

## FEATURES

- DIN rail unit assembly (EN 50022), with snap fit clamp.
- Size 80 x 90 x 60 mm (4.5 DIN units).
- No external power supply required other than the Bus.
- KNX BCU integrated.
- 4 different configurable channels:
  - Shutter channels (up to 4)
  - Individual outputs (up to 8).
- 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**.
- Possibility to connect different phases in adjoining outputs.
- CE directives compliant.

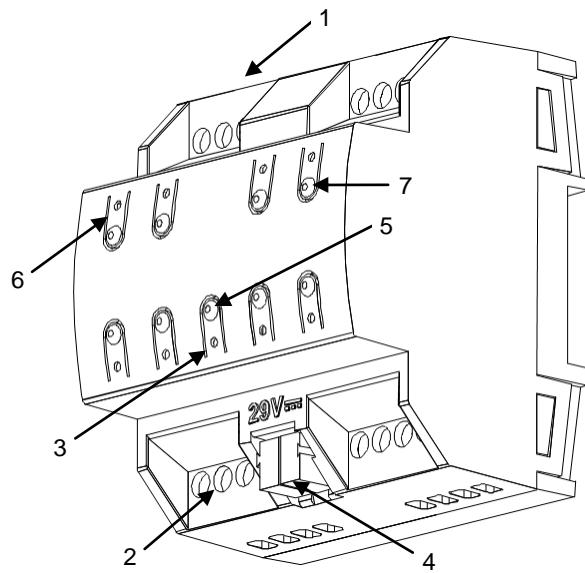


Figure 1. MAXinBOX8

**Programming/test button:** short button press 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

## 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 160 mW (max)
	Bus connection Typical BUS connector TP1, 0,50 mm <sup>2</sup> section
External Power Supply	No
Ambient Temperature	from 0°C to +55°C
Storage Temperature	from -20°C to +70°C
Ambient Humidity	30 to 85% RH (no condensation)
Storage Humidity (relative)	30 to 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).
KNX Bus Failure response	Data saving and relays open if channel configured as a shutter.
Response when restarting KNX Bus	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	284 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) $\equiv 16A * 30V$ DC (480W)	
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	Possibility to connect different phases in adjoining outputs	
Maximum current	80A	
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.	
Maximum Response Time	50 ms	
No. 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

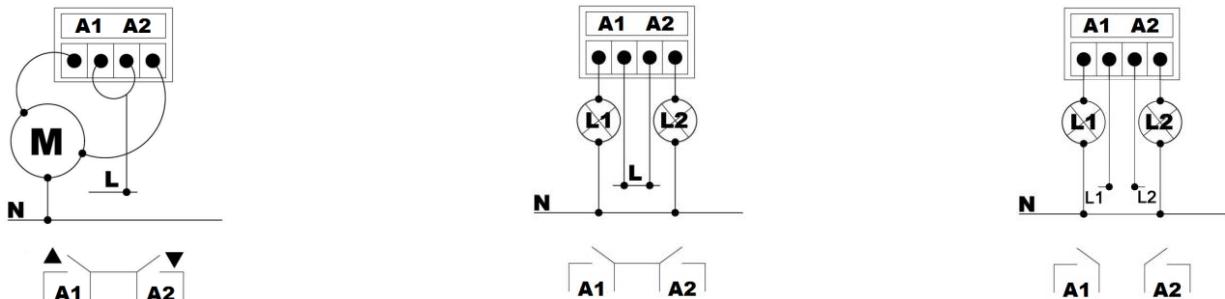
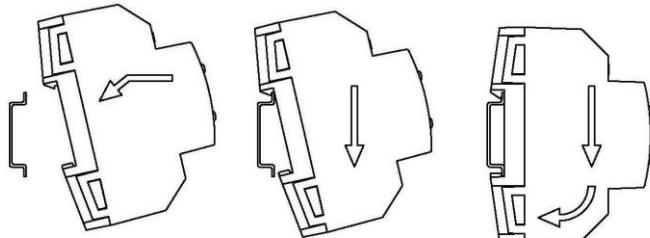


Figure 2. Terminal Block 1 wiring examples for shutter channel, outputs with same phase or outputs with different phases

### Attaching MAXinBOX8 to DIN rail:



### Removing MAXinBOX8 from DIN rail:

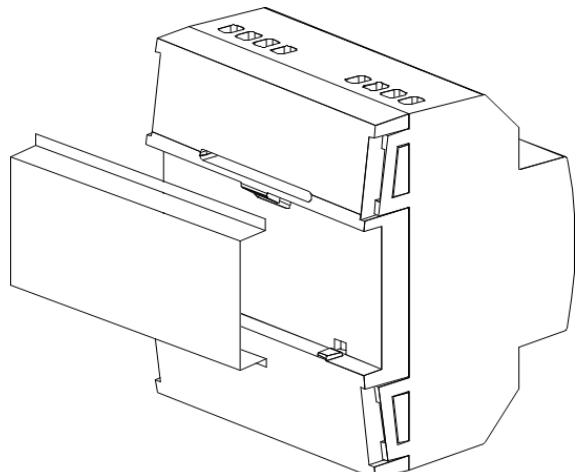
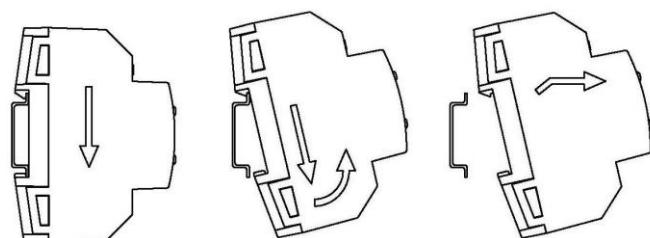


Figure 3. Installation of MAXinBOX8 on DIN rail



## 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.
- Once the device is installed, the output terminal should not be accessible.

## Technical Documentation