

FEATURES

- 4 outputs configurable as:
 - 2 shutter channels.
 - 4 individual outputs*.
 - 1 fan coil controller (2-pipes).
- *Suitable for capacitive loads, maximum **140 µF**.
- Manual output operation with push button and LED status indicator.
- Logical functions included.
- Output timing facilities.
- Total data saving on power failure.
- Size 67 x 90 x 35mm (2 DIN units).
- KNX BCU integrated.
- DIN rail unit assembly (EN 50022), with snap fit clamp.
- Possibility to connect different phases in adjoining outputs.
- CE directives compliant.

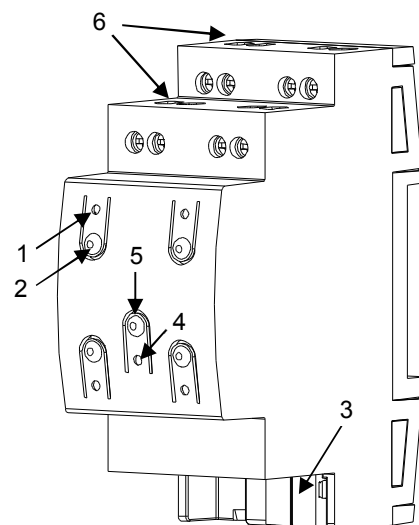


Figure 1. MINIBOX QUATRO

1. Output status LED indicator

2. Output control button

3. KNX connector

4. Programming/Test LED

5. Programming/Test button

6. Outputs

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 manual mode (test mode).

LED: programming mode indicator (red). When the device goes into safe mode, it blinks (red) every half second. The manual mode is indicated by the green color. During start up (after reset or power failure) and if the device is not in safe mode, LEDs indicators blink 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...31VDC		
	Maximum consumption	Voltage	mA		mW
		29VDC (typical)	7.5		217.5
		24VDC ⁽¹⁾	10		240
Bus connection		Typical bus connector TP1, 0.80mm ² section			
External power supply			No		
Ambient temperature			from 0°C to +55°C		
Storage temperature			from -20°C to +55°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		
Degree of protection			IP20, clean environment		
Assembly			Independent control assembly device to be mounted inside of electrical panels with DIN rail (EN 50022).		
Minimum clearances			Not required		
KNX bus failure response			Data saving and relays action 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			141g		
PCB CTI index			175V		
Housing material			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 with tungsten pre-contact.
Disconnection type		Micro-disconnection
Rated current by output		\sim 16(6)A * 250VAC (4000VA) --- 16(6)A * 30VDC (480W)
Maximum power per output	Resistive	4000W
	Inductive	1500W
Maximum inrush current		800A/200 μ s (fluorescent lamps) 165A/20ms (resistive lamps)
Number of outputs		4 outputs
Outputs per common (Channel)		1 individual output
Total maximum current in device		40A
Connection type		Terminal block (screw)
Recommended cable section		0.5mm ² to 4mm ² (20-12 AWG)
Cable type		Stranded or solid wire.
Maximum response time		50ms
Expected life	Mechanical (min)	3 million operations (60cpm)
	Electrical (min.)	100.000 cycles at max. current (6cpm and resistive load)

WIRING AND ASSEMBLY DIAGRAMS

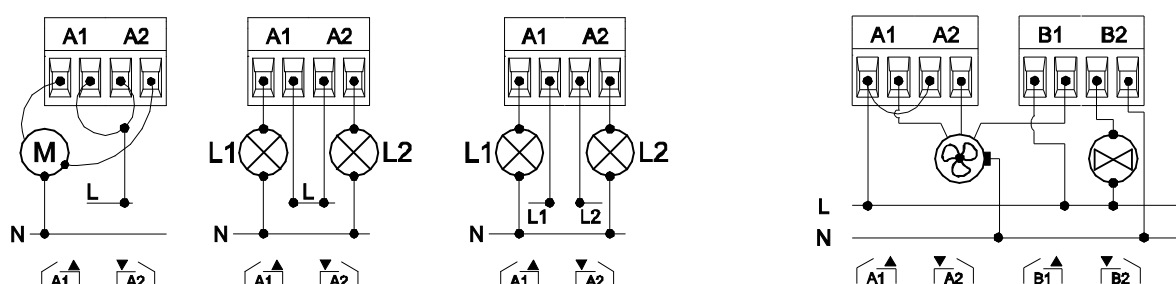
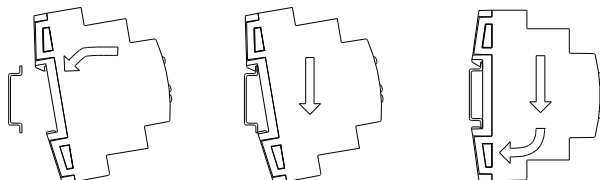


Figure 2: Wiring examples (from left to right): channel A as shutter channel, individual outputs in channel A with the same and different phases and channel A and B as fan coil controller (2 pipe and three-speed fan).

Attaching MINiBOX QUATRO to DIN rail:



Removing MINiBOX QUATRO from DIN rail:

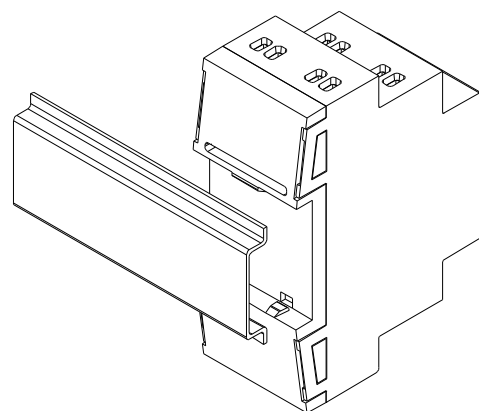
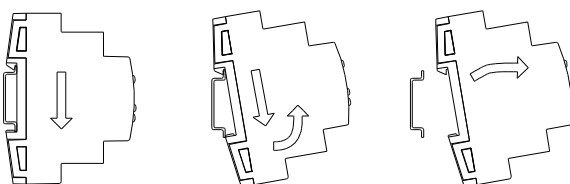


Figure 3: Assembly of MINiBOX QUATRO in DIN rail



SAFETY INSTRUCTIONS

- Installation should only be performed by qualified electricians following applicable regulations on preventing accidents, as required by law
- Do not connect Main Voltage (230VAC) 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 230VAC and the bus or the extension inputs.
- Once the device is installed, it must not be accessible from the outside.
- Keep away from water and do not cover the device with clothes, paper or any other material when in use.
- 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>.

