

EUROSTER Q1E

Wired, daily room thermostat fed with 230V 50Hz voltage
for all types of heating and air-conditioning devices



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

In order to take full advantage of the thermostat capabilities please read this installation and operation manual carefully.

This manual is intended for 25.01.2015 version of thermostat

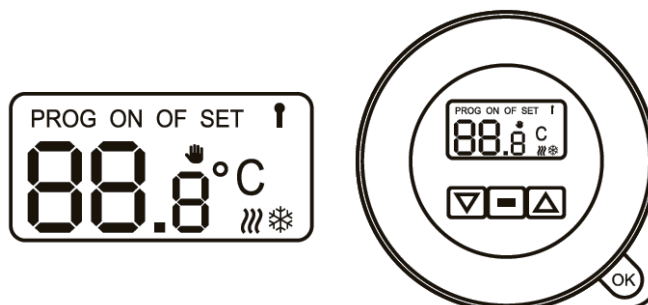
1. THERMOSTAT APPLICATION

Euroster Q1E is a state-of-the-art thermostat designed for controlling temperature in living and utility rooms within temperature range of: 5°C...45°C. It is used to control the operation of CH boiler and other components of a heating system. It controls electrical equipment, floor heating and air-conditioning systems. The thermostat is equipped with a wide range of useful functions, innovative daily programming and temperature control with an accuracy of 0.2°C. It enables easy control of ambient and floor temperature. If needed, **Euroster Q1E** may control a heating device in the following three options of temperature measurement:

- ambient temperature measurement with only the internal sensor used,
- floor temperature measurement with only the floor sensor connected,
- ambient temperature measurement with simultaneous floor temperature limitation with both temperature sensors connected.

2. VISIBLE ELEMENTS

2.1. Displayed signs and icons



- 21.3°C — current temperature measured by a temperature sensor
- "|||" "❄", red LED — turning an output on, in a heating or cooling mode adequately
- PROG ON — the programming mode is active
- PROG OFF — quit the programming mode
- PROG — operation with a stored program
- 🖐 — operation with a temporary temperature setting
- SET — setting mode active
- OFF — turning the thermostat off
- LO — discharged batteries indication
- "↑" — floor sensor connection

2.2. Functions of the buttons

- “▲”, “▼” — increasing/decreasing temperature and preset values
- OK — selecting settings and quitting modes

3. INSTALLATION

3.1. Safety rules

ATTENTION!

- **It is necessary to read this user manual carefully prior to the commencement of installation works.**
- **Prior to mounting or dismantling the thermostat make sure that the heating system is de-energized.**
- **Dangerous voltages, hazardous to life, may be present on the thermostat and its cables, therefore only qualified technician holding authorization for such works may be entrusted with the installation of thermostat.**
- **Install the thermostat 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 thermostat in rooms of increased humidity, protect it against water and other liquids.**
- **The thermostat is designed for installation in flush back box.**
- **Do not install any thermostats showing signs of mechanical damage.**
- **The thermostat 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.**

ATTENTION!

The thermostat has an electronic switch, which does not guarantee a safe de-energizing of cooperating equipment. In particular connection and disconnection of a floor sensor should be performed when the thermostat is de-energized.

ATTENTION!

Euroster Q1E thermostat and a heat emitting device must be powered from the same phase of the power system.

ATTENTION!

The thermostat will get switched on after approximately one minute upon being energized.

3.2. Proper place of installation

The thermostat is designed for indoor mounting in a flush back box at a height of approximately 1.5 m above the floor.

Avoid places with strong sunlight, near heating or cooling devices, situated directly by the doors, windows and other similar locations, where the temperature measurement could be easily disturbed by external conditions.

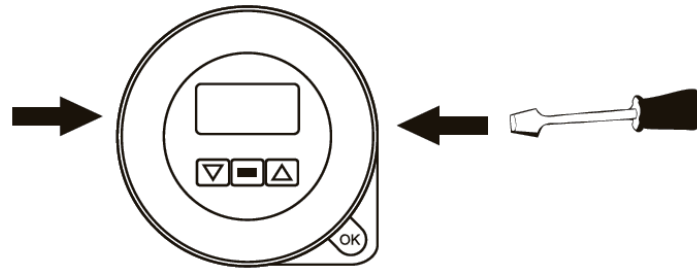
Avoid places with poor air circulation, e.g. behind furniture.

Avoid moist places due to the negative effect of moisture on the service life of device.

3.3. Opening the thermostat

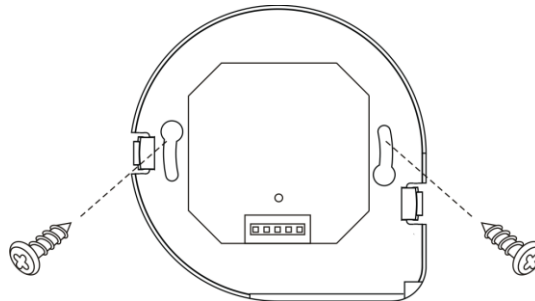
The thermostat housing consists of two main parts — a base with a connector for cables and a front panel with an LCD. Thermostat components are joined together with a connector and two latches.

In order to open the thermostat press one of the hooks on the side edge of the thermostat with a flat screwdriver, then press the other one. Carefully separate the front panel and the base while paying attention to the connector.



3.4. Installing the thermostat

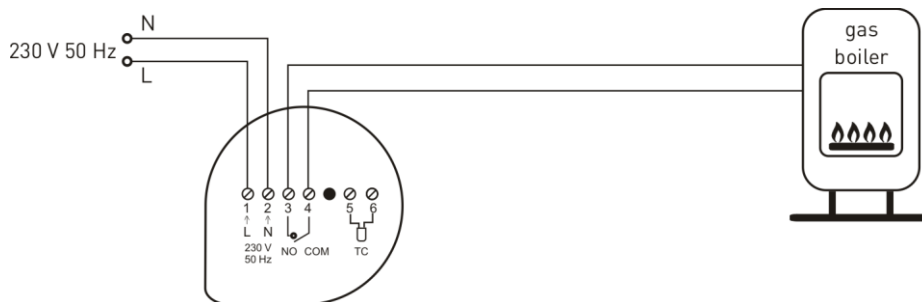
Lead all necessary cables to the flush back box prior to mounting the thermostat. Connect the thermostat with a stranded wire with a diameter adequate to the switched load. Thermostat mounting holes enable installation in standard 60 mm deep flush back boxes. Connect the power cables to terminals 1 and 2, L phase and N neutral cable appropriately. Connect the controlled device to terminals 3 and 4, in accordance with the figure below. When the installation is completed, check cables for proper connection, screw the thermostat base to the flush back box and place the thermostat front panel while paying attention to proper assembly of the connector.



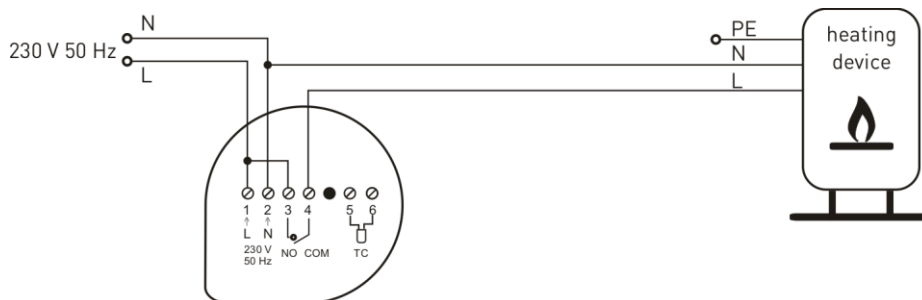
3.5. Sample Connection Diagrams

The following diagrams are simplified and do not cover all the elements necessary for the correct installation.

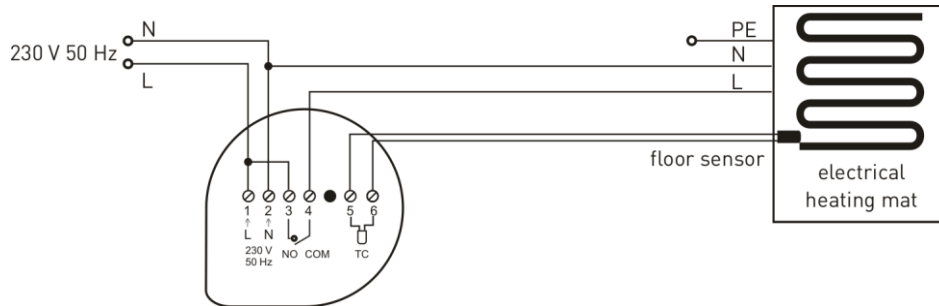
In a system with a gas boiler




In a heating/cooling system



In a floor heating system








3.6. Floor sensor connection

Screw the floor temperature sensor to terminals No. 5 and 6 according to the above sketch. It is not necessary to keep the cable polarization. After selecting S1 or S2 operation mode, the floor sensor connection icon — “” will be displayed.

ATTENTION! The floor temperature sensor is not included in the basic kit. Please order it separately.

4. THERMOSTAT CONFIGURATION

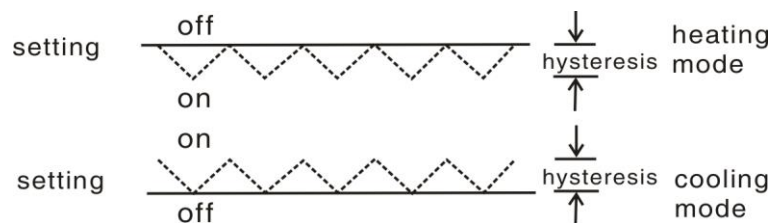
4.1. Setting mode

Press and hold OK and “” buttons for approximately 3 seconds to enter the setting mode. Configure the thermostat in the following way: choose a required parameter with “”, “” buttons, use OK button to enable the introduction of changes and change the value using “”, “”, then confirm the modified value with OK button. The following parameters may be changed:

1. Hysteresis — H

It is a difference between current and preset temperature being allowed by the thermostat. It determines the accuracy of room temperature control. Euroster Q1E enables selecting the following values of hysteresis: 0.2°C/0.5°C/1°C/2°C or 5°C.



The sketch depicts the effect of hysteresis



2. Sensor calibration — C

It is a value added to or subtracted from the measured temperature value. It enables correction of the displayed temperature. Calibration range: -5°C... +5°C with 0.2°C step of the change.

3. Operation mode — t

It enables to choose the thermostat operation in heating (“” icon) or cooling (“” icon) mode.

4. Selection of sensor — S

This option enables to select a temperature sensor to cooperate with the thermostat. There are three operation modes available:

“S 0” — the thermostat measures and maintains the temperature based only on internal sensor operation

“S 1” — the thermostat measures and maintains the temperature based only on external sensor (the one with cable) operation

“S 2” — the thermostat measures the temperature of both sensors; maintains the temperature of an internal sensor, and the external sensor acts as a temperature limit.

5. Floor temperature limit value (active only in S2 mode) — L

This parameter enables setting the maximum safe floor temperature. When this temperature is reached, the relay is switched off.

6. ESC

Selecting this setting and confirming it with OK button enables quitting the setting mode and restoring the operation according to the settings. After 15 seconds of idleness the thermostat quits the setting mode automatically.

All settings are listed below:

Icon	Meaning	Value Minimum	Maximum value	Default value
H	Hysteresis	0.2	5	0.2
C	Sensor calibration	-5	5	0.0
t	Operation mode	Cooling ❄	Heating)))	Heating)))
S	Sensor	0	2	0
L	Temperature limit	5	45	45
ESC	Escape the setting mode	-	-	-

5. THERMOSTAT OPERATION

5.1. Setting temperature

Use "▼", "▲" buttons to set the desired temperature value. Pressing one of the buttons for the first time will make the current temperature preset blink and repeating the activity will cause the temperature value decrease or increase adequately with 0.2°C step of the change. The longer the button remains pressed, the quicker the values change. Confirm the temperature change with OK or wait until the set value stops blinking and is stored.

5.2. Programming and program canceling mode

One or two temperatures entered by the user may be stored daily in a program. The preset values are stored with an accuracy of one minute. When operating with a program, the thermostat switches the stored temperatures regularly at their setting times.

Enter the programming mode by pressing OK for approximately one second, PROG ON sign appears on the display, then enter the temperatures at the adequate times. This mode is quit after:

- entering two temperature values. The preset temperatures with their setting times are stored as a program. The displayed PROG sign signals the end of programming cycle. The program is then implemented regularly on all days of the week.
- a lapse of 24 hours. If one temperature value is entered, the thermostat maintains this temperature. If no temperature is entered, the programming mode is canceled.
- holding OK for 1 second twice. Pressing it for the first time enables to turn on programming mode again and pressing it for the second time enables to leave the programming mode and erase the previous program. Leaving the programming mode is signaled by displaying PROG OFF sign for approximately one second.

Example:

Switch to the programming mode (PROG ON). First temperature is set to 8.00 am, e.g. 21°C, the second one is set to 4.00 pm, e.g. 19°C. Entering the second temperature completes programming. The thermostat quits programming mode (PROG) automatically. The next day the thermostat will maintain the temperature of 21°C from 8.00 am to 4.00 pm and 19°C from 4.00 pm to 8.00 am.

5.3. Temporary change of temperature

During the thermostat operation with the stored program, it is possible to introduce changes of temperature using "▼" and "▲" buttons. However, the changed value will be valid only until the next hour stored in the program. For the time of temporary operation with changed temperature 🖐 icon is displayed.

If you want to restore operation with the stored program, use "▼" "▲" buttons to set temperature at which 🖐 icon disappears.

5.4. Operation with two temperature sensors

The function of floor temperature limitation is active when two sensors are connected and S2 mode is selected. If the preset temperature is reached at any sensor, the receiver is turned off. The floor temperature limit control operates with fixed hysteresis of 5°C. The device is turned

on again when the temperature drop reaches the hysteresis value. Overview of the current temperature of the floor sensor is possible in test mode.

5.5. Turning the thermostat off

In order to switch the thermostat off, hold "▼", "▲" buttons for 3 seconds. OFF sign is displayed. The relay is turned off.

Hold the same buttons for 3 seconds again in order to switch the thermostat on. In case of loss of power, the program is stored for approximately 10 hours, and the parameters of setting mode are not deleted.

5.6. Indication of sensor damage

According to the type of damage there is a "Sh" or "OP" sign displayed adequately for shortage and opening (break) of the sensor. If the floor sensor is damaged, then blinking "!" icon is displayed additionally.

6. TEST MODE

Test mode enables checking the main parameters of the thermostat. In order to enter the test mode press and hold OK and "▲" buttons for approximately 3 seconds. Choose the desired test with "▼", "▲" buttons and in case of testing a relay use OK button to change its status. The following tests are available:

1. LCD test

It enables checking if all icons used in the thermostat are displayed correctly.

2. relay test

It enables checking the operation of switching element (relay).

3. internal sensor test

It indicates the current temperature measured by the ambient temperature sensor. Temperature is read on an ongoing basis.

4. external sensor test

Indicates the current temperature measured by the floor temperature sensor. Temperature is read on an ongoing basis. The absence of sensor is indicated by displaying "---" icon.

5. software version

The record shows the number of software installed in the thermostat, e.g. o 1.3.

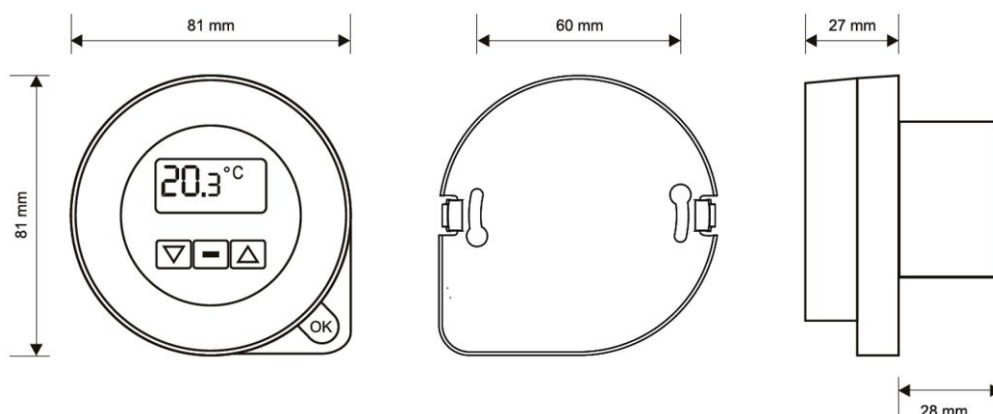
6. ESC

Confirming this setting with OK button enables quitting the test mode and restoring operation according to the settings. After 15 seconds of idleness the thermostat quits the test mode automatically.

7. MAINTENANCE

Do not use solvents and aggressive detergents to clean the thermostat, since they may damage the surface of the housing and the display. Clean the thermostat housing with a soft cloth.

8. DIMENSIONS



9. TECHNICAL DATA

Controlled device	heating/ air conditioning systems
Supply voltage	230V 50 Hz
Thermostat output	relay, voltage-free type, SPST (normally open)
Maximum load	10A 230V 50 Hz
Temperature measurement range	-9.9°C...+99°C
Temperature control range	+5°C...+45°C
Temperature control accuracy	0.2°C
Temperature reading accuracy	0.1°C
Hysteresis range	0.2°C/0.5°C/1°C/2°C/5°C
Visual signalization	LCD
Operating temperature	+2...+45°C
Storage temperature	0°C...+50°C
Ingress protection rating	IP20, class II
Color	white
Mounting method	wall-mounted, flush back box 60 mm
Thermostat weight without batteries	137 g
Warranty period	2 years
Thermostat class	I
Thermostat contribution to the energy efficiency of room heating	1%

10. KIT CONTENTS

- Euroster Q1E thermostat
- Installation and Operation Manual with Warranty Certificate

11. SIMPLIFIED DECLARATION OF CONFORMITY

P.H.P.U. AS AGNIESZKA SZYMAŃSKA-KACZYŃSKA hereby declares that the type of EUROSTER Q1E 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

ELECTRONIC WASTE MANAGEMENT INFORMATION



This product is designed and manufactured from high quality materials and components suitable for reuse. If the equipment, packaging, user manual, etc. is provided with a crossed-out wheellie bin symbol, it means that the product should be selectively collected in accordance with the Directive 2012/19/EU of the European Parliament and of the Council.

Such marking informs that the electrical and electronic equipment may not be disposed of together with other household waste after their service life. The user is obliged to take the used devices to a point of collection of waste electrical and electronic equipment. The entities collecting such equipment, including the collection points, shops, and municipal entities, set up an appropriate system enabling handover of such equipment. The proper disposal of waste equipment contributes to prevention of dangerous consequences to nature and human health, resulting from the possible presence of hazardous components in the equipment and from inaccurate storage and processing of such equipment. Selective collection contributes to the recovery of materials and components used for manufacturing the equipment. A household plays an important role in contributing to reuse and recovery including recycling, of the waste equipment. The attitudes influencing protection of the common good of 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 Q1E thermostat**

Warranty terms:

1. The warranty is valid for 24 months from the device sale date.
2. Claimed thermostat together with this warranty certificate must be supplied to the seller.
3. Warranty claims shall be processed within 14 business days from the date the manufacturer has received the claimed device.
4. The device may be repaired exclusively by the manufacturer or by other party clearly authorized by the manufacturer.
5. Warranty becomes invalidated in case of any mechanical damage, incorrect operation and/or making any repairs by unauthorized persons.
6. 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: tel. (+48) 65-57-12-012
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Business entity that issued this warranty certificate is:
P.H.P.U. AS Agnieszka Szymañska-Kaczyñska, Chumiętki 4, 63-840 Krobia, Poland