus failure response			Data saving and output status change according to parameterization.		
Response when restarting KNX bus			Data recovering and output status change according to parameterization.		
Operation indication			Programming LED indicates programming mode (red) and test mode (green).  Output status LED indicators reflect current output state.		
Weight			235gr.		
PCB CTI index			175 V		
Enclosure			PC FR V0 halogen free		

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

OUTPUTS SPECIFICATIONS AND CONNECTIONS					
Contact type		Potential free outputs through bistable relays.			
Disconnection type		Micro-disconnection			
Rated current by output		∼8A (4A) * 250V AC (2000 VA)			
Kaled current by outpo	IL .	<b>30</b> 8A (4A) * 30V DC (240W)			
Outputs per common		3 (fan outputs) or 1 (valve outputs)			
Different phases conne	ection	Possibility to connect different phases in different fan coil channels			
Maximum power	Resistive load	2000W			
waxiiiiuiii powei	Inductive load	1000VA			
Connection type		Terminal block (screw)			
Recommended cable s	section	0.15 mm <sup>2</sup> to 4 mm <sup>2</sup> (26-10AWG)			
Cable type		Stranded or solid wire.			
Maximum response tin	ne	50 ms			
Evacated life	Mechanical	1 million operations (180cpm)			
Expected life	Electrical	50.000 cycles (6cpm / resistive load)			

### WIRING AND ASSEMBLY DIAGRAMS

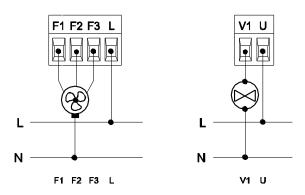
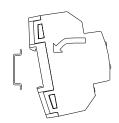
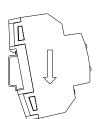
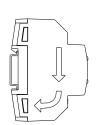


Figure 2. 2-pipe fan coil wiring example with 3-speed fan.

# Attaching MAXinBOX FANCOIL 2CH2P to DIN rail:

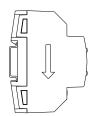


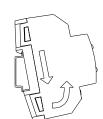




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# Removing MAXinBOX FANCOIL 2CH2P from DIN rail:





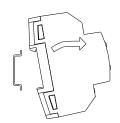


Figure 3. MAXinBOX FANCOIL 2CH2P DIN-rail assembly



## **SAFETY INSTRUCTIONS**

- Installation should only be performed by qualified electricians following applicable regulations on preventing accidents, as required by law
- Do not connect Mains Voltage (230 V) or any other external voltages to any point of the bus. Connecting an external voltage might put the entire KNX system at risk.



- Make sure during the installation that there is always sufficient insulation between the mains voltage 230V and the bus or the extension inputs.
- Once the device is installed, the output terminal should not be accessible.
- The WEEE logo means that this device contains electronic parts and it must be discarded properly following the instructions of http://zennio.com/weee-regulation.