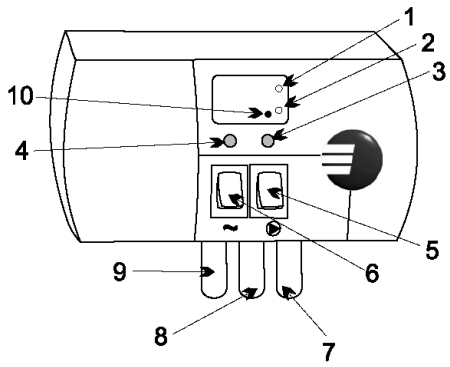
EUROSTER 1100E

Congratulations on choosing our thermostatic controller EUROSTER. It is a technically advanced product which will serve you and your family for years bringing energy savings and thermal comfort.



1. Status indication – DHW mode
2. Status indication – heating mode
3. Temperature adjustment – up
4. Mode switch: DHW/ heating, temperature adjustment – down
5. On/off switch for continuous pump operation
6. On/off mains switch
7. Temperature sensor
8. Pump supply, 230 V AC
9. Controller supply, 230 V AC
10. Pump status

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
- secure the sensor on the pipe by tightening the supplied fixing clip

NOTE: As a recommendation, the outlet pipe should be provided with thermal insulation on the section between the boiler and the temperature sensor. If the central heating system is supplied from both a coal- and a gas-fired boiler, the temperature sensor should be installed at the meeting point of the two outlet pipes and insulated.

c. connecting of the power supply cable to the 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. check-up of connections:
- make sure the connections have been made as indicated and secure the cover of the pump motor terminal box

e. 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 40ºC.

2. OPERATION

After switching on the controller allow ca. 30 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 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 – pump in operation

c. selection of the operating mode
- for switching between DHW and heating modes use the left-hand toggle switch under the display

d. setting the temperature
- press the right-hand switch under the display – the figures will start blinking and the current setpoint is displayed,
- use the right-hand and 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.

e. automatic operation mode
- set the right-hand switch (▸) to 0,
- the circulating pump is switched on/off depending on the temperature setpoint,
- in the heating mode the controller will switch on the pump when the temperature measured on the sensor has exceeded the setpoint by 2°C and switch it off when the temperature has dropped by 3°C below the setpoint [5°C hysteresis],
- in the DHW mode the controller will switch on the pump when the temperature measured on the sensor has dropped by 2°C below the setpoint and switch it off when the temperature has exceeded the setpoint by 1°C [3°C hysteresis].

IMPORTANT!

In a hydronic heating system supplied by a coal-fired boiler the thermostatic controller will switch off the pump upon flame failure. Pumping of water upon flame failure should be

avoided, as suction caused by chimney draft will result in quicker lowering the temperature of water inside the boiler as compared to the radiators. The optimum temperature is preset on the controller's scale (the most common setting is ca. 40ºC). In order to avoid condensation on the surface of boiler during heating-up (so-called "sweating") the temperature should be set above the dew point.

In a hydronic heating systems supplied by a gas-fired boiler the temperature setting on the controller must be lower than the setpoint of the boiler thermostat.

f. continuous operation mode:

- set the toggle switches (~) and (▸) to position I,
- the pump is continuously on, irrespective of the selected operating mode (DHW/ heating), temperature setpoint and the current temperature, as measured by the sensor.

IMPORTANT!
With the (▸) switch in position I in DHW mode the pump will be switched off at 90°C and restarted when the temperature has dropped below 90°C.

4. COMPLIANCE WITH STANDARDS AND CONFORMITY CERTIFICATES

EUROSTER 1100 E 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

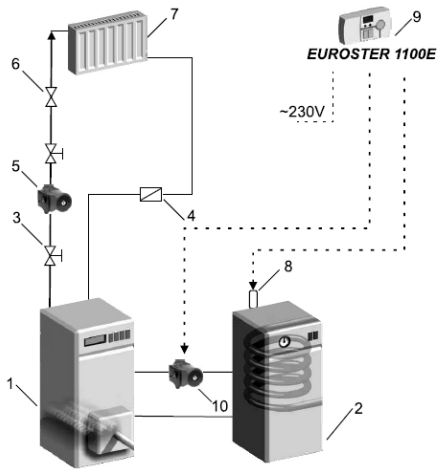
6. SHIPPING LIST

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

7. WIRING DIAGRAMS

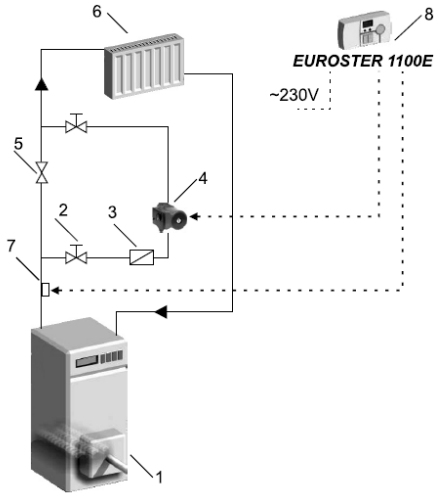
These are simplified diagrams and as such they not show all the components necessary for fully functional operation of the system.

wiring of EUROSTER 1100E 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
9. EUROSTER 1100E
10. DHW circulating pump

wiring between EUROSTER 1100E and heating water circulating pump



1. heating boiler
2. shutoff valve
3. strainer
4. heating water circulating pump
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6. heating unit - radiator
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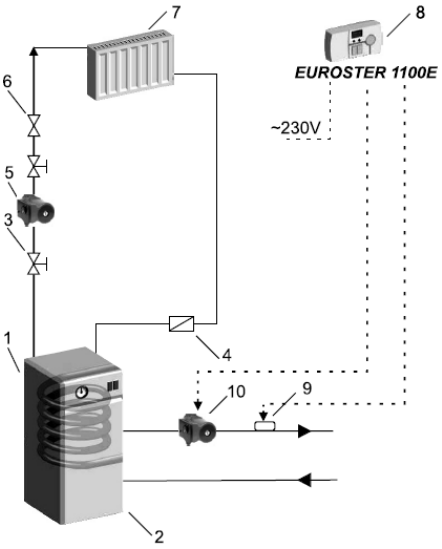
8. EUROSTER 1100E

wiring between EUROSTER 1100E and an integral hot water cylinder



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