

## FEATURES

- 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.
- Size 67 x 90 x 79 mm (4.5 DIN units).
- DIN rail mounting (EN 50022), through pressure.
- KNX BCU integrated.
- Suitable for capacitive loads, maximum **140 µF**.
- Possibility to connect different phases in adjoining outputs.
- Conformity with the CE directives (CE-mark on the right side).

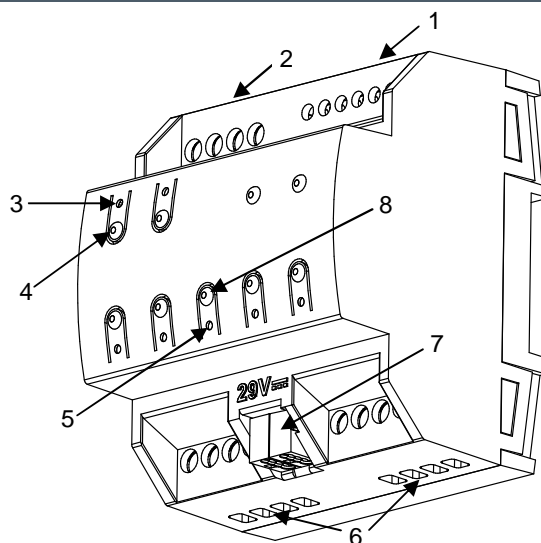


Figure 1. MAXinBOX 66

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 press to set programming mode. If this button is held while plugging the device into the KNX bus, it enters the safe mode. If this button is held for more than 3 seconds, the device enters the test mode.

**Programming/Test LED:** programming mode indicator (red). When the device enters into safe mode, it blinks (red) every half second. The manual mode is indicated by the green color. During the start-up (reset or after KNX bus failure) and if the device is not in safe mode, it starts a blue blinking sequence.

## GENERAL SYSTEM SPECIFICATIONS

CONCEPT			DESCRIPTION	
Type of device			Electric operation control device	
KNX supply	Voltage (typical)		29VDC SELV	
	Voltage range		21...31VDC	
	Maximum consumption	Voltage	mA	mW
		29VDC (typical)	7	203
		24VDC <sup>(1)</sup>	10	240
Bus connection		Typical bus connector TP1 for rigid cable 0.80mm Ø		
External power supply			No	
Operation temperature			from 0°C to +55°C	
Storage temperature			from -20°C to +70°C	
Operation humidity			5 to 95% RH (no condensation)	
Storage humidity			5 to 95% RH (no condensation)	
Complementary characteristics			Class B	
Protection class			II	
Operation type			Continuous operation	
Device action type			Type 1	
Electrical stress period			Long	
Degree of protection			IP20, clean environment	
Minimum clearances			Not required	
Installation			Independent device to be mounted inside electrical panels with DIN rail (EN 50022).	
Response on KNX bus failure			Data saving and relay status change according to parameterization.	
Response on KNX bus restart			Data recovering and output status change according to parameterization.	
Operation indication			Programming LED indicates programming mode (red) and test mode (green). Output status LED indicators reflect current output state.	
Weight			264g	
PCB CTI index			175V	
Housing material			PC FR V0 halogen free	

<sup>(1)</sup> Maximum consumption in the worst case scenario (KNX Fan-In model)

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 (6) * 250VAC (4000VA) $\text{---}$ 16A (6) * 30VDC (480W)	
Maximum inrush current	800A/200 $\mu$ s (fluorescent lamps) 165A/20ms (resistive lamps)	
Outputs per common (channel)	1 individual output	
Different phases connection	Possibility to connect different phases in adjoining outputs	
Maximum power	Resistive load	4000W
	Inductive load	1500VA
Maximum current	60A	
Connection type	Screw terminal block	
Recommended cable section	0.5mm <sup>2</sup> to 4mm <sup>2</sup> (26-10 AWG)	
Cable type	Stranded or solid wire	
Maximum response time	50ms	
Expected life	Mechanical (min)	3 million operations (60cpm)
	Electrical (min.)	100.000 cycles at maximum current (6cpm and resistive load)

⚠ In order to ensure the expected status of the relays, please check that the device is connected to the KNX bus before energizing the power circuit.

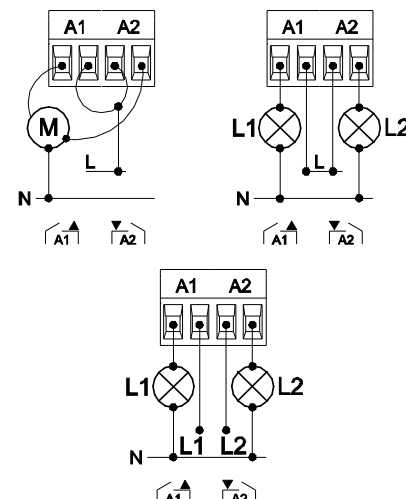
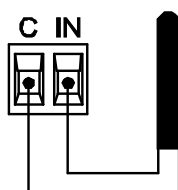


Figure 2: (From up to down and from left to right) Terminal block 1 wiring examples for shutter channel, outputs with same phase or outputs with different phases.

INPUT SPECIFICATIONS AND CONNECTIONS	
CONCEPT	DESCRIPTION
Number of inputs per common	6
Input voltage	+3.3VDC for the common
Input current	1.0mA @ 3.3VDC (each input)
Input impedance	Aprox. 3.3k $\Omega$
Switching type	Dry voltage contacts between input and common
Connection method	Screw terminal block
Max. cable length	30m
NTC probe length	1.5m
NTC accuracy (@ 25°C)	0.5°C
Temperature measure precision	0.1°C
Cable cross-section	0.5mm <sup>2</sup> to 2.5mm <sup>2</sup> (26-12 AWG)
Maximum response time	10ms

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

#### Temperature Probe



#### Temperature probe references:

ZN1AC-NTC68E  
ZN1AC-NTC68F  
ZN1AC-NTC68S  
ZAC-SQAT-W/S/A

#### Motion Sensor

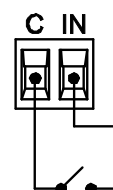


Up to two motion sensors can be plugged into the same MAXinBOX 66 input (parallel wiring)

Motion sensor cable screw terminal.

**Motion sensor references:**  
ZN1IO-DETEC-P<sup>(2)</sup>  
ZN1IO-DETEC-X

#### Switch/Sensor/ Push button



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

## SAFETY INSTRUCTIONS

- Installation should only be performed by qualified professionals according to the laws and regulations applicable in each country.
- Do not connect the mains voltage nor any other external voltage to any point of the KNX bus; it would represent a risk for the entire KNX system. The facility must have enough insulation between the mains (or auxiliary) voltage and the KNX bus or the wires of other accessories, in case of being installed.
- Once the device is installed (in the panel or box), it must not be accessible from outside.
- Keep the device away from water and do not cover it with clothes, paper or any other material while in use.
- The WEEE logo means that this device contains electronic parts and it must be properly disposed of by following the instructions at <http://zennio.com/weee-regulation>.