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 79 mm (4.5 DIN units).
- DIN rail mounting (EN 50022), through pressure.
- No external power supply required other than the bus.
- Integrated KNX BCU.
- Possibility to connect different phases.
- Conformity with the CE directives (CE-mark on the right side).

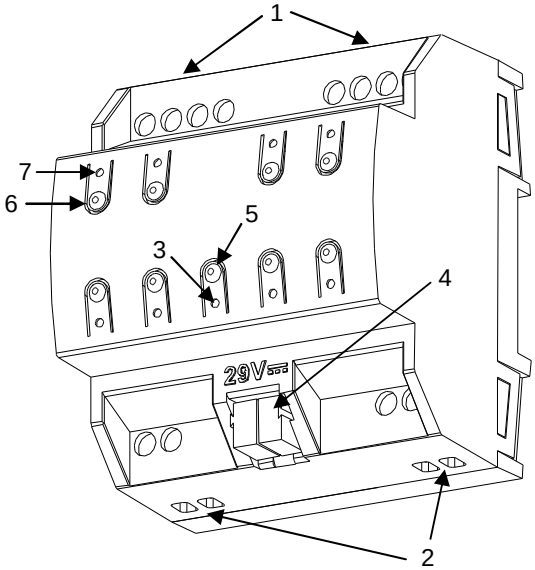


Figure 1. MAXinBOX FANCOIL 2CH2P

1. Fan control outputs	**2**. Valve outputs	**3**.Programming/Test LED	**4**.KNX connector
5.Programming/Test button	**6**.Output control button	**7**.Output status LED indicator	

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.

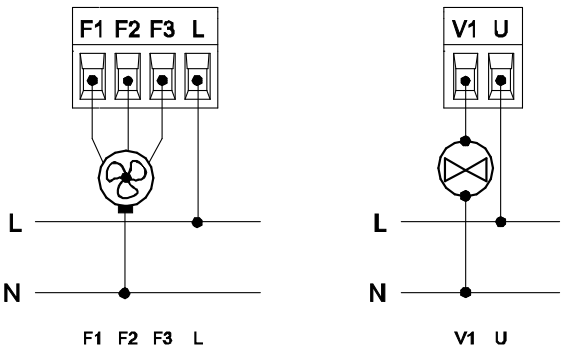
Programming/Test LED: programming mode indicator (red). When the device enters into safe mode, it blinks (red) every half second. The manual mode is indicated by the green color. During the start-up (reset or after KNX bus failure) and if the device is not in safe mode, it starts a blue blinking sequence.

GENERAL SYSTEM SPECIFICATIONS				
CONCEPT			**DESCRIPTION**	
Type of device			Electric operation control device	
KNX supply	Voltage (typical)		29VDC SELV	
	Voltage range		21…31V DC	
	Maximum consumption	Voltage	mA	mW
		29VDC (typical)	5.8	168.2
		24VDC[1]	10	240
	Bus connection		Typical bus connector TP1 for rigid cable 0.80mm Ø	
External power supply			No	
Operation temperature			from 0ºC to +55ºC	
Storage temperature			from -20ºC to +70ºC	
Operation humidity			5 to 95% RH (no condensation)	
Storage humidity			5 to 95% RH (no condensation)	
Complementary characteristics			Class B	
Protection class			II	
Operation type			Continuous operation	
Device action type			Type 1	
Electrical stress period			Long	
Degree of protection			IP20, clean environment	
Installation			Independent device to be mounted inside 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			235g	
PCB CTI index			175V	
Enclosure			PC FR V0 halogen free	

[1] 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) ⎓8A (4A) * 30V DC (240W)
Outputs per common		3 (fan outputs) or 1 (valve outputs)
Different phases connection		Possibility to connect different phases in different fan coil channels
Maximum power	Resistive load	2000W
	Inductive load	1000VA
Connection type		Screw terminal block
Recommended cable section		0.5mm² to 4mm² (26-10AWG)
Cable type		Stranded or solid wire.
Maximum response time		50ms
Expected life	Mechanical (min.)	1 million operations (180cpm)
	Electrical (min.)	50.000 cycles (6cpm / resistive load)

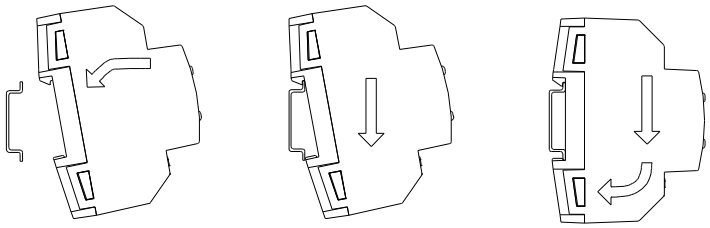
WIRING AND ASSEMBLY DIAGRAMS



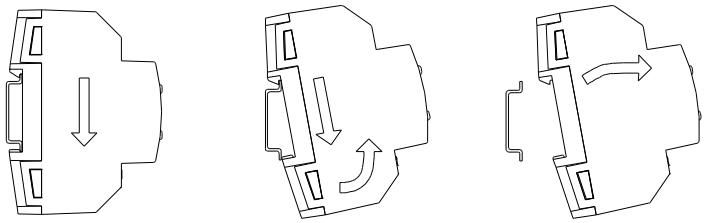
⚠ In order to ensure the expected status of the relays, please check that the device is connected to the KNX bus before energizing the power circuit.

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

Attaching MAXinBOX FANCOIL 2CH2P to DIN rail:



Removing MAXinBOX FANCOIL 2CH2P from DIN rail:



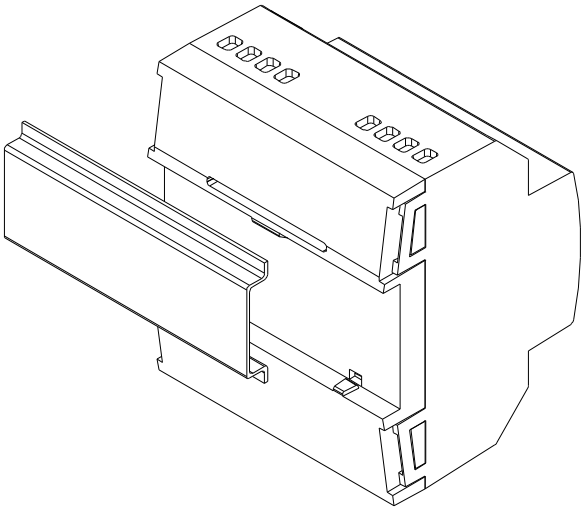


Figure 3. MAXinBOX FANCOIL 2CH2P DIN-rail assembly

⚠ SAFETY INSTRUCTIONS

- 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 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 http://zennio.com/weee-regulation.