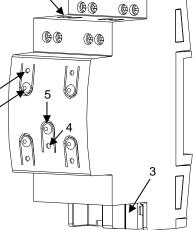## FEATURES

- 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).
- Integrated KNX BCU.
- DIN rail mounting (EN 50022), through pressure.
- Possibility to connect different phases in adjoining outputs.
- Conformity with the CE directives. (CE-mark on the right side)

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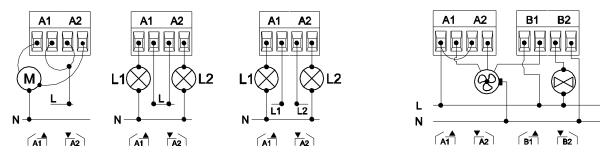
Programming/Test LED: programming mode indicator (red). When the device enters into safe mode, it blinks (red) every half second. The manual mode is indicated by the green color. During the start-up (reset or after KNX bus failure) and if the device is not in safe mode, it starts a blue blinking sequence.

GENERAL SYSTEM SPECIFICATIONS

CONCEPT			DESCRIPTION		
Type of device			Electric operation control device		
KNX supply	Voltage (typical)		29VDC SELV		
	Voltage range		21…31VDC		
	Maximum consumption	Voltage	mA		mW
		29VDC (typical)	7.5		217.5
		24VDC[1]	10		240
	Bus connection		Typical bus connector TP1 for rigid cable 0.80mm Ø		
External power supply			No		
Ambient temperature			from 0ºC to +55ºC		
Storage temperature			from -20ºC to +55ºC		
Ambient humidity			5 to 95% RH (no condensation)		
Storage humidity (relative)			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)		
Minimum clearances			Not required		
Response on KNX bus failure			Data saving and relays action according to parameterization.		
Response on KNX bus restart			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

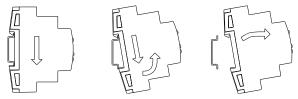|		
Contact type		Potential free outputs through bistable relays with tungsten pre-contact.
Disconnection type		Micro-disconnection
Rated current by output		∿ 16(6)A * 250VAC (4000VA) ⎓ 16(6)A * 30VDC (480W)
Maximum power per output	Resistive	4000W
	Inductive	1500W
Maximum inrush current		800A/200µs (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		Screw terminal block
Recommended cable section		0.5mm² to 2.5mm² (24-12 AWG)
Cable type		Stranded or solid wire.
Maximum response time		50ms
Lifetime	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).

⚠ 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.

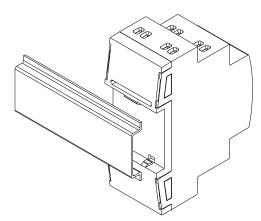**Attaching MINiBOX QUATRO to DIN rail:**

Removing MINiBOX QUATRO from DIN rail:

Figure 3: Assembly of MINiBOX QUATRO in DIN rail

⚠ SAFETY INSTRUCTIONS

- Installation should only be performed by qualified 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.