EUROSTER UNI4

Weather-based heating system controller

MANUFACTURER: P.H.P.U. AS, Chumiętki 4, 63-840 Krobia, Poland

In order to take full advantage of the controller capabilities and ensure proper operation of the central heating system, please read this user manual carefully.

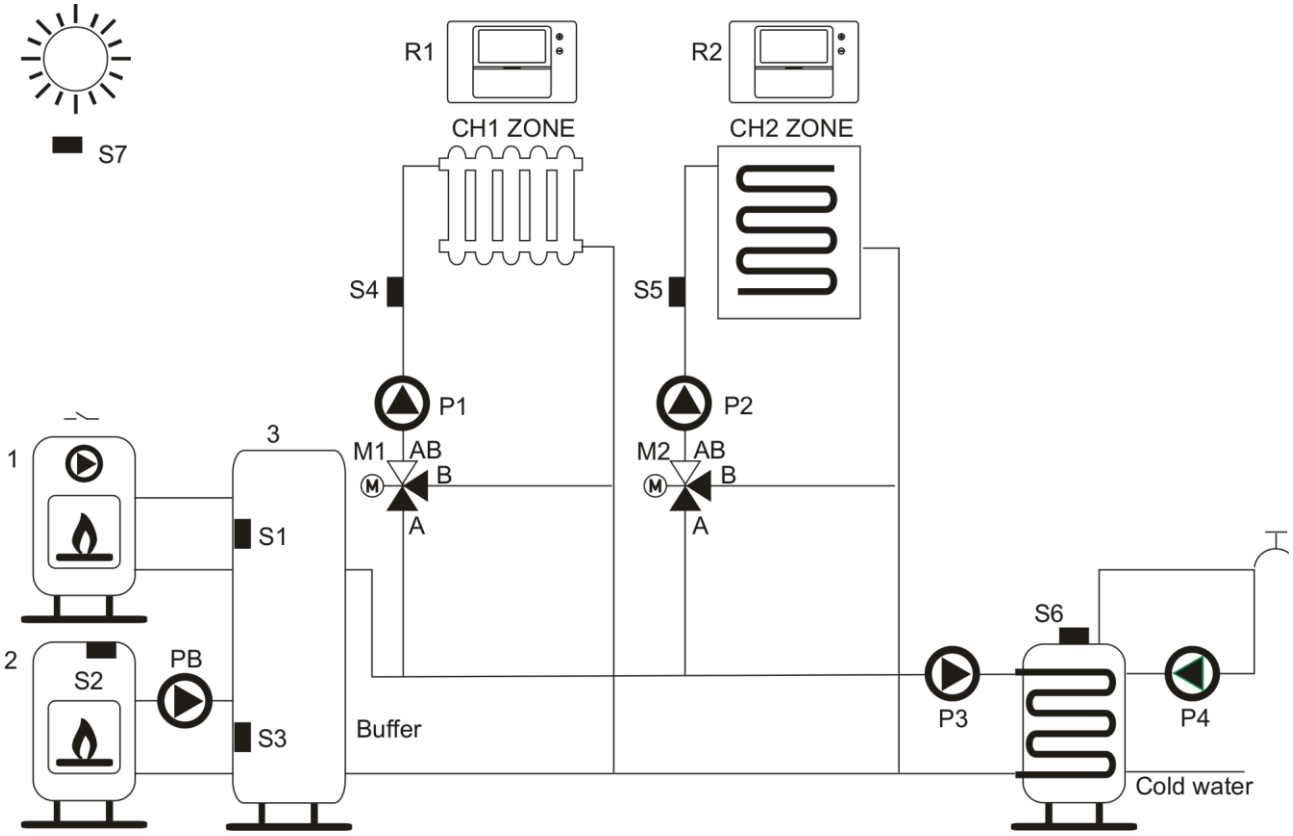
Manual version: 01.02.2021

1. APPLICATION

UNI4 is a universal controller designed to control a heating system equipped with:

- Two independent CH zones with mixing valves (e.g. for floor heating, radiator heating)
- DHW circuit
- DHW circulation circuit (time-based control)
- Heating source control
- Feeding the buffer which supplies other zones
- Ability to control cooling or heating zones with a switch-over between heating and cooling by an external contact.

Heating system diagram

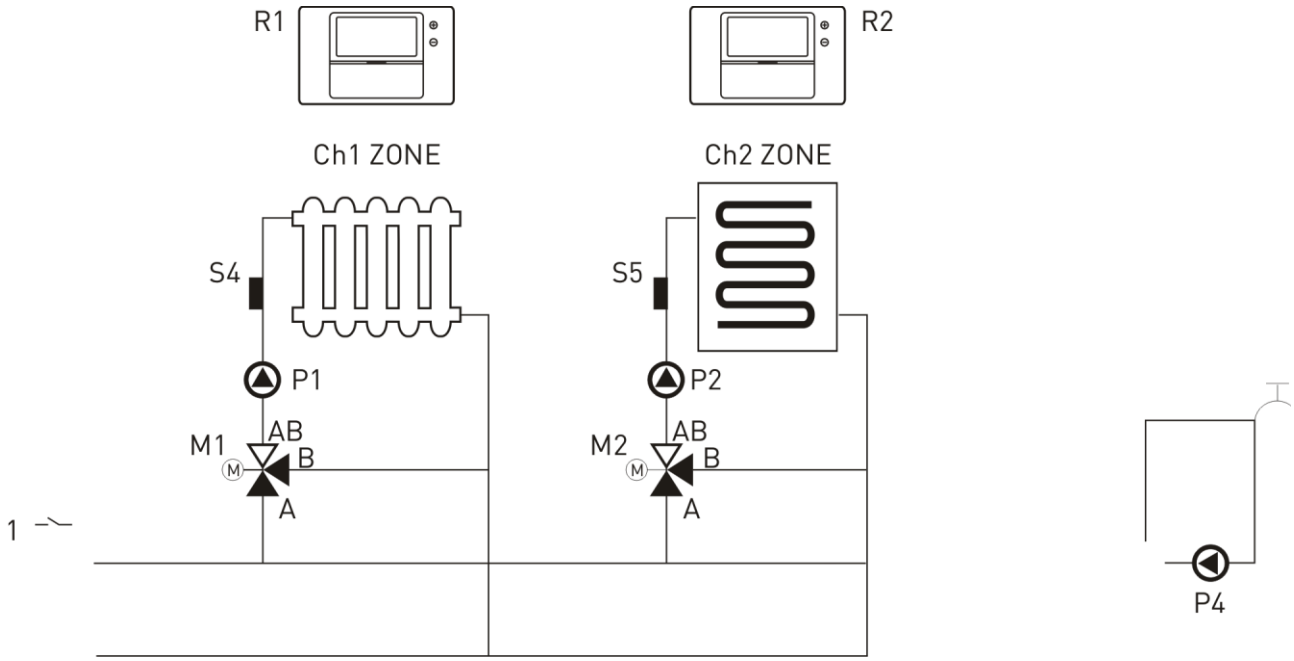


S1 – Feeding temperature sensor 1 (buffer – top)
S2 – Feeding temperature sensor 2
S3 – Buffer temperature sensor - bottom
S4 – CH1 zone temperature sensor
S5 – CH2 zone temperature sensor
S6 – DHW temperature sensor
S7 – Outdoor temperature sensor
R1 – CH1 zone room thermostat
R2 – CH2 zone room thermostat

1. Feeding source No. 1
2. Feeding source No. 2
3. Buffer tank
PB – Buffer pump (feeding no. 2)
P1 – CH1 zone pump
P2 – CH2 zone pump
P3 – DHW tank feeding pump
P4 – DHW circulation pump
M1 – 230 V 3-point actuator of the mixing valve in CH1 zone
M1 – 230 V 3-point actuator of the mixing valve in CH2 zone

Heating/cooling system diagram

In the case of active cooling, the function of the DHW tank and feeding source temperature control is unavailable!



S4 – CH1 zone temperature sensor
S5 – CH2 zone temperature sensor
R1 – CH1 zone room thermostat
R2 – CH2 zone room thermostat

P1 – CH1 zone pump
P2 – CH2 zone pump
P4 – DHW circulation pump
M1 – 230 V 3-point actuator of the mixing valve in CH1 zone
M1 – 230 V 3-point actuator of the mixing valve in CH2 zone
1. Controller output for switching on the heating or cooling device.

2. FUNCTIONS

2.1. CH zones

- Control of the CH pump and the 3-point actuator of the mixing valve
- Independent setting of temperature and weather curve for each zone
- Independent control of each zone with a room thermostat and weekly schedule
- Possibility to switch off any zone
- Manual switching between summer and winter season
- Selection of a zone operating mode if heating is not needed: by turning the pump on or off or by decreasing the temperature with a mixing valve with the pump being switched on permanently or by switching on the zone temporarily
- Cooperation with the floor heating distributors

- Switching off the heating automatically in case of outdoor temperature increase.

2.2. DHW circuit – filling the DHW tank

- Controlling the weekly schedule
- DHW priority
- Temporary limitation of DHW priority
- Disinfection of DHW circuits - with the schedule of periodic disinfection.

2.3. DHW circulation circuit

- Controlling the weekly schedule
- Time-base control (without temperature control)

2.4. Feeding

- Automatic identification of the preset temperature and control of the heating source
- Weekly schedule of the heating source operation
- Cooperation with the heat buffer
- Possible operation with two heating sources
- Possible operation without feeding temperature sensor (cooperation with heat distribution units).

2.5. Utility functions

- Control of a gas-fired boiler or other heating devices with a voltage-free output (NO/NC relay contacts)
- Alarm output (230 V 50 Hz output)
- Event log (the controller stores 15 last alarms or irregular situations)
- Supported languages: Polish, English, German
- Possibility to test each output
- Overheating protection
- Cooperation with systems with high feeding temperature (up to 110°C) – on customer's request
- Frost protection
- Anti-Stop algorithm – protection of pumps and valves against seizure.
- **Caution! The controller does not communicate with UNI2 and UNI3 controllers.**

3. USER INTERFACE

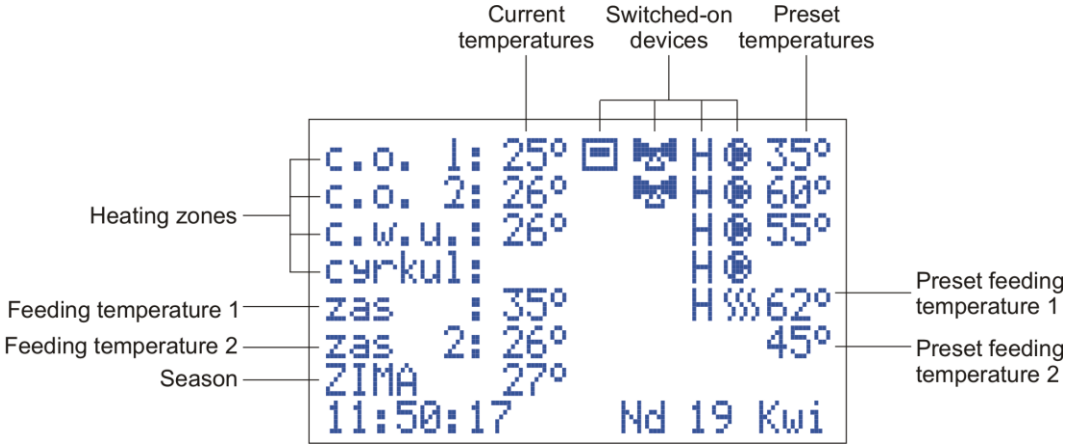
3.1. Main screen

The following information is shown on the main screen:

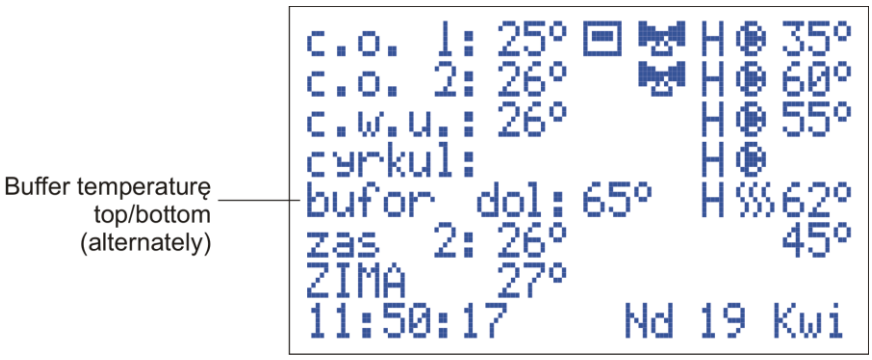
- Zone temperatures: current and preset (calculated with a weather-based algorithm)
- Active devices (pump, mixer, boiler)
- Controller status (anti-stop, disinfection, heating season: WINTER/SUMMER and others)
- Time and date.

An example screen with a description is shown below:

Additional heating source on (feeding no.2, without the buffer)



Additional heating source on (feeding no.2, with the buffer)



The symbols shown in the controller have the following meaning:

Pump operation

Mixer operation

No icon – thermostat operation off; flashing icon – thermostat operation on; active symbol - heating switched on by a room thermostat

AS Anti-Stop algorithm active

D Thermal cleansing of DHW

Main heating source active (feeding no. 1) – boiler relay output (NO-COM) shorted

P Activated DHW priority function

Additional heating source active (feeding no. 2) – voltage at the buffer pump output

AF Frost protection switched on

3.2. Multifunction knob

The controller is operated with a multifunction knob. In addition to a rotary face used to change the set value, it contains 4 buttons used for navigation (selecting between menu items: up, down, next, previous) and a confirmation button located in the center of the knob, which also clears the display of alarm warnings.

CAUTION! When changing a setting, the new value is only stored after being confirmed with the center or right button.

3.3. LED

A light-emitting diode is located on the left-hand side of the display. The colors have the following meaning:

- Green: Operation, no errors
- Red: An error has occurred
- Blue: Menu active
- Yellow: Output testing mode

3.4. Reset and restoring factory settings

To restore factory settings, press the Reset button and hold it for at least 5 s; the factory settings window will be displayed.
The options are:

- Reset – YES/NO
- Language selection
- Cooling – YES/NO
- Store/EXIT

Select "Reset", switch to YES, and confirm by selecting "Store/EXIT".

CAUTION! Restoring factory settings may lead to improper operation of the system and in extreme cases, it may lead to a failure or damage to the system.

3.5. List screens

The controller settings are arranged hierarchically, according to the zone -> parameters order. Only the basic settings are available for the user. Advanced options are included in "Settings" and are protected with an access code.

3.6. Setting screens

Adjustable parameters with comments are listed below.

3.6.1. User settings

CH1 zone

- **The preset temperature of the zone**
  It is the zone temperature maintained with the use of the mixer. When operating with the weather sensor, there are three settings (based on which the heating curve is established). When operating without the weather sensor, one setting is available.
- **Schedule**
  With the use of schedule a zone may be switched off for the selected time on selected days of the week.

CH2 zone

- Parameters identical to the CH1 zone

DHW circuit

- **DHW temperature**
  It is the tank temperature to be maintained by the controller.
- **DHW schedule**
  With the use of schedule, we may preset time to feed the DHW tank on selected days of the week.

DHW circulation circuit

- **schedule**
  With the use of schedule, we may preset the time of DHW circulation circuit operation on selected days of the week.

Heating season

Switching to the "SUMMER" season results in switching off the CH 1 and CH 2 zones, DHW circuits operate normally.
Switching to the "WINTER" season results in switching on the CH zones and DHW circuits.

Date and time

In this window, a user may enter the current date and time. Please remember that the operation of the schedules, control algorithms, and events log is only correct with the correct settings.

Output testing

Testing all outputs by switching them on and off. Provides the possibility to check the correct operation of all devices connected to the controller. After 2 minutes the controller exits the testing mode and switches to automatic operation.

Settings

Entering advanced settings (installer settings).

3.6.2. Technician's settings

The technician's settings are available after entering the access code. **The default code is "1, 2, 3".**

CAUTION! It is recommended to restore factory settings before configuring a new controller.

Settings for CH 1 zone (identical ones for CH 2 zone)

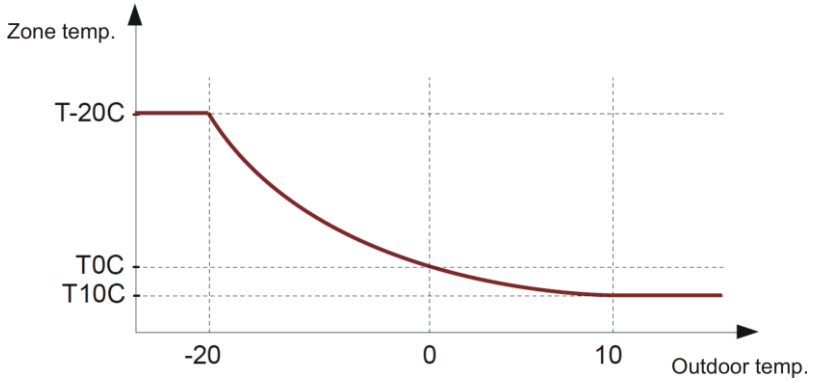
- **Switching the zone on/off**

Switching off the unused zone.

- **Mixer**
  - **Mixer dynamics**
    Determines the time of mixer response to changes in the zone temperature. An excessive value may cause frequent cycling of the mixer, whereas the insufficient value may cause slowness in achieving the preset temperature.
  - **Mixer hysteresis**
    If the measured temperature of a zone differs from the preset one by half of the value of preset hysteresis, then the mixer position is not corrected.
- **Alarm temperature**

  CAUTION! Alarm temperatures for all zones should be selected carefully. Incorrect setting of temperature level may cause improper operation or major failure of the system components.

  The alarm temperature should be preset as the maximum safe temperature for a particular zone.
- **Room thermostat**
  In this item, a user may switch off the inputs of room thermostats. In such a case the central heating will be switched on regardless of the requests of thermostats.
- **Weather compensator**
  Weather compensation provides a possibility to achieve thermal comfort regardless of external temperature. The only requirement is to connect an outdoor temperature sensor.
  After switching the weather compensation on, temperatures of the CH zones for three outdoor temperatures should be set. Based on those the controller calculates the currently required zone temperatures every 10 minutes.



CAUTION! Temperatures must meet the condition of T10ºC ≤ T0ºC ≤ T-20ºC otherwise, the control will not work properly.

- **Maintenance operation –** if a given zone does not require heating (the schedule is not selected or room thermostat contact is open) the controller will respond in the following way:
  - **stop** – the pump will be switched off and the mixer closed,
  - **time-based** – the zone will be switched on for a preset time with the preset idle time, the zone temperature will be decreased by the value of the "**Reduction**" setting,
  - **continuous** – the pump does not switch off, the mixer reduces the zone temperature by the value of the "**Reduction**" setting.

Settings for DHW circuit

- **Switching the circuit on/off**
  In this item, a user may switch off the DHW circuit if not used.
- **Hysteresis**
  It is a difference between the temperature at which the tank feeding pump is switched off and on.

- **DHW allowance**
  The "DHW allowance" parameter determines the value by which the temperature of the heating source must exceed the temperature of the tank. Setting a higher temperature ensures adequate heating capacity and compensates for the heat loss due to the imperfect insulation of pipes connecting the boiler to the tank.
  If the temperature of the heating source is not sufficiently high, then the DHW tank feeding pump is not switched on.

- **DHW priority**
  Switching on the DHW priority means that the controller switches off the CH zones for the time when DHW is heated, this way the temperature preset for the tank is achieved as fast as possible.

- **Priority operation time, priority break time**
  The time limit for the DHW priority operation prevents excessive cooling of rooms when the tank may not be properly heated in a reasonable time.
  To use this function, the priority break time must be set to a value other than zero.
  The DHW tank is being heated for the period preset by the "Priority operation time" parameter (P icon displayed), then the DHW priority is switched off for the "Priority break time" (P icon flashing in the display). Subsequently, the DHW priority is switched on again.

- **Disinfection**

  Switch on/off
  This item enables a user to switch on periodic disinfection according to the schedule.

  Schedule

  Selecting adequate days results in switching on the disinfection at 0.00.

  The proper cleansing consists in heating the DHW tank to the temperature of 70°C and flushing the pipes with hot water.
  The disinfection (D icon active in the display) may last for 2 hours maximum. If the preset temperature of the tank is reached within 2 hours, the disinfection is successful.
  If the tank fails to reach the temperature of 70°C in 2 hours, the disinfection is stopped and the message informing of unsuccessful disinfection is displayed.

  Activate
  Activates disinfection manually on a one-off basis.

- **Alarm temperature**

  If the tank is fed by another, additional heating source and the tank temperature exceeds the alarm temperature, then the controller switches on the DHW pump which cools down the tank. It is indicated with an error of DHW overheating. The pump is switched on only if the feeding temperature is lower than the preset alarm temperature of the DHW tank.
  CAUTION! When the alarm is activated please take special precautions to avoid getting burned by the domestic hot water.

Settings for DHW circulation circuit

- **Switching the circuit on/off**

  This item enables a user to switch off the circulation circuit when not used.

- **Circulation operating time** setting range from 1 to 99 minutes

- **Circulation idle time** setting range from 1 to 99 minutes

Feeding no. 1

- **S1 sensor on/off**
  Switching the feeding temperature sensor (main heating source) on or off.
  If the sensor is off, then the CH 1, CH 2 zones, and DHW circuit operate according to their operating algorithms and disregard the feeding temperature.
  If the S1 sensor is on, the following parameters are available.

- **Boiler relay output (feeding no. 1)** determines the way of boiler relay operation:
  - **AUTO –** the temperature preset for the feeding temperature sensor will be established automatically depending on the demand for heat in individual zones. The preset temperature will be determined based on the formula: the highest temperature of the CH 1, CH 2 zone, DHW circuit + the "**Allowance**" parameter
  - **TEMP –** maintains constant preset temperature on the S1 feeding sensor
    When the temperature on the feeding sensor drops by the value of the hysteresis, then the boiler relay is switched on.
- **Schedule**
  Hourly schedule of boiler operation. Provides the possibility to select the time of heating source operation. The function is handy if, e.g. the electric heating operates in the 2nd charging rate.
- **Feeding temperature** (the parameter is available with the following settings: Boiler relay output –**TEMP**) – S1 sensor temperature setting, above which the boiler relay output will be switched off.
- **Hysteresis –** the parameter determining the number of degrees by which the feeding temperature must drop below the preset temperature (or calculated in **AUTO** mode), for the boiler relay to be activated.
- **Alarm temperature**
  When the feeding alarm temperature is exceeded, the alarm algorithm is activated in an attempt to cool down the boiler.

  CAUTION! The alarm algorithm heats zones to temperatures approximate to alarm temperatures. It is important to ensure a safe level of alarm temperature for each zone.
- **Pump starting temperature**
  Above this temperature, the pumps of CH 1, CH 2 zones, and DHW circuit are activated.
- **Allowance** (the parameter is available with the following settings: Boiler relay output – **AUTO**)
  The parameter determines by how much the feeding temperature must exceed the temperature calculated by the controller for zones.

Feeding no. 2

- **S2 sensor on/off**
  Provides the possibility to switch on the support of buffer pump – the additional heating source.
- **Switch-on temp.**
  Exceeding the switch-on temperature results in switching on the buffer pump and switching off the feeding relay (boiler relay output). and
- **Hysteresis –** the parameter determining by how many degrees must the S2 sensor temperature drop below the switch-on temperature, so that the buffer pump relay is switched on.
- **Feeding alarm temperature**
  When the feeding alarm temperature is exceeded, the alarm algorithm is activated in an attempt to cool down the boiler.
- **Buffer on/off**
  When buffer operation is active, two preset temperatures for buffer heating are available:
  - Top temperature (S1 sensor) – it is a preset temperature, up to which the top part of the buffer will be heated
  - Bottom temperature (S3 sensor) – it is a preset temperature, up to which the bottom part of the buffer will be heated

  The buffer is heated by the buffer pump. The temperature at the S2 sensor must exceed the temperature of the buffer by 3°C so that the buffer pump is switched on.
  The preset top and bottom temperatures are not displayed.

Correction of sensors
Correction of temperature sensors allows to correct temperature reading errors, such as the ones resulting from improper contact between the sensor and the pipe.

Automatic operation

The function enabling automatic switch-off of the CH 1 and CH 2 zones if the temperature of the S7 sensor (outdoor sensor) exceeds the preset value of the "Switch-off temperature".
The heating will be restarted if the external temperature drops below the preset value of "Switch-on temperature".
The automatic operation mode is available when the outdoor temperature sensor is connected and WINTER season selected.

Events

The device records hazardous events. The display shows subsequently: Event number (since the installation), date, time, and comments, e.g.: 11. 19-09 14:16:38 DHW overheating

4. INSTALLATION

4.1. Connection

- Prior to the commencement of any installation works read this manual carefully! Incorrect installation and handling of the controller result in loss of manufacturer's warranty.
- Prior to mounting or dismantling the controller make sure that it is de-energized. Connection and disconnection of temperature sensors should also be performed when the device is de-energized.
- Voltages hazardous to life are present on the controller and its connections, therefore only qualified and authorized technicians may be entrusted with the installation of the controller.
- Install the controller in the circuit with proper electrical protections, in accordance with current regulations.
- The performed electric connections and cables used shall be adequate to the applied loads and must conform to all requirements.
- Do not install the controller in rooms of increased humidity, protect it against water and other liquids.
- The controller is designed to be mounted on a 35 mm DIN rail in a protective cabinet.
- Do not install any controller showing signs of mechanical damage.
- The controller is not a safety component. Additional protection devices must be used in systems prone to the risk of damage due to the failure of control systems.

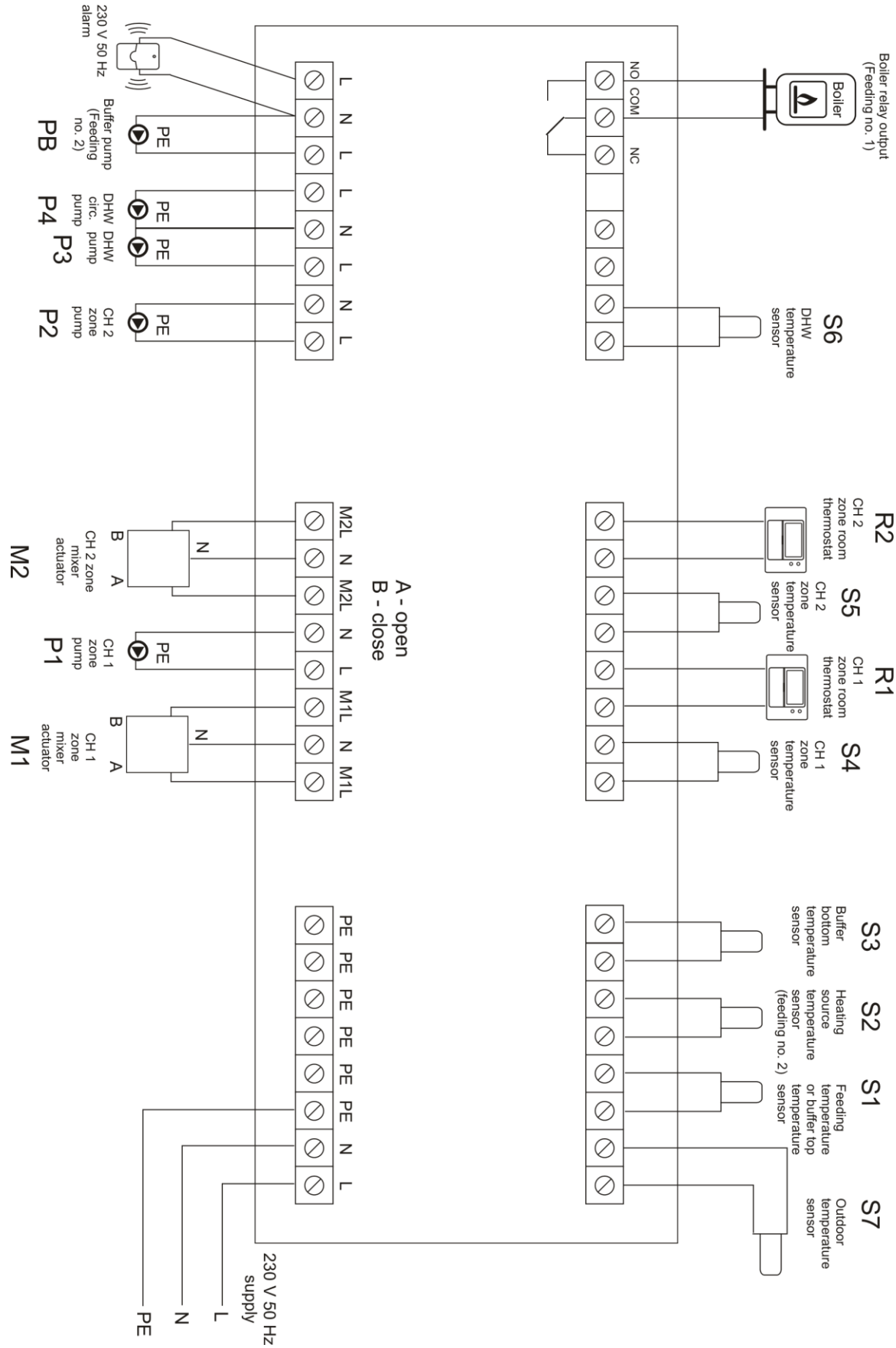
CAUTION! Euroster Uni4 controller and a heat emitting device are connected to the "BOILER RELAY" output and must be powered from the same phase of the power system.

CAUTION! When connecting power cables, pay particular attention to the correct connection of PE conductors.
The temperature sensors are not suitable to be immersed in liquids.
The controller interacts only with actuators equipped with limit switches.

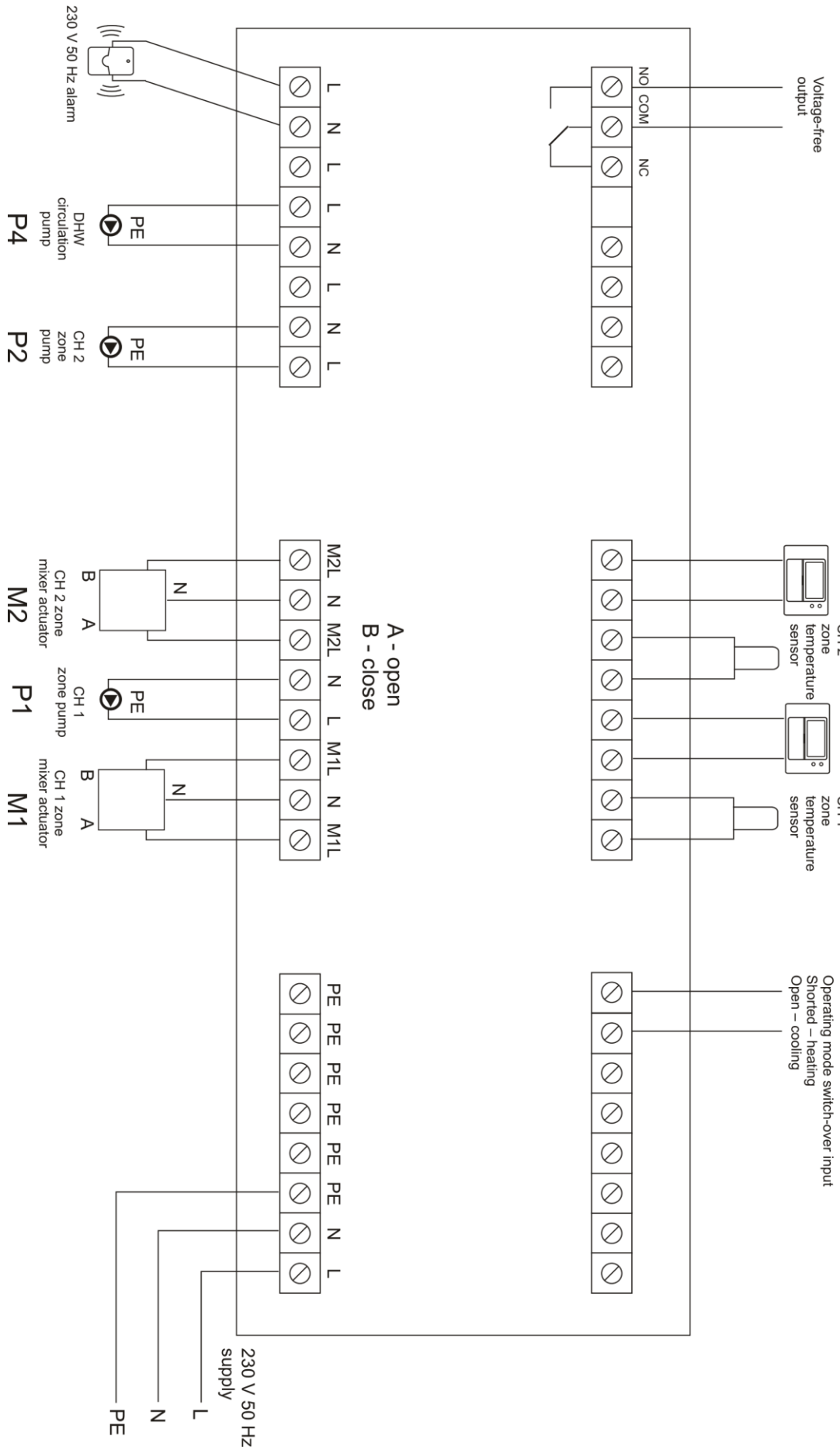
The controller must be installed in a place where ambient temperature does not exceed 40°C. All necessary cables must be laid prior to mounting the device.
Screw the electric cables to the connection blocks according to the description and drawing. Make sure to keep the proper designation of the cables. Screw the neutral conductors to N terminals, phase conductors to L terminals, and grounding conductors to PE terminals. Connect the device using a cable with a minimum diameter of 0.75mm².
The controller is equipped with seven temperature sensors. It is not necessary to connect sensors for the switched-off zones/functions.
The controller sensors may be connected in any way, with no need to keep cable polarity. At installation avoid leading the sensors parallel to live cables. Moreover, make sure to provide the proper contact with measured surfaces.
The outdoor temperature sensor should be installed in a shaded place, away from windows and doors, at a height of approximately 2 m above ground.

A room thermostat control may be switched on or off for each central heating zone. It is only allowed to use thermostats with a **voltage-free normally open (NO) contact**. It is recommended to use Euroster devices.

The connection diagram is shown below.



Connection diagram for the cooling mode.



5. CONTROLLER OPERATION

CAUTION! Once the controller is switched on the Anti-Stop algorithm is activated (pump and mixer outputs are switched on for 30 seconds). The Anti-Stop mode is repeated every two weeks, regardless of the heating season.

5.1. Feeding temperature

The UNI4 controller uses the feeding relay 1 (boiler relay output) to control the operation of the main heating source in order to achieve the required temperature at the S1 feeding sensor.
There are 2 heating source operation modes available in the "Settings" – "Feeding no.1"– "Boiler relay output" menu:

- AUTO – the preset temperature is established automatically according to the demand for heat from CH1, and CH2 zones, and DHW circuit and increased by the value of the "Allowance" setting. Additionally, the time of heating source operation may be selected.
- TEMP – feeding temperature is maintained at a constant level. Additionally, the time of heating source operation may be selected.

5.2. Heating zones

Heating in the selected zone is active if:

- a given CH zone is active,
- the heating season (WINTER) is switched on,
- the current time is selected in the schedule of the zone,
- the room thermostat demands heating or operation with room thermostat is switched off,
- DHW tank is heated or DHW priority is switched off,
- feeding temperature exceeds the required one.

CH circulation pump is switched on if heating is active and the mixer is not closed. However, if "maintenance operation" – "continuous operation" was activated, the pump operates without interruption, and the room temperature is controlled by opening or closing the mixer, taking into account the "Temperature reduction" parameter.

CAUTION!

The temperature **preset** for a given CH zone **is not displayed** if:

- The CH zone is switched off,
- The room thermostat achieved a target temperature and switched the zone off,
- There is an idle time set up in an operation schedule of the selected zone,
- DHW priority function is active.

5.3. DHW circuit

DHW tank heating is on if:

- DHW circuit is switched on,
- The current time is selected in the DHW schedule.
- The temperature of the tank is too low,
- The feeding temperature is adequate (higher than the DHW).

5.3.1. Disinfection of the DHW system

Maintaining low DHW temperature (at the level of 40ºC) facilitates the development of bacterial flora in the system. In order to perform disinfection, take the following steps:

- Switch on disinfection in the DHW menu,
- Ensure the feeding temperature is not lower than shown by the controller – heating of the tank and circulation circuit starts,
- Open the taps and flush the system with hot water (take necessary precautions against possible burning).

5.4. DHW circulation

The circulation circuit is active, when:

- The circulation circuit is switched on,
- The current time is selected in the circulation schedule
- The system is being disinfected.

The circulation pump operates according to the preset operating and idle times. Operation based on the temperature sensor readout is not possible.

5.5. Alarm output

The alarm output is used to connect an additional, external alarm indicator. In case of sensor damage, zone overheating, or other errors, voltage is supplied to the alarm output.

CAUTION! The alarm indicator must be adjusted to the network voltage of 230 V.

Simultaneously, appropriate information with the time of error will be displayed.

5.6. Boiler Relay Output (Feeding no.1) – voltage-free

Boiler Relay Output is used for switching on the main heating source.
The feeding no. 1 sensor (S1) control may be switched off, then the controller does not affect feeding temperature. The zones will operate according to their operating algorithms.

In such a case the temperatures of S1, S2, S3 sensors are not shown and are not required to be connected to the controller.

CAUTION! When the S1 sensor is deactivated, operating the additional feeding source (feeding no. 2) is unavailable, the control of buffer feeding is also switched off.

In the operating mode with feeding sensor S1 switched off, the boiler relay output status depends neither on the feeding temperature nor on the CH zone temperatures. This output is switched on if heating of any zone is required. It is switched off when a gap in heating is preset in the schedules or during operation with room thermostat (when thermostat output is disconnected after reaching the preset temperature in rooms).

5.7. Buffer Pump Output (Feeding no.2) – voltage type

This output is used to control the buffer pump – the pump of additional heating source.
If at the S2 sensor the temperature exceeds the preset "Switch-on temperature" parameter, then the boiler relay is switched off and the buffer pump is activated.

Operation with the heat buffer

Heating source No. 2 is used for feeding the buffer. The temperature of this heating source (sensor no. 2) must be higher than the preset "Switch-on temperature" and by 3°C higher than the bottom and top temperature of the buffer.
The buffer is fed until both preset temperatures, the top and the bottom, are achieved.

If the temperature at the S2 sensor drops and the buffer pump is switched off, then the main heating source is switched on (boiler relay output), to continue feeding the buffer until the preset temperatures – the top and the bottom one – will have been reached.

5.8. Cooling

UNI4 controller handles control of the cooling system in the summer season, and the heating system in the winter season. In the cooling mode the control of DHW, and feeding source no. 1 and no.2 is not active, and the weather-based control does not work.

Switching on the cooling system: press and hold the RESET button until the settings window is displayed. There is the "Cooling" item available in line 3, select YES and confirm.

From this moment on the switch-over between cooling/heating mode is executed by shorting S3 input:

- **Cooling – open**
- **Heating – shorted**

Separate temperature settings ad separate operation schedules are provided for heating and cooling mode.

6. POSSIBLE ERRORS IN THE CONTROLLER OPERATION

6.1. A selected zone is not heating – closed valve or inactive pump

Check:

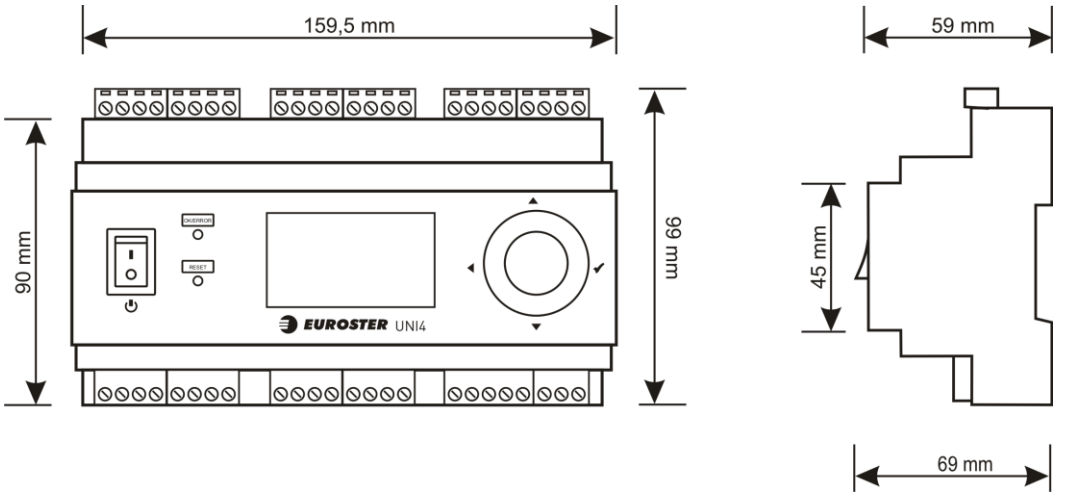
- Whether the heating season is switched on,
- Whether the correct date (day of the week) and time is set,
- Whether heating is active in the schedule for the current day of the week and time,
- In the system with a weather compensator – whether the outdoor temperature reading is correct and whether the temperatures are set correctly,
- Whether DHW priority heating is switched off,
- In the system without room thermostat – whether it is switched off in the controller,
- In the system with a room thermostat – whether it is switched on and correctly connected to the controller,
- Whether the mixer is not connected inversely and whether it is not jammed,

6.2. A selected zone is subject to overheating

Check:

- Whether the valve is not blocked,
- Whether the mixer actuator is operating,
- Whether the actuator cables are connected properly,
- The value of mixer dynamics.

7. DIMENSIONS



8. TECHNICAL DATA

Supply: 230 V 50 Hz
Maximum power consumption: 4 W
Maximum output load: 100 W (each output)
Temperature adjustment range:

- CH zones from 5°C to 90°C
- DHW circuit from 5°C to 90°C

Temperature measurement range: -30°C...120°C
Temperature control and reading accuracy: 1°C
Operation temperature range: 0...40°C
Storage temperature range: 0...55°C
Ingress protection rating: IP20, Protection Class II
Color: gray, RAL7035
Mounting method: 35mm DIN rail-mounted, inside electrical cabinets
Alarm output: 230 V 50 Hz
Boiler output: voltage-free type, NO/NC, maximum load: 4A 230V 50Hz
Pump power outputs: 230 V 50 Hz
Power outputs of mixer actuators: 230 V 50 Hz
Controller weight: 545 g

9. KIT CONTENTS

UNI4 CONTROLLER
Outdoor temperature sensor (5 m) – 1 piece
S1, S3 Feeding temperature sensor (1.5 m) – 2 pieces
Tank temperature sensor (2.5 m) – 1 piece
S2 feeding temperature sensor (2.5 m) – 1 piece
S4, S5 CH zone temperature sensors (1.5 m) – 2 pieces
Sensor hose clips (6 pieces)
Power cable (1.5m) – 1 piece
Screw anchors – 4 pieces
User Manual with Warranty Certificate

10. SIMPLIFIED DECLARATION OF CONFORMITY

P.H.P.U. AS AGNIESZKA SZYMAŃSKA-KACZYŃSKA hereby represents that the type of Euroster UNI4 equipment conforms to the following directives: 2014/35/EU (LVD), 2014/30/EU (EMC), 2011/65/EU (RoHS). The complete text of the Declaration of EU conformity is available at the following Internet address: www.euroster.pl.

11. ELECTRONIC WASTE MANAGEMENT INFORMATION

This product is designed and manufactured from high-quality materials and components suitable for reuse.
The crossed-out wheelie bin symbol located at the product means that the product is subject to selective collection in accordance with the provisions of the Directive 2012/19/EU of the European Parliament and the Council.

The product contains an internal battery subject to the selective collection in accordance with the provisions of the Directive 2006/66/EC of the European Parliament and the Council.
Such marking informs that the electrical and electronic equipment and batteries may not be disposed of together with other household waste after their service life. The user is obliged to take the used devices and batteries to a point of collection of waste electrical and electronic equipment and batteries. The entities collecting such equipment, including the collection points, shops, and municipal entities, set up an appropriate system enabling the handover of such equipment and batteries. The proper disposal of waste equipment and batteries contributes to the prevention of consequences hazardous to the health of persons and nature, resulting from the possible presence of hazardous components in the equipment and batteries and inaccurate storage and processing of such equipment and batteries. The guidelines regarding the disposal of the batteries are included in the user manual.
A household plays an important role in contributing to the reuse and recovery of waste equipment including recycling. The attitudes influencing the protection of the common good of a clean environment are shaped at this level. Households are also one of the larger users of small equipment and its rational management at this stage impacts the recovery of recyclables. Inaccurate disposal of this product may be penalized in accordance with national legislation.

WARRANTY CERTIFICATE
EUROSTER UNI4 CONTROLLER

Warranty terms:

1. The warranty is valid for 24 months from the device sale date.
2. Rights under the warranty are exercised within the territory of the Republic of Poland.
3. The claimed thermostat together with this warranty certificate must be supplied to the seller or directly to the manufacturer by postal services of Poczta Polska.
4. Warranty claims shall be processed within 14 business days upon the day when the manufacturer received the claimed device.
5. The device may be repaired exclusively by the manufacturer or by a party clearly authorized by the manufacturer.
6. Warranty becomes void in case of any mechanical damage, incorrect operation, and repairs made by unauthorized persons.
7. This consumer warranty does not exclude, restrict nor suspend any right of the buyer if the product does not meet any of the sale contract terms.

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Sale date	Serial number / date of manufacture	Stamp and signature	Service: Phone No. (+48) 65-57-12-012

The business entity that issued this Warranty Certificate is:
P.H.P.U. AS Agnieszka Szymańska-Kaczyńska, Chumiętki 4, 63-840 Krobia, Poland