

FEATURES

- DIN rail unit assembly (EN 50022), with snap fit clamp.
- Size 67 x 90 x 80 mm (4.5 DIN units).
- KNX BCU integrated.
- 3 different configurable channels(*):
 - shutter channels (up to 3)
 - individual outputs (up to 6)
- 6 analog/digital inputs.
- 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.

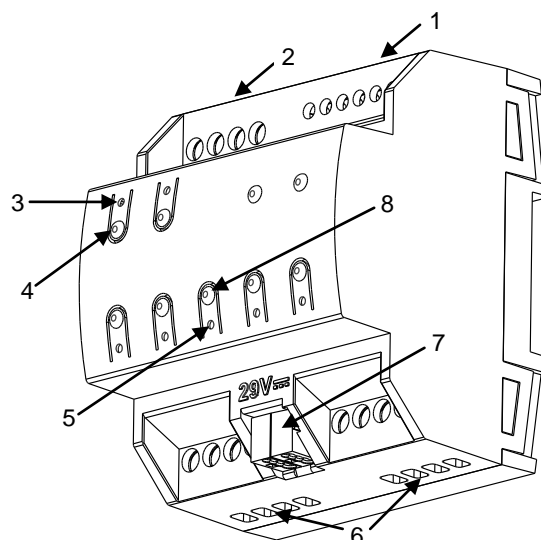


Figure 1. MAXinBOX66

1. Analog/Digital inputs	2. Upper outputs	3. Output status LED indicator	4. Output control button
5. Programming/Test LED	6. Lower outputs	7. KNX connection	8. Programming/Test button

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 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 green color. During start up (after reset or power failure) and if the device is not in safe mode, LEDs indicators blink blue for a few seconds

GENERAL SYSTEM SPECIFICATIONS

CONCEPT		DESCRIPTION
Type of device		Electric operation control device
KNX supply	Voltage	29VDC SELV
	Voltage range	21...31VDC
	Power consumption	240 mW (max)
	Bus connection	Typical bus connector TP1, 0.50 mm ² 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		200 gr.
PCB CTI index		175 V
Enclosure		PC+ABS 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 16A * 250V AC (4000 VA) --- 16A * 30V DC (480W)	
Maximum inrush current	800A/200 μ 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	60A	
Connection type	Terminal block (screw)	
Recommended cable section	0.25 mm ² to 4 mm ² (26-10 AWG)	
Cable type	Stranded or solid wire	
Maximum response time	50 ms	
Contact type	Potential free outputs through bistable relays with tungsten pre-contact.	
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

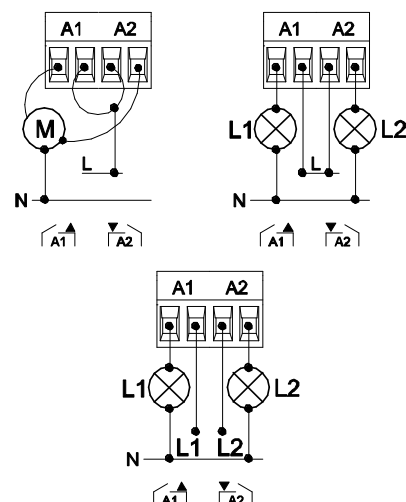
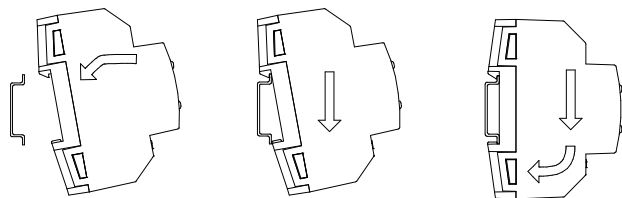


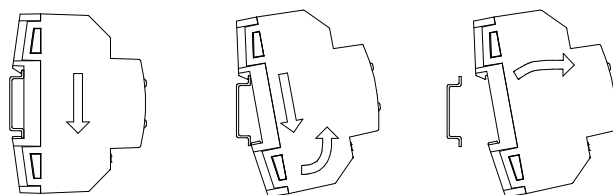
Figure 2: (From up to down and from left to right) Terminal block 1 wiring examples for shutter channel, outputs with same phase or outputs with different phases.

INPUT SPECIFICATIONS AND CONNECTIONS	
CONCEPT	DESCRIPTION
Number of inputs per common	6
Input voltage	+3.3V DC for the common
Input current	1.0mA @ 3.3V DC (each input)
Input impedance	Aprox. 3.3k Ω
Switching type	Dry voltage contacts between input and common
Connection method	Cable screw terminal
Max. cable length	30 m.
NTC probe length	1.5 m.
NTC accuracy (@ 25°C)	0.5°C
Temperature measure precision	0.1°C
Cable cross-section	0.15 mm ² to 2.5 mm ² (26-12 AWG)
Response time	Max 10ms.

Attaching MAXinBOX66 to DIN rail:

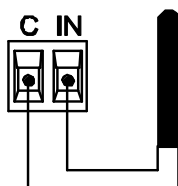


Removing MAXinBOX66 from DIN rail:



Any combination of the next **accessories** is allowed in the inputs:

Temperature Probe



Temperature probe references:

ZN1AC-NTC68E
ZN1AC-NTC68F
ZN1AC-NTC68S

Motion Sensor

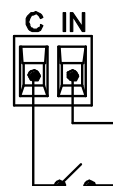


Up to two motion sensors can be plugged into the same MAXinBOX66 input (parallel wiring)

Motion sensor cable screw terminal.

Motion sensor references:
ZN1IO-DETEC-P⁽¹⁾
ZN1IO-DETEC-X

Switch/Sensor/ Push button



(1) The micro switch number 2 in the ZN1IO-DETEC-P **must be in Type B position** to work properly.

(*) In order to guarantee the correct functioning of relays when several outputs are controlled jointly, it is necessary to place the actuator as close as possible to the KNX power supply. A 29VDC KNX power supply is recommended.



SAFETY INSTRUCTIONS

- Do not connect Main 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