

Shutter Actuator with up to 4 Shutter Channels with KNX Secure

ZIOMBSH4V3 TECHNICAL DOCUMENTATION

FEATURES

- Up to 4 shutter channels
- Manual output operation with push button and LED status indicator
- Supports KNX Data Secure
- 20 logic functions
- Output timing
- Total data saving on KNX bus failure
- Integrated KNX BCU (TP1-256)
- Dimensions 67 x 90 x 79 mm (4.5 DIN units)
- DIN rail mounting according to IEC 60715 TH35, with fixing clamp
- · Possibility of connecting different phases in adjacent outputs
- Conformity with the CE, UKCA, RCM directives (marks on the right side)

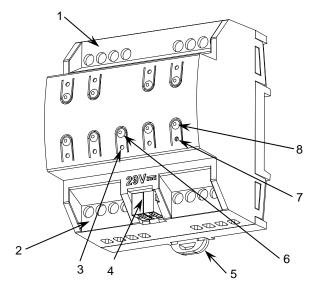


Figure 1: MAXinBOX SHUTTER 4CH v3

 Upper outputs 	Lower outputs	Programming/Test LED	KNX connector
Fixing clamp	Programming/Test button	Output status LED	Output control 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. In order to perform a KNX Secure factory reset, while the device is in safe mode, press the button for 10 seconds until the programming LED changes its state.

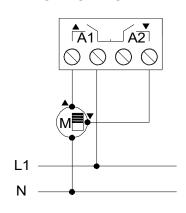
Programming/Test LED: programming mode indicator (red). When the device enters the safe mode, it blinks (red) every half second. The test mode is indicated by the green color. During the start-up (reset or after KNX bus failure) and if the device is not in safe mode, it starts a blue blinking sequence.

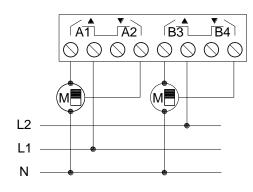
Type of device Electric operation control device Voltage (typical) 29 VDC SELV Voltage range 21-31 VDC Maximum consumption 29 VDC (typical) 4.10 118.9 Connection type Typical TP1 bus connector for 0.8 mm Ø rigid cable External power supply Not required Operation temperature 0 +55 °C Storage temperature -20 +55 °C Operation humidity 5 95% Storage humidity 5 95% Complementary characteristics Class B Protection class / Overvoltage category II / III (4000 V) Operation type Continuous operation	GENERAL SPECIFICATIONS					
$ \begin{tabular}{l l l l l l l l l l l l l l l l l l l $	DESCRIPTION					
Voltage range	Electric operation control device					
KNX supply Maximum consumption Voltage mA mW 29 VDC (typical) 4.10 118.9 24 VDC¹ 10 240 External power supply Not required Operation temperature 0 +55 °C Storage temperature -20 +55 °C Operation humidity 5 95% Storage humidity 5 95% Complementary characteristics Class B Protection class / Overvoltage category II / III (4000 V) Operation type Continuous operation	29 VDC SELV					
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Protection class / Overvoltage category II / III (4000 V) Operation type Continuous operation	5 95%					
Operation type Continuous operation	Class B					
	II / III (4000 V)					
	Continuous operation					
	Type 1					
Electrical stress period Long	<u> </u>					
	IP20 / 2 (clean environment)					
Installation Independent device to be mounted inside electrical panels with D 60715)	Independent device to be mounted inside electrical panels with DIN rail (IEC 60715)					
Minimum clearances Not required	Not required					
Response on KNX bus failure Data saving according to parameterization and relays contacts of	Data saving according to parameterization and relays contacts opening					
Response on KNX bus restart Data recovery according to parameterization						
Operation indicator The programming LED indicates programming mode (red) and (green). Each output LED indicates its status	The programming LED indicates programming mode (red) and test mode (green). Each output LED indicates its status					
Weight 250 g	250 g					
PCB CTI index 175 V						
Housing material / Ball pressure test temperature PC FR V0 halogen free / 75 °C (housing) - 125 °C (connectors)	PC FR V0 halogen free / 75 °C (housing) - 125 °C (connectors)					

¹ Maximum consumption in the worst-case scenario (KNX Fan-In model).

OUTPUTS SPECIFICATIONS AND CONNECTIONS				
CONCEPT		DESCRIPTION		
Number of outputs		4 shutter channels		
Output type / Disconnection type		Potential-free outputs through bistable relays / Micro-disconnection		
Rated current per output		AC 8(4) A @ 250 VAC (2000 VA) DC 5 A @ 30 VDC (150 W)		
Maximum load per output	Resistive	2000 W		
	Inductive	1000 VA		
Different phases connection		Possibility of connecting different phases. It is not allowed to connect power supplies of different order, SELV with NO SELV, in the same block.		
Short-circuit protection		NO		
Overload protection		NO		
Connection method		Screw terminal block (0.5 Nm max.)		
Cable cross-section		1.5-4 mm² (IEC) / 26-10 AWG (UL)		
Outputs per common		2		
Maximum response time		15 ms		
Mechanical lifetime (min. cycles)		1 000 000		

WIRING DIAGRAMS



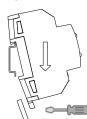


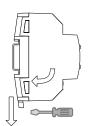
⚠ In order to ensure the expected status of the relays, please check that the device is connected to the KNX bus before energizing the power circuit.

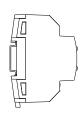
Figure 2: Wiring example (from left to right): one shutter on channel A and two shutters on channels A and B with different phases.

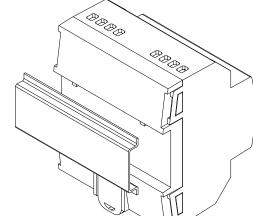




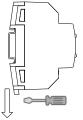


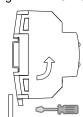






Removing MAXinBOX SHUTTER 4CH v3 from DIN rail:







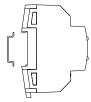


Figure 3: Mounting MAXinBOX SHUTTER 4CH v3 on DIN rail

SAFETY INSTRUCTIONS AND ADDITIONAL NOTES



- 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 (condensation over the device included) 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 https://www.zennio.com/en/legal/weee-regulation.
- This device contains software subject to specific licences. For details, please refer to https://zennio.com/licenses.