

EUROSTER 1100Z

Euroster 1100Z is a processor-based electronic temperature controller designed to control DHW and heating water circulating pumps. It operates with two sensors and according to two independent temperature settings.

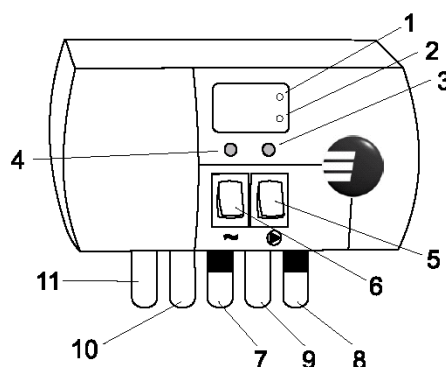
When incorporated in hydronic heating systems supplied by coal or gas-fired boiler it controls forced circulation of heating water.

The function of EUROSTER 1100Z is to maintain the temperature of water at a constant level on the hot water cylinder or on the DHW circuit.

The unit features cylinder cooling protection - to avoid excessive drop of temperature on the hot water cylinder, following the decrease of heating boiler temperature and DHW priority option.



EUROSTER 1100Z is equipped with ANTISTOP system, to prevent seizure of pump rotor in idle periods. Throughout the non-heating season every fortnight the integral processor of EUROSTER 1100Z will automatically cycle the pump for 30 seconds. For this function to be operational, the thermostatic controller must NOT be switched off at the end of the heating season.



1. Status indication – DHW mode
2. Status indication – heating mode
3. DHW/ heating mode switch, temperature adjustment – up
4. DHW/ heating mode switch, temperature adjustment – down
5. On/off switch for continuous pump operation (on DHW/ heating circuits)
6. On/off mains switch
7. Power supply to DHW pump, 230 V AC
8. Temperature sensor on DHW circuit
9. Temperature sensor on heating circuit
10. Power supply to heating water circulating pump, 230 V AC
11. Power supply to controller unit, 230 V AC

1. INSTALLATION



DANGER! Dangerous voltage is present both inside the enclosure and on the outgoing cables. Prior to installation by a qualified electrician make sure that the unit has been disconnected from power supply to avoid the risk of electric shock. Units with mechanical damage should not be installed.


a. mounting of the controller:

- the controller is fixed directly to the wall or to any other support with two screws (plastic plugs c/w screws are part of delivery)
- the cables extending from the controller are fixed to the wall with cable clips


b. mounting of the temperature sensor:

- **the sensor is NOT intended for immersion in liquids and installation on breechings (flues between the boiler and chimney)**
- install the heating water temperature sensor on the bare outlet pipe of the boiler (as close to the boiler as possible) or on the hot water cylinder
- install the DHW temperature sensor on the hot water cylinder (cable marked with a black sleeve)

c. connecting of the power supply cable to the heating water circulating pump:

- connect the yellow or yellow/green wire (protective conductor) to terminal ()
- connect the blue wire to terminal (N)
- connect the brown wire to terminal (L)

d. connecting of the power supply cable to the DHW circulating pump (marked with a black sleeve):

- connect the yellow or yellow/green wire (protective conductor) to terminal ()
- connect the blue wire to terminal (N)
- connect the brown wire to terminal (L)

e. check-up of connections:

- make sure the connections have been made as indicated and secure the cover of the pump motor terminal box

f. connection of the controller:

- upon securing the cables against accidental pullout, **connect the power supply cable to a 230V/50Hz grounding socket.**

IMPORTANT: At the mounting location of the controller ambient temperature should not exceed 40°C.

3. OPERATION

After switching on the controller allow ca. 60 sec. for the controller to become fully operational

a. start up:

- set the left-hand toggle switch (~) to position I,
- upon energising all the segments of the display light up for ca. 2 seconds,
- the current temperature, as measured by the sensor is displayed and the controller operates according to the factory settings (temperature limit of 50°C).

b. description of display functions

- display continuously on – current temperature, as measured by the sensor,
- blinking display – temperature setpoint,
- red LED on – controller is switched to DHW mode
- green LED on – controller is switched to heating mode
- dot appears after the second figure – DHW priority is on

c. viewing of DHW temperature

- for viewing the DHW temperature simultaneously press and release the two switches. The current temperature, as measured by the DHW sensor will be displayed. After 5 sec. the heating water temperature will return to the display.

d. DHW priority

- for switching the DHW priority on/off simultaneously press the two switches under the display until the right outermost dot on the LED display changes its status. The DHW priority is on when the light comes up, and off - when the light is off.

e. cylinder cooling protection

- the function is active by default and indicated by continuous (not blinking) display at controller start up.
- for deactivating the cooling protection press either of the presetting switches while powering up the controller with the mains switch (~). Deactivation of the function is indicated by blinking of display (figures 88) two times before displaying the current temperature.
- for activating the cooling protection repeat the above described procedure.

f. setting the temperatures

- setting the temperature for the DHW circulating pump: press the left-hand switch under the display – the figures will start blinking indicating that the current DHW temperature setpoint is being displayed,
- use the right-hand or left-hand switches to increase/ decrease the displayed temperature setpoint, as appropriate,
- after ca. 4 sec. the display will stop blinking indicating that the preset temperature has been stored. The display will return to displaying the current temperature, as measured by the sensor on the heating circuit.
- setting the temperature for the heating water circulating pump: press the right-hand switch under the display – the figures will start blinking indicating that the current DHW temperature setpoint is being displayed,
- use the right-hand or left-hand switches to increase/ decrease the displayed temperature setpoint, as appropriate,
- after ca. 4 sec. the display will stop blinking indicating that the preset temperature has been stored. The display will return to displaying the current temperature, as measured by the sensor on the heating circuit.

g. automatic operation mode

- set the right hand switch (►) to 0

Cooling protection on:

- the DHW pump is operated as follows: the pump is switched on when the temperature measured by the DHW sensor has dropped below the setpoint and the heating water temperature is higher by 6°C than the cylinder temperature, as a protection against excessive cooling. With active cylinder cooling protection the controller will switch off the heating water circulating pump. The DHW circulating pump will be switched off when the temperature on the hot water cylinder has risen 1°C above the setpoint or the temperature difference between the boiler and the DHW cylinder has reached 4°C. The pump will be restarted when the temperature on the DHW cylinder has dropped by 2°C below the setpoint.
- the heating water circulating pump is operated as follows: the pump is switched on when the temperature measured by the heating water sensor has risen by 2°C above the setpoint and it is switched off when the temperature has dropped by 3°C below the setpoint. With active DHW priority the heating water circulating pump will be switched on only when the DHW pump is off.

Cooling protection off:

- heating of water in the cylinder is governed solely by the temperature measured by the DHW sensor. The pump is switched on when the temperature has dropped below the setpoint and switched off when it has risen by 1°C above that setting. The operation of the heating water pump is the same as described for operation with active cooling protection.

h. continuous operation mode:

- set the toggle switches (⋈) and (▶) to position I,
- green LED is on to indicate that the heating water circulating pump operates continuously, irrespective of the selected operating mode (DHW/ heating), temperature setpoint and the current temperature, as measured by the sensor
- set the toggle switch (⋈) to position I and toggle switch (▶) to position II,
- red LED is on to indicate that the DHW circulating pump operates continuously, irrespective of the selected operating mode (DHW/ heating), temperature setpoint and the current temperature, as measured by the sensor.

4. COMPLIANCE WITH STANDARDS AND CONFORMITY CERTIFICATES

EUROSTER 1100Z is in compliance with the following EU directives: EMC, LVD

The CE certificate of conformity is posted on our website:

www.euroster.com.pl

5. DATA SHEET

a. temperature setting range	10°C – 80°C
b. temperature measurement range	1°C – 99°C
c. heating hysteresis (on / off difference)	5°C
d. DHW hysteresis (on / off difference)	3°C
e. supply voltage	230V AC
f. max. current	6A AC
g. length of output cables	1.5 m
h. dimensions	145x72x45

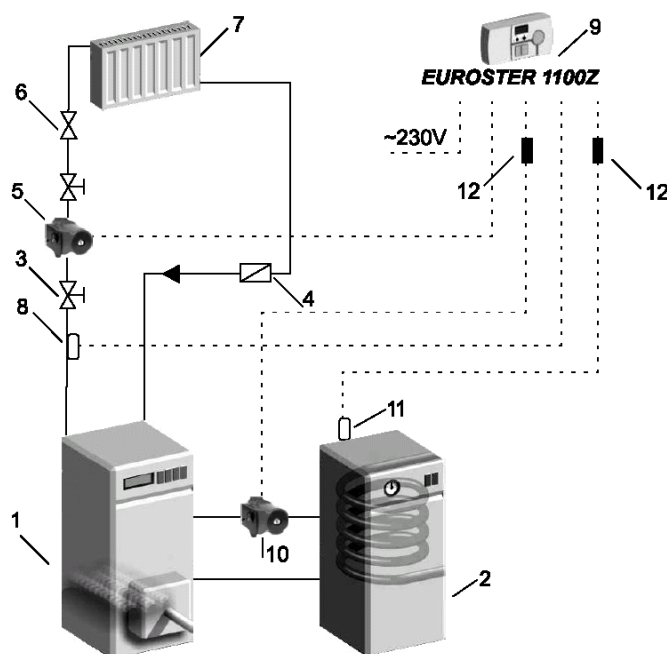
6. SHIPPING LIST

- a) controller and sensor
- b) fixing clip
- c) wall plugs
- d) user manual
- e) installation template

7. WIRING DIAGRAMS

These are simplified diagrams and as such they not show all the components necessary for fully functional operation of the system.

wiring of EUROSTER 1100Z in a system with a stand-alone hot water cylinder



1. Heating boiler
2. Hot water cylinder
3. Shutoff valve
4. Strainer
5. Heating water circulating pump
6. Check valve
7. Heating unit - radiator
8. Temperature sensor on the heating circuit
9. EUROSTER 1100Z
10. DHW circulating pump
11. DHW temperature sensor
12. Cable marked with a black sleeve