

### **TECHNICAL DOCUMENTATION**

### **FEATURES**

- 8 configurable outputs for 230VAC valve control.
- · 8 thermostats.
- 10 logic functions.
- Total data saving on KNX bus failure.
- Manual control through buttons and status LED indicators.
- Common 230VAC supply required for the 8 outputs.
- Integrated KNX BCU.
- Dimensions 67 x 90 x 79mm (4.5 DIN units).
- DIN rail mounting (EN 50022), through pressure.
- Conformity with the CE directives (CE-mark on the right side).

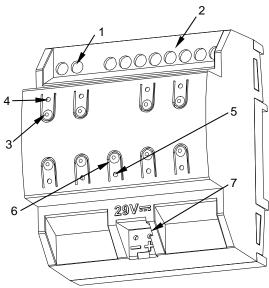


Figure 1: HeatingBOX 230V 8X

1. 230V input (live phase)	2. Valve outputs	3. Output control button	Output status Indicator LED
5. Programming/Test LED	<ol><li>Programming/Test button</li></ol>		7. KNX connector

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 the 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 emits a red flash.

GENERAL SPECIFICATIONS						
CONCEPT		DESCRIPTION	DESCRIPTION			
Type of device		Electric operation control device	Electric operation control device			
	Voltage (typical)		29VDC SELV			
	Voltage range	,	2131VDC	2131VDC		
KNX supply Maximum		Voltage	mA	mW		
		29VDC (typical)	10.7	310.3		
	consumption	24VDC <sup>1</sup>	15	360		
	Connection ty	pe	Typical TP1 bus connector for	Typical TP1 bus connector for 0.80mm Ø rigid cable		
External power supply		230V 50/60Hz (only phase, for	230V 50/60Hz (only phase, for valve supply)			
Operation temperature		0°C +55°C	0°C +55°C			
Storage temp	erature		-20°C +55°C			
Operation hu			5 95% (No condens.)			
Storage humi			5 95% (No condens.)			
Complementary characteristics		Class B				
Protection cla	ISS		II	11		
Operation type		Continuous operation	Continuous operation			
Device action type		Type 1	·			
Electrical stress period		Long				
Degree of protection		IP20, clean environment				
Installation		Independent device to be mour	Independent device to be mounted inside electrical panels with DIN rail (EN			
		50022)				
Minimum clearances		Not required	Not required			
Response on KNX bus failure		Data saving according to parar	Data saving according to parameterization			
Response on	KNX bus restar		Data recovery according to par	Data recovery according to parameterization		
Operation indicator		(green). Each output LED flashing=overload or short-circ	The programming LED indicates programming mode (red) and test mode (green). Each output LED indicates its status (fixed=active output; flashing=overload or short-circuit). The blue blinking of the programming LED indicates a 3 minutes lock due to the suffering of 3 short-circuits in less than 3 minutes.			
Weight		181g	181g			
PCB CTI inde	ex		175V			
Housing mate	erial		PC FR V0 halogen free	PC FR V0 halogen free		
N 4 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -		et case scenario (KNY Fa	- l			

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

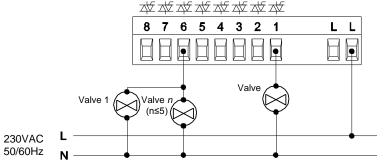
OUTPUTS SPECIFICATIONS AND CONNECTIONS				
CONCEPT		DESCRIPTION		
Number of outputs		8		
Output type		Solid state switching device		
Maximum	Quantity of valves <sup>2</sup>	5		
recommended load per	Stationary current	200mA (@ 35°C)		
output (AC/DC)	Maximum inrush current	2.5A		
Short-circuit protection		YES		
Overload protection		YES		
Connection method		Screw terminal block		
Cable cross-section		0.5-4mm <sup>2</sup> (IEC) / 26-12AWG (UL)		

<sup>&</sup>lt;sup>2</sup> This value could be more restrictive depending on the valve stationary current and inrush current.

EXTERNAL POWER SUPPLY SPECIFICATIONS AND CONNECTIONS		
CONCEPT	DESCRIPTION	
Voltage	230VAC 50/60Hz	
Connection method	Screw terminal block	
Cable cross-section	0.5-4mm <sup>2</sup> (IEC) / 26-12AWG (UL)	

Connecting more than one valve to each output is allowed as long as the maximum current per output is not exceeded:

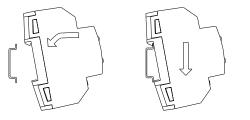
WIRING DIAGRAMS
Several valves per output connection schematic
One valve per output connection schematic

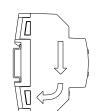


• **NOTE**: Simultaneous connection of one valve to several outputs is not allowed.

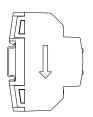
Figure 2: Wiring example: several valves per output and one valve per output.

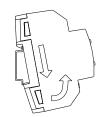
## Attaching HeatingBOX 230V 8X to DIN rail:

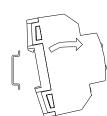




# Removing HeatingBOX 230V 8X from DIN rail:







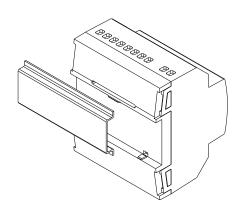


Figure 3: Mounting HeatingBOX 230V 8X on DIN rail

Futher information www.zennio.com



### 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.
- The facility must be equipped with a device that ensures the omnipolar sectioning. Installation of a 10A mini-circuit-breaker is recommended. To prevent accidents, it must remain open in case of manipulation of the device.
- 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 <a href="http://zennio.com/weee-regulation">http://zennio.com/weee-regulation</a>.