## FEATURES

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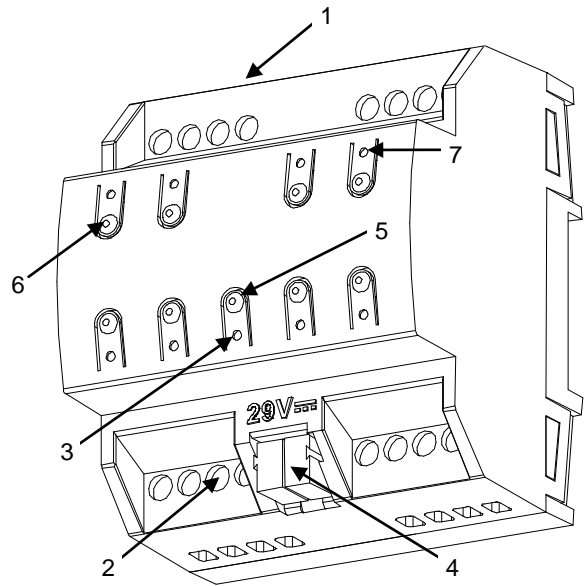- CE directives compliant.



*Figure 1. MAXinBOX 8*

| | | | |
|---|---|---|---|
| **1**. Upper outputs | **2**. Lower output screws | **3**.Programming/Test LED | **4**.KNX connector |
| **5**.Programming/Test button | **6**.Output control button | **7**.Output status LED indicator | |

**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. The manual mode is indicated by the colour green. During start up (after reset or power failure) and if the device is not in safe mode, LED blinks in blue for a few seconds

## GENERAL SYSTEM SPECIFICATIONS

| CONCEPT | | DESCRIPTION |
|---|---|---|
| Type of device | | Electric operation control device |
| KNX supply | Voltage (typical) | 29VDC SELV |
| | Voltage range | 21…31V DC |
| | Maximum consumption | 160mW |
| | Bus connection | Typical bus connector TP1, 0,50 mm² section |
| External power supply | | No |
| Ambient temperature | | from 0ºC to +55ºC |
| Storage temperature | | from -20ºC to +70ºC |
| 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). |
| KNX bus failure response | | Data saving and relays open if channel configured as 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 g. |
| 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 | | $\sim$16(6)A * 250V AC (4000 VA)       $\overline{\cdots}$ 16(6)A * 30V DC (480W) |
| Maximum inrush current | | 800A/200µs (fluorescent lamps) 165A/20ms (resistive lamps) |
| Outputs per common | | 1 individual output |
| Different phases connection | | Possibility to connect different phases in adjoining outputs |
| Maximum current | | 80A |
| Maximum power | Resistive load | 4000W |
| | Inductive load | 1500W |
| Connection type | | Terminal block (screw) |
| Recommended cable section | | 0,25 mm² to 4 mm² |
| Cable type | | Stranded or solid wire. |
| Maximum response time | | 50 ms |
| Expected life | Mechanical (min) | 3 million operations (60cpm) |
| | Electrical (min.) | 100.000 cycles at max. current (6cpm and resistive load) |

## WIRING AND ASSEMBLY DIAGRAMS
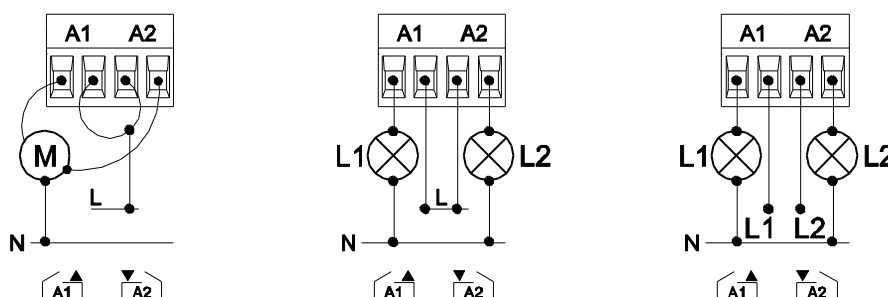


*Figure 2. Wiring examples (from left to right): channel A as shutter channel and individual outputs with the same and different phases.*

**Attaching MAXinBOX 8 to DIN rail:**
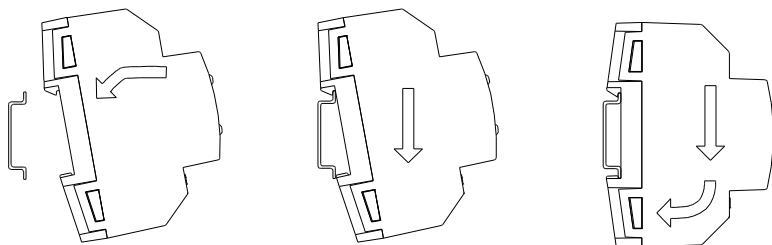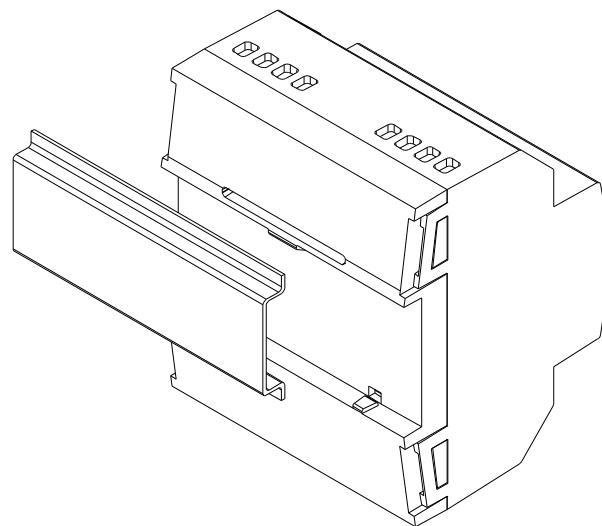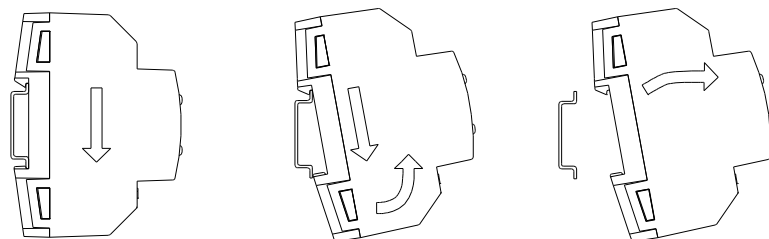


**Removing MAXinBOX 8 from DIN rail:**



*Figure 3. Installation of MAXinBOX 8 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.
▪ 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**