

# Heating actuator with 4 outputs 230VAC ZCL-4HT230

## **Technical Documentation**

#### **FEATURES**

- 4 configurable outputs for 230V valve control.
- 4 thermostats.
- 10 Logic functions.
- Total data saving on power failure.
- Manual control through buttons and status LED indicators.
- Common 230V supply required for the 4 outputs.
- Integrated KNX BCU.
- Size 67 x 90 x 35 mm (2 DIN units).
- DIN rail mounting (EN 50022), through pressure.
  - Conformity with the CE directives (CE-mark on the right side).

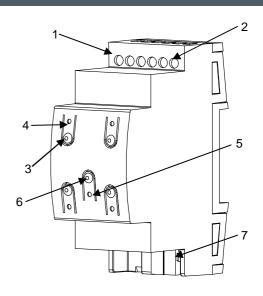


Figure 1. HeatingBOX 230V 4X

1. 230V input (live phase)	2. Valve outputs	3. Output control button	4. Output status indicator LED
<ol><li>Programming/Test LED</li></ol>	6. Programming/Test button		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 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 emits a red flash.

CONCEPT			DESCRIPTION		
Type of device			Electric operation control device		
Voltage (typi		al)	29VDC SELV		
KNX supply	Voltage range		2131VDC		
		Voltage	mA	mW	
	Maximum	29VDC (typical)	7,5	217,5	
,	consumption	24VDC <sup>(1)</sup>	10	240	
	Bus connection		Typical bus connector TP1 for rigid cable 0.80mm Ø		
External power supply			230V 50/60Hz (only phase, for valve supply)		
Operation temperature			from 0°C to +55°C		
Storage	temperature		from -20°C to +55°C	from -20°C to +55°C	
	on humidity		5 to 95% RH (no condensation)		
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Complementary characteristics		eristics	Class B		
Protection class			II		
Operation type			Continuous operation		
Device action type			Type 1		
Electrical stress period			Long		
Degree of protection			IP20, clean environment		
Installation			Independent device to be mounted inside electrical panels with DIN rail (EN 50022)		
Minimal clearances			Not required		
KNX bus failure response		е	Data saving according to parameterization.		
Response on KNX bus failure		ailure	Data recovering change according to parameterization.		
Response on KNX bus restart			Programming LED indicates programming mode (red) and test mode (green). Each output LED indicates its status (fixed = active output; flashing = overload or short-circuit error)		
Weight			98g		
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)

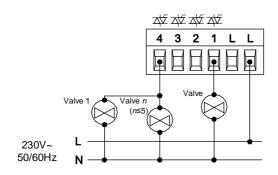
OUTPUT SPECIFICATIONS AND CONNECTIONS				
CONCEPT		DESCRIPTION		
Number of outputs		4		
Output type		Solid state switching device		
Maximum values per output	Quantity of valves <sup>(2)</sup>	5		
	Stationary current	200mA (considering an ambient temperature of 35°C)		
	Inrush current	2,5A		
Short-circuit protection		YES		
Overload protection		YES		
Connection method		Cable screw terminal		
Cable cross-section		0,5 mm <sup>2</sup> to 2,5mm <sup>2</sup> (26-12 AWG)		

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

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

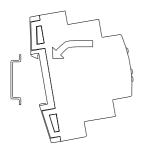
Several valves per output connection schematic

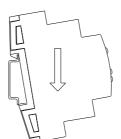
One valve per output connection schematic

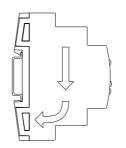


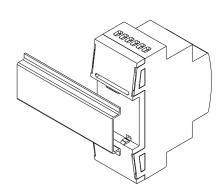
**NOTE**: Simultaneous connection of one valve to several outputs is not allowed.

### Attaching HeatingBOX 230V 4X to DIN rail:

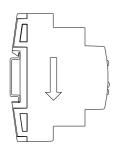


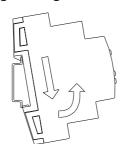






Removing HeatingBOX 230V 4X from DIN rail:





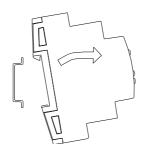


Figure 2. Mounting HeatingBOX 230V 4X on a DIN rail

# 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.