

FEATURES

- 2 outputs configurable as:
 - 1 shutter channels.
 - 2 individual outputs*.
- *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 KNX bus failure.
- Dimensions 67 x 90 x 35mm (2 DIN units).
- Integrated KNX BCU.
- DIN rail unit assembly (EN 50022), through pressure.
- Possibility to connect different phases in adjoining outputs.
- Conformity with the CE directives (CE-mark on the right side).

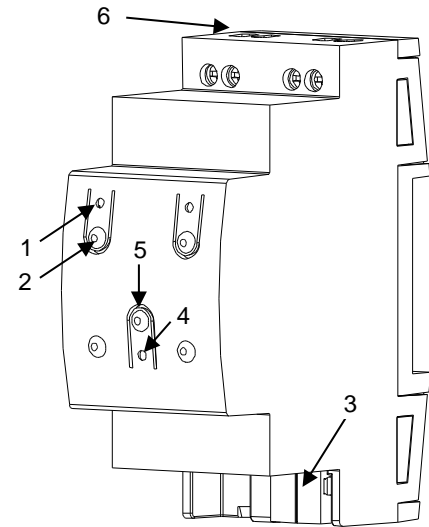


Figure 1. MINiBOX 20

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 enters into safe mode. If this button is held more than 3 seconds, the device enters into 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 start-up (reset or KNX bus failure) and if the device is not in safe mode, it makes a blue flashing for a few seconds.

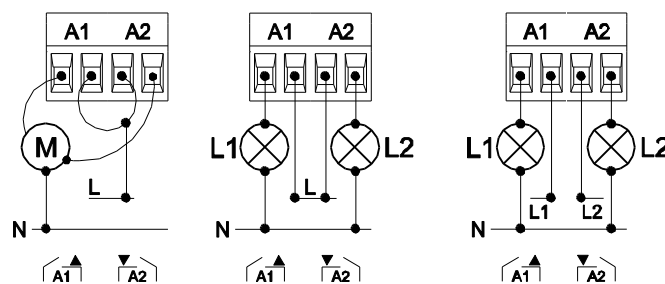
GENERAL SPECIFICATIONS

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)	5.6	162.4
24VDC ⁽¹⁾	10	240		
Connection type		Typical bus connector TP1 for rigid cable 0.80mm Ø		
External power supply		Not required		
Operation temperature		from 0°C to +55°C		
Storage temperature		from -20°C to +55°C		
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 control assembly device to be mounted inside of 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 recovery and relays action according to parameterization.		
Operation indication		Programming LED indicates programming mode (red) and test mode (green). Each output LED indicates its status		
Weight		98g		
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	2 outputs	
Outputs per common (Channel)	1 individual output	
Total maximum current in device	20A	
Connection type	Screw terminal block	
Recommended cable section	0.5mm ² to 2.5mm ² (24-12 AWG)	
Maximum response time	50ms	
Lifetime	Mechanical (min)	3 million cycles (60cpm)
	Electrical (min.)	100.000 cycles at max. current (6cpm and resistive load)

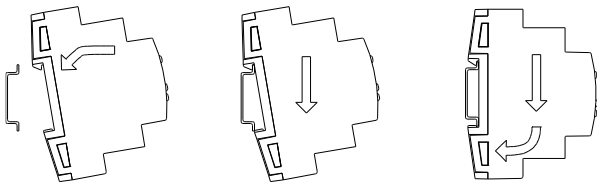
WIRING AND ASSEMBLY DIAGRAMS



⚠ 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: Wiring examples (from left to right): channel A as shutter channel and individual outputs in channel A with the same and different phases.

Attaching MINiBOX 20 to DIN rail:



Removing MINiBOX 20 from DIN rail:

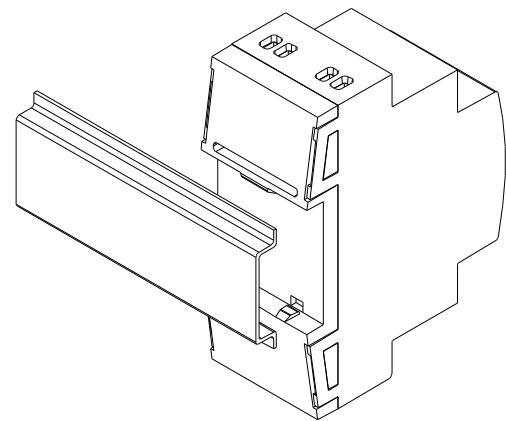
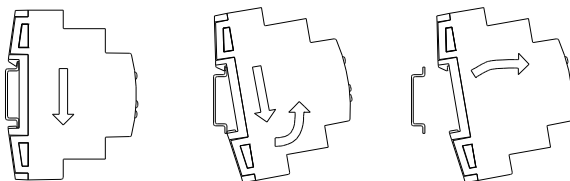


Figure 3: Mounting MINiBOX 20 on a DIN rail

⚠ 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>.

