

MAXinBOX SHUTTER 4CH

Shutter actuator – 4 channels ZIO-MBSHU4

Technical Documentation

- FEATURES
- 4 shutter channels.
- Manual output operation with push button and LED status indicator.
- Logical functions included.
- Output timing facilities.
- Total data saving on power failure.
- Size 90 x 67 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 shutter channel outputs.
- CE directives compliant.



Figure 1. MAXinBOX SHUTTER 4CH

 Upper outputs 	2. Lower	3.Programming/Test	4 .KNX	
	output screws	LED	connector	
5.Programming/Test	 Output cont 	rol 7.Output sta	Output status LED	
button	button	indicat	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. It lights in green when the device is in manual mode. During start up (after reset or power failure), if the device is not in safe mode, programming LED blinks in blue for a few seconds.

GENERAL SYSTEM SPECIFICATIONS						
CONCEPT			DESCRIPTION			
Type of device			Electric operation control device			
Voltage (typical)		al)	29VDC SELV			
KNX supply	Voltage range		2131V DC			
		Voltage	mA	mW		
	Consumption	29VDC (typical)	5.8	168.2		
	-	24VDC ⁽¹⁾	10	240		
	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			5 to 95% RH (no condensation)			
Storage humidity (relative)			5 to 95% RH (no condensation)			
Complementary characteristics		ics	Class B			
Safety class						
Operation type			Continuous operation			
Device action type			Туре 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.			
Response when restarting KNX bus		NX bus	Data recovering and output status change according to programming.			
Operation indication			Programming LED indicates programming mode (red) and test mode (green). Output status LED indicators reflect current output state.			
Weight			235gr.			
PCB CTI index			175 V			
Enclosure			PC FR V0 halogen free			

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

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OUTPUTS SPECIFICATIONS AND CONNECTIONS				
Contact type		Potential free outputs through bistable relays		
Disconnection type		Micro-disconnection		
Rated current by output		→ 10A (5) * 250V AC (2500 VA) → 10A * 30V DC (300W)		
Outputs per common		1 common per shutter channel		
Different phases connection		Possibility to connect different phases in adjoining shutter channel outputs (see "wiring and assembly diagrams" section)		
Maximum power	Resistive load	2500W		
	Inductive load	1250VA		
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		
Expected life	Mechanical	1 million operations (180cpm)		
Expected life	Electrical	50.000 cycles (6cpm with resistive load)		

WIRING AND ASSEMBLY DIAGRAMS



Figure 2. Wiring examples (from left to right): channel A and channel A and B with different phases

Attaching MAXinBOX SHUTTER 4CH to DIN rail:



Removing MAXinBOX SHUTTER 4CH from DIN rail:





Figure 3. MAXinBOX SHUTTER 4CH DIN-rail assembly

SAFETY INSTRUCTIONS



- Installation should only be performed by qualified electricians following applicable regulations on preventing accidents, as required by law
- 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.
- The WEEE logo means that this device contains electronic parts and it must be discarded properly following the instructions of http://zennio.com/weee-regulation.

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