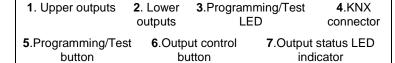


MAXinBOX 16. Multi-Function Actuator 16 outputs 16A ZN1IO-MB16

Technical Documentation

FEATURES

- 8 different channels:
 - Shutter channels (up to 8).
 - Individual outputs (up to 16).
- Manual output operation with push button and LED status indicator.
- Suitable for capacitive loads, maximum 140 μF.
- 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.
- CE directives compliant.



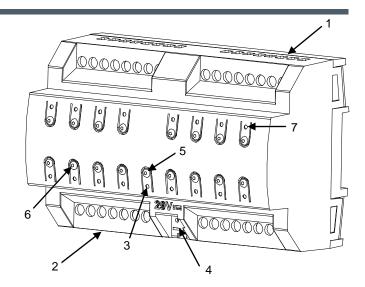


Figure 1. MAXinBOX 16

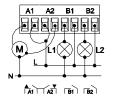
Programming/test button: short button press to set programming mode. If this button is held while plugging the device into the KNX bus, it goes into safe mode. If this button is held more than 3 seconds, the device goes into manual mode (test mode).

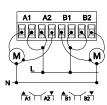
LED: programming mode indicator (red). When the device goes into safe mode, it blinks (red) every half second. It lights in green when the device is in manual mode. During start up (after reset or power failure), if the device is not in safe mode, programming LED blinks in blue for a few seconds.

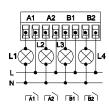
GENERAL SYSTEM SPECIFICATIONS CONCEPT		DESCRIPTION
Type of device		Electric operation control device
KNX supply	Voltage	29V DC SELV
	Voltage range	2131V DC
	Power consumption	200mW (max)
	Bus connection	Typical bus connector TP1, 0.50 mm² section
External power supply		No
Ambient temperature		0°C to +55°C
Storage temperature		-20°C to +70°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
Type of protection		IP20, clean environment
Assembly		Independent control assembly device to be mounted inside of electrical panels with DIN rail (EN 50022).
Minimum clearances		
Power failure response		Data saving and relays open if channel configured as a shutter channel.
Response when restarting		Data recovering and output status change according to programming when recovering.
Operation indication		Programming LED indicates programming mode (red) and test mode (green). Output status LED indicators reflect current output state.
Weight		500 gr.
PCB CTI index		175 V
Enclosure		PC FR V0 halogen free

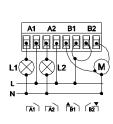
OUTPUTS SPECIFICATIONS AND CONNECTIONS				
Contact type		Potential Free outputs through bistable relays with tungsten pre-contact.		
Disconnection type		Micro-disconnection		
Rated current by output		∼16(6)A * 250V AC (4000 VA)		
Maximum inrush current		800A/200µs (inductive load) 165A/20ms (resistive load)		
Outputs per common (channel)		1 individual output		
Different phases connection		Possibility to connect different phases in adjoining blocks (see figure 3)		
Maximum current per block		40A per block		
Maximum power	Resistive load	4000W		
Maximum power	Inductive load	1500W		
Connection Type		Terminal block (screw)		
Recommended Cable Section		0.25 mm² a 4 mm²		
Cable Type		Stranded or solid wire		
Response Time		50ms		
Even a stand life	Mechanical	3 million operations (60cpm)		
Expected life	Electrical	100.000 cycles (6cpm and resistive load)		

WIRING AND ASSEMBLY DIAGRAMS









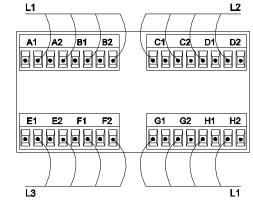
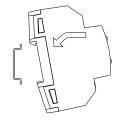
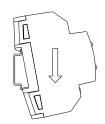


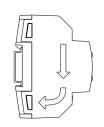
Figure 2. Terminal block 1, wiring examples

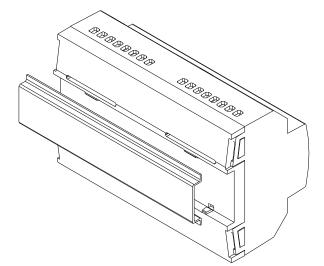
Figure 3. Possibility to connect different phases

Attaching MAXinBOX 16 to DIN rail:

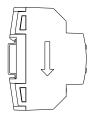


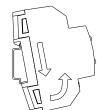












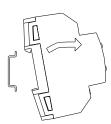


Figure 4. Installation of MAXinBOX 16 on DIN rail

SAFETY INSTRUCTIONS



- Installation should only be performed by qualified electricians following applicable regulations on preventing accidents, as required by law
- Do not connect 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.

