INTIEL

THE ELECTRONICS ON YOUR SIDE

STEP CONTROL CONTROLLER

type: CAd

User's Manual

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⚠ Safety instructions:

- Before installation, check the integrity of the unit and its connecting wires.
- In case of damaged can not be mounted to the removing of the fault.
- The installation and disassembly of the unit must be carried out by qualified personnel who have previously read the product manual.
- Mount in a dry and ventilated place away from heat sources and flammable gases or liquids.
- Make sure that the mains voltage matches the voltage on the rating plate of the unit.
- Use power consumers that match the power output of the appliance.
- In the event of malfunctioning, switch off the appliance immediately and seek authorized service for repair.
- In case of fire, use a fire extinguisher.
- For the purpose of environmental protection, do not throw away electrical appliances and their packaging marked with a symbol

crossed bin 

Contents of the package:
- The STEP CONTROL
- User guide (warranty card)

I. Application

The controller is designed for cascade control of heating, air conditioning and other installations built with more than one unit.

II. Method of working

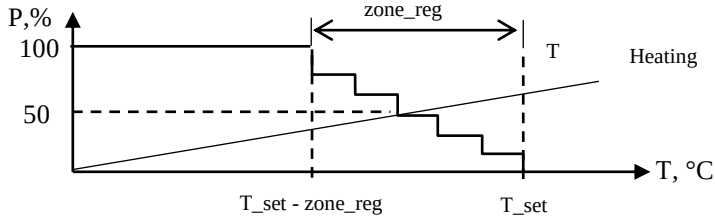
In heating or cooling mode, the controller monitors the measured and set temperature and, according to the set parameters, turns on or off a certain number of units to maintain the set temperature.

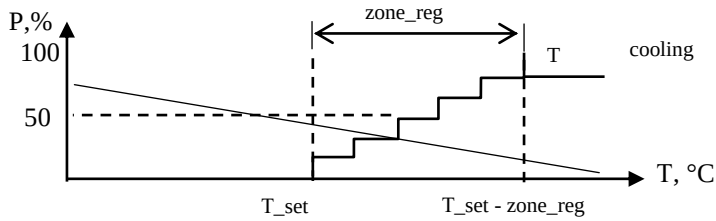
For a uniform load, it is planned to change the order of turning on and off the stages according to "FIFO" logic.

Control outputs:

The regulation zone "Zone_reg" is immediately before the temperature setpoint in the equalizer or buffer vessel "T_set". When the measured water temperature is less than the temperature defined by the regulation zone "Zone_reg", all available stages are switched on and all installed power is supplied.

Upon reaching the regulation zone, a part of the steps will start to be turned off, with the supplied power being proportional to the temperature difference between the set and measured temperature in the equalizer or buffer vessel (T_set – T). When the measured water temperature is greater than the set point, all stages are off and we have no power output.



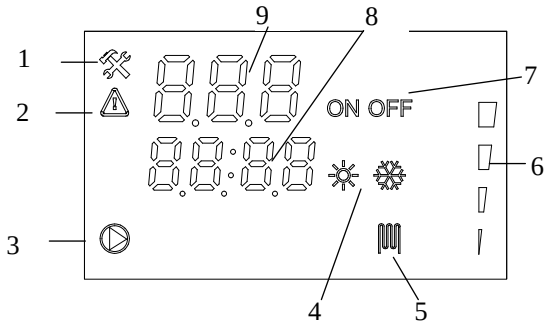


When the contact from the safety thermostat input is opened, all outputs are immediately switched off.

III. Front panel

1 – indication;
2 – "forward" change button;
3 – "back" change button;
4 – button for entering / exiting programming mode, start / stop (when held for 5 seconds;

Description of the indication



1 – setting mode indicator,
2 – emergency indicator;
3 – pump on indicator;
4 – heating/cooling mode indicator;
5 – indicator of included stages, 6 – indicator of power;
7 – ON/OFF indicator;
8 – display of set temperature/change in setting mode;
9 – display of measured temperature/parameter in setting mode;

„**Err**" – temperature measurement error

IV. Programming

Make sure the controller is not in the off state, otherwise there will be an OFF message:

Attention! The controller can be turned on and off from the front panel or remote control input. The controller turns off regardless of where the STOP

command is given, but can only be turned on when there is a START command in both places.

name	designation	limits	note
Set temperature for heating	tH	Tmin - Tmax	
Set room temperature	tr	5 – 35 °C	
Set temperature for cooling	tC	5 – 35 °C	

Information about warning messages.

With buttons "↑" or "↓" scroll until the display shows **ALr**:

safety thermostat	E1	Eliminate the cause of the malfunction	
no alarms	--		

Service settings.

With buttons "↑"or "↓" scroll until the display shows **PAS** and press a button „✓".

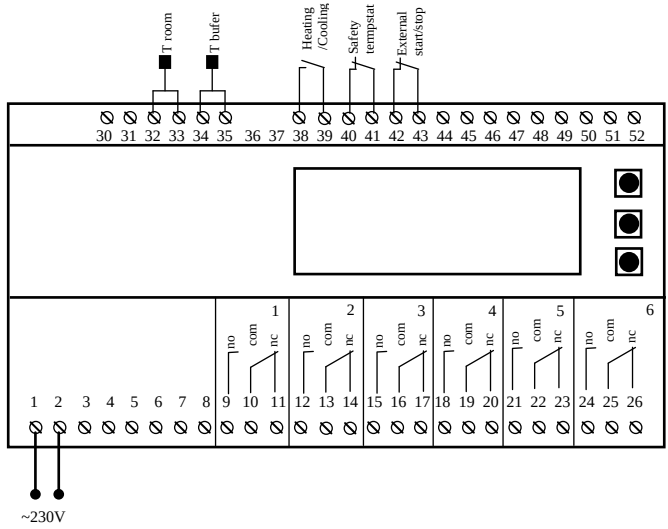
Passwords	*designation*
123	login service settings

name	*designation*	*limits*	*note*
maximum setpoint temperature	tHi	Tmin – 120 °C	
Min. setpoint temperature	tLo	5 – Tmax	
number of degrees	rEL	1 – 6	
regulation area	hiS	5 – 15 °C	
temperature setpoint formation	rEG	0 – manual 1 – at room temperature.	
output rotation	rot	0 – disabled 1 – allowed	
pump outlet	Po	0 - not used 1 - exit for 6 st.	
password login for settings	PAS	En – with password diS – without password	

V. Electrical connection and technical data

Technical characteristics

1.	Supply voltage	230V/50Hz
2.	Outputs	6 /230V/50Hz/
3.	Sensor	Pt-1000 /-50 to 250C/
4.	Measurement range	-30 +130 °C
5.	Ambient temperature	5 to 40C
6.	Relative humidity of environment	up to 80%
7.	Degree of protection	IP-20



- Remote control input – START when the contact is closed between terminals 42 and 43, STOP when the contact is open. When not in use a bridge must be placed between terminals 42 and 43.

- Protective thermostat input – when the contact is open, it triggers the protection. When not in use, a bridge must be placed between terminals 40 and 41.

Recommendations for the installation of the elements:

- Tbufer temperature sensor, installed in the equalizer or buffer vessel.

- room temperature sensor, installed in the room in a place protected from direct sunlight and internal heat sources (household electrical appliances, audio-video equipment, etc.).

VI. Warranty conditions

The warranty period is 24 months following the purchase date of the unit or its installation by an authorized Engineering Company, but not exceeding 28 months after the production date. The warranty is extended to the malfunctions that occur during the warranty period and are result of the production reasons or defective used parts.

The warranty does not relate to malfunctions corresponding to not-qualified installation, activities directed to the product body interference, not regular storage or transport.

The repairs during the warranty period can be done after correct filling of the manufacturer warranty card