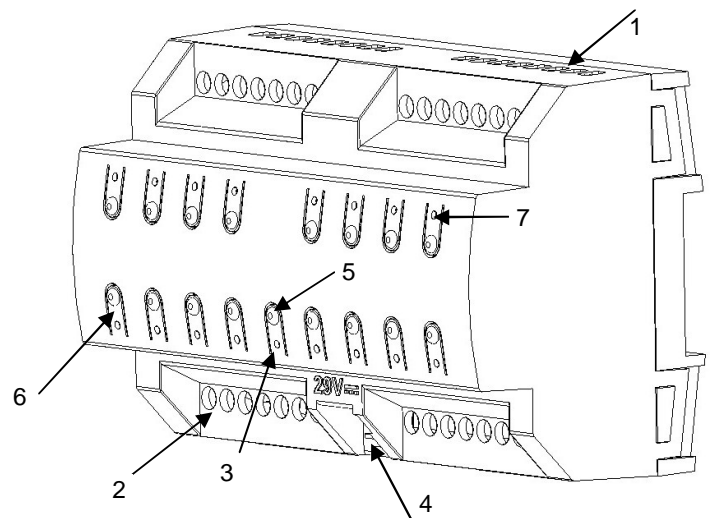


## FEATURES

- DIN rail unit assembly (EN 50022), with snap fit clamp.
- Size 90 x 60 x 140 mm (8 DIN units).
- No external power supply required other than the Bus.
- KNX BCU integrated.
- 8 different channels:
  - Shutter channels (up to 8)
  - Individual outputs (up to 16).
- Manual output operation with push button and LED status indicator.
- Logical functions included.
- Output timing facilities.
- Total data saving on power failure.
- Suitable for capacitive loads, maximum **140 µF**.
- CE directives compliant.



**Figure 1. MAXinBOX16**

**Programming/test button:** a push button to set the programming mode. If this button is held while plugging the device into the KNX bus, it goes into secure 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 secure mode, it blinks (red) every half second. The manual mode is indicated by the colour green. During start up (after reset or power failure) and if the device is not in secure mode, LEDs indicators blink blue for a few seconds

<b>1.</b> Upper outputs	<b>2.</b> Lower outputs	<b>3.</b> Programming /test LED	<b>4.</b> KNX Connection
<b>5.</b> Programming /test button	<b>6.</b> Output control button	<b>7.</b> Output status LED indicator	

## GENERAL SYSTEM SPECIFICATIONS

CONCEPT		DESCRIPTION
Type of device		Electric Operation Control Device
KNX Supply	Voltage	29V DC SELV
	Voltage range	20...31V DC
	Power consumption	200 mW (max)
	Bus connection	Typical BUS connector TP1, 0,50 mm <sup>2</sup> section
External Power Supply		No
Ambient Temperature		0°C a +55°C
Storage Temperature		-20°C a +70°C
Ambient Humidity		30 a 85% RH (no condensation)
Storage Humidity (relative)		30 a 85% 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.
Response when restarting		Data saving 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-ABS, flammability category Class D.

OUTPUTS SPECIFICATIONS AND CONNECTIONS		
Contact type	Potential Free outputs through bistable relays with tungsten pre-contact.	
Disconnection type	Micro-disconnection	
Rated current by output	$\sim$ 16A * 250V AC (4000 VA) $\text{---}$ 16A * 30V DC (480W)	
Type of load	Resistive load/incandescent lamps 3000W – Motor (fan, shutter) 1380 VA	
Maximum Inrush current	800A/200 $\mu$ s (fluorescent lamps) 165A/20ms (resistive lamps)	
Dropping Voltage	Negligible	
Outputs per common (Channel)	1 individual output	
Different Phases Connection	1 different phase per 8 output terminal block (4 terminal blocks)	
Maximum current per block	40A per terminal block	
Connection Type	Terminal block (screw)	
Recommended Cable Section	0,25 mm <sup>2</sup> a 4 mm <sup>2</sup>	
Cable Type	Stranded or solid wire with crimping terminals.	
Response Time	50 ms	
Number of automatic cycles (A) per automatic action	Mechanical (min)	3 million operations (60cpm)
	Electrical (min.)	100.000 cycles at Max. current (6cpm and resistive load)

## WIRING AND ASSEMBLY DIAGRAMS

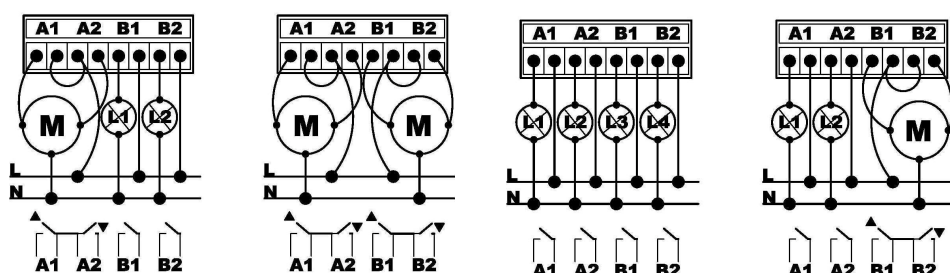


Figure 2. Terminal Block 1, wiring examples

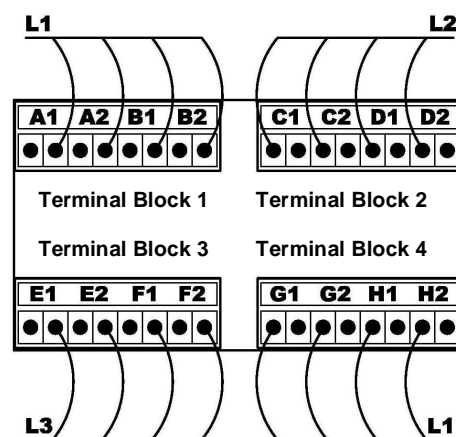
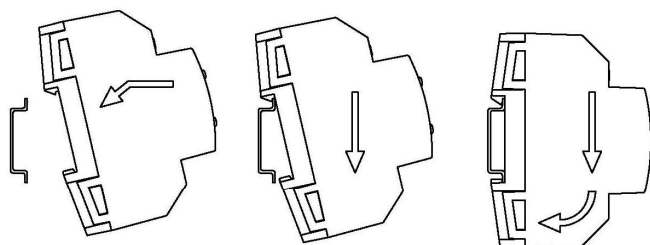


Figure 3. Phases connections

Attaching MAXinBOX16 to DIN rail:



Removing MAXinBOX16 from DIN rail:

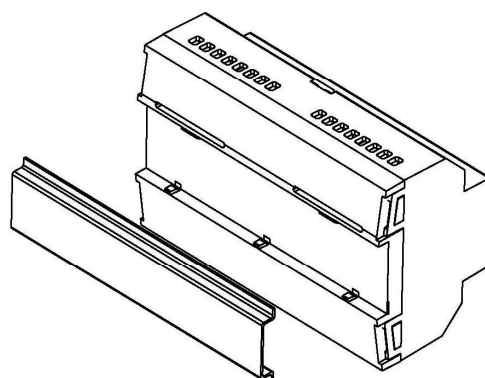
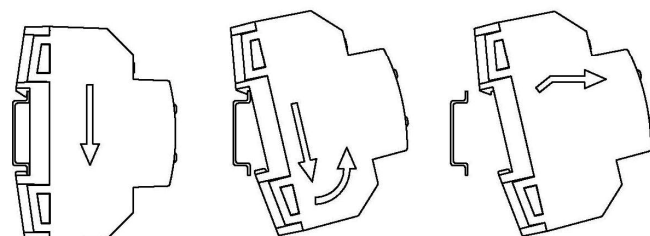


Figure 4. Installation of MAXinBOX16 on DIN rail

## SAFETY INSTRUCTIONS



- 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.
- Flexible cable with crimping terminals or rigid cable without terminals must be used for output connection.
- Make sure during the installation that there is always sufficient insulation between the mains voltage 230V and the bus or the extension inputs.
- Multiple phases are allowed, only if they are wired into different terminal blocks (terminal block 1, 2, 3 and 4, see "Figure 3. Phases connections").
- Once the device is installed, the output terminal should not be accessible.

## Technical Documentation