**4 channel two pipes fan coil controller**

**ZCL-4XFC2P**

**Technical Documentation**

## FEATURES

- Up to four 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 60 x 140 mm (8 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 in adjoining outputs.
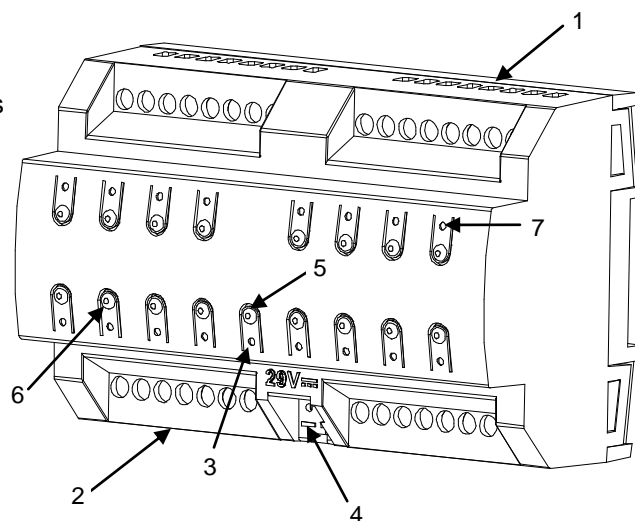- CE directives compliant.



*Figure 1. MAXinBOX FANCOIL 4CH2P*

| **1**. Upper outputs | **2**. Lower 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 button press to set the 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 | |
| KNX Supply | Voltage (typical) | | 29VDC SELV | |
| | Voltage range | | 21…31V DC | |
| | Maximum consumption | Voltage | mA | mW |
| | | 29VDC (typical) | 11.5 | 333 |
| | | 24VDC[1] | 12.5 | 300 |
| | Bus connection | | Typical bus connector TP1, 0.50 mm² section | |
| External power supply | | | No | |
| Ambient temperature | | | from 0ºC to +55ºC | |
| Storage temperature | | | from -20ºC to +70ºC | |
| 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 programming. | |
| Response when restarting KNX bus | | | Data recovering and output status change according to programming. | |
| Operation indication | | | Programming LED indicates programming mode (red) and test mode (green). Output status LED indicators reflect current output state. | |
| Weight | | | 440gr. | |
| PCB CTI index | | | 175 V | |
| Enclosure | | | PC FR V0 halogen free | |

[1] Maximum consumption in the worst case scenario (KNX Fan-In model)

**Technical Documentation**

## 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 (pipe outputs) | |
| Different phases connection | Possibility to connect different phases in adjoining channel outputs | |
| Maximum current | 32A per block | |
| Maximum power | Resistive load | 2000W |
| | Inductive load | 1000VA |
| Connection type | Terminal block (screw) | |
| Recommended cable section | 0.15 mm² to 4 mm² (26-10AWG) | |
| Cable type | Stranded or solid wire. | |
| Maximum response time | 50 ms | |
| Expected life | Mechanical | 1 million operations (180cpm) |
| | Electrical | 50.000 cycles (6cpm/ resistive load) |

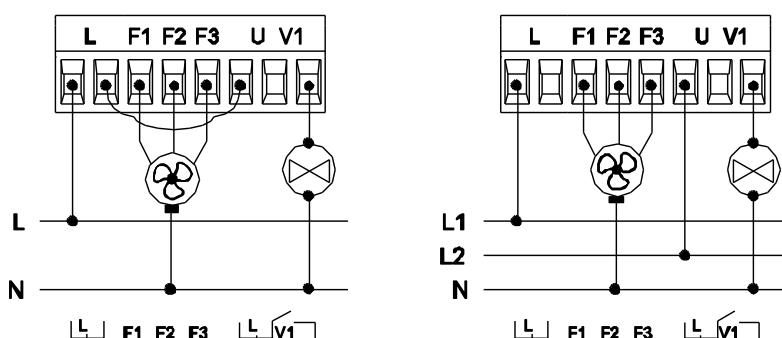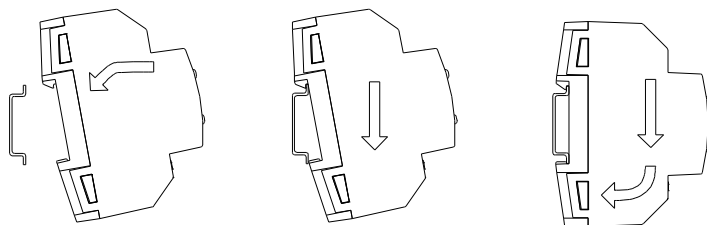## WIRING AND ASSEMBLY DIAGRAMS



*Figure 2. FAN COIL wiring examples with the same and with different phases*

**Attaching MAXinBOX FANCOIL 4CH2P to DIN rail:**
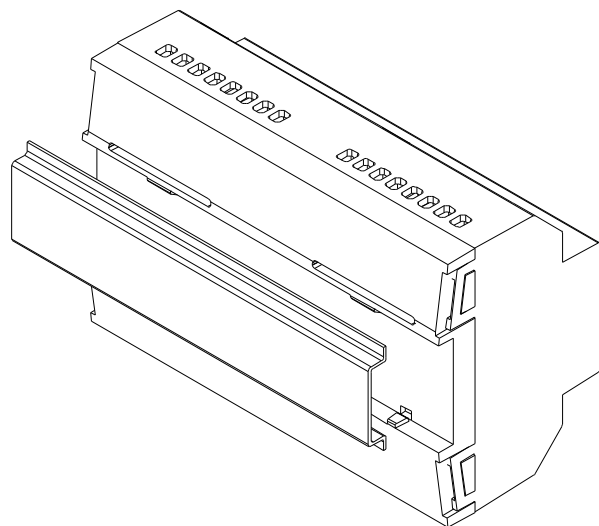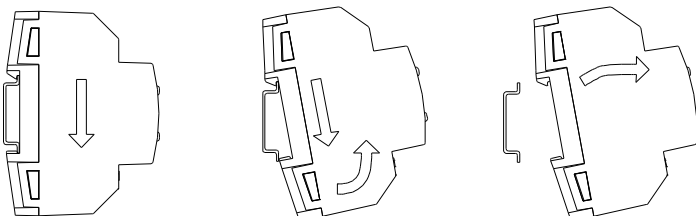


**Removing MAXinBOX FANCOIL 4CH2P from DIN rail:**





*Figure 3.* **MAXinBOX FANCOIL 4CH2P** *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.

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