



version: 18.07.2014

### I. SAFETY RULES AND MAINTENANCE

#### DANGER!

- Please read this manual carefully prior to installing the thermostat.
- Voltages hazardous to life may be present on the thermostat output cables, therefore only qualified technicians may install the thermostat.
- Do not install any thermostats showing signs of mechanical damage.

#### **1.** Control of the thermostat

Do not use the thermostat in rooms with excessive humidity, significant dustiness or with presence of caustic or flammable vapors.

If necessary wipe it carefully with a damp cloth.

Do not use strong detergents, solvents or any other cleaning liquids or powders. Avoid contact with water or other liquids.

Do not lubricate, grease or apply any other preservatives.

Protect against high and freezing temperatures.

Movable elements should operate easily and do not need any force to be applied on them under any circumstances.

In case any problems occur with proper operation of the thermostat, please contact your technician or Euroster service.

#### 2. Batteries.

#### Low batteries indication

If the icon **manual** appears on the display, it is necessary to replace the batteries. It is recommended to replace the batteries with new ones prior to each heating season.

#### Use alkaline batteries only.

# Do not use rechargeable batteries because their voltage is 1.2 V, which does not ensure the proper operation of the thermostat.

#### **Replacement of batteries**

The battery compartment cover is on the bottom of the thermostat.

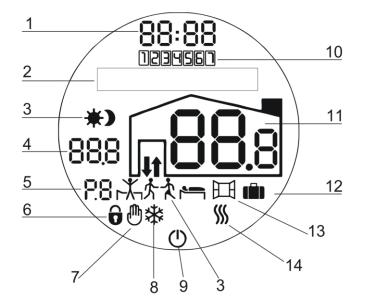
Secure the cover with your hand not to let the batteries fall out when pulling out the cover. Pull the cover to the right.

When replacing the batteries, pay particular attention to their polarity.

### **II. USER FUNCTIONS**

#### **1. CONTROL AND MAINTENANCE OF THE THERMOSTAT**

#### a. Display icons and operating window



- 1. Hour
- 2. Text box
- 3. Current setting (range) icon
- 4. Preset temperature of the current range or after entering the menu item no.
- 5. Range no. (e.g. P1 first range of the current day (moment) is effective)
- 6. Lock of access to the thermostat functions
- 7. Manual (one-off) temperature or operating mode setting
- 8. Air conditioner in operation
- 9. Thermostat switched off temperature control suspended indefinitely
- 10. Current weekday (e.g. 1 Monday, 7 Sunday)
- 11. Current room temperature
- 12. Vacation mode
- 13. Airing mode
- 14. Heat emitting device in operation

Standard appearance of the operating window:



#### b. Knob and button

- pressing OK button for a short time backlights the display and unlocks the knob
  - holding OK button longer (over 1 s) results in:
    - entering the main menu (release the button when SETTINGS is displayed),
      - deleting manual setting,
      - switching active modes off,
    - exiting the menu item, and after holding OK button longer again exiting the menu and returning to the operating window
- turning the knob enables adjusting the temperature or selecting the menu item

If the menu is not exited manually, then after 30 s of idleness the thermostat automatically returns to the operating window.

#### c. Text box

Displays the names of the menu elements and messages particularly important for the operation of the thermostat.

#### d. Turning the thermostat off

Hold OK until the thermostat is switched off.

Switching the thermostat off suspends the temperature control indefinitely – a clock, weekday, current room temperature and icon are displayed. In order to restore temperature control, hold OK for over 1 s.

#### e. Temperature sensors

The thermostat may control the room temperature based on the following measurements:

- of the built-in sensor,
- of a cabled sensor only,
- of the built-in sensor with floor temperature limit (from 2 sensors).

Detailed information, see: technician's menu.

### 2. BASIC SETTINGS

The main menu consists of three basic items:

• MODES (1)

- PROGRAMS (2)
- SERVICE (3)

#### The menu items with numbers assigned to them are listed in the table below.

ITE M NO.	MENU ITEM	ITEM NO.	MENU ITEM
1	MODES	101	
		102	AIRING $\square$
		103	PARTY 先大
		104	HOLD
		105	ECO
		106	EXIT
2	PROGRAMS	201	DAY
		202	EDIT
		203	СОРҮ
		204	EXIT
3	SERVICE	301	OPERATING TIME
		302	MANUAL SETTING
		303	MODES
		304	YEAR TIME
		305	ALGORITHM
		306	LEARNING
		307	HEATING IN ADVANCE
		308	ANTI-FREEZE PROTECTION
		309	CORRECTION OF SENSORS
		310	PIN
		311	RESETTING
		312	AIR CONDITIONING
		313	EXIT
4	EXIT		

#### The following section describes the most useful functions for users.

#### a. Date and time

In order to set the time and date, enter SERVICE (item 3) menu and select YEAR TIME (item 304).

Select digits of the current date and hour, and confirm each of them subsequently. The following is set respectively:

- last two digits of year,
- month
- day
- hour
- minutes

After confirming minutes, the thermostat updates the entered date and the service menu may be exited or other functions may be selected.

#### b. Factory-set ranges

The thermostat is provided with the factory-programmed ranges, which may be freely adjusted and deleted. In case of resetting (item 311) all current ranges are replaced with the factory settings.

Heating:	Cooling:
Mon-Thu	Mon-Fri
P1 21°C 06:00 am - 08:30 am	P1 23°C 06:00 am – 08:30 am
P2 18°C 08:30 am - 04:00 pm	P2 28°C 08:30 am – 03:00 pm
P3 21°C 04:00 pm – 11:00 pm	P3 22°C 03:00 pm – 11:00 pm
P4 17°C 11:00 pm – 06:00 am	P4 25°C 11:00 pm – 06:00 am
Fri	Sat-Sun
P1 21°C 06:00 am - 08:30 am	P1 23°C 06:00 am – 11:00 am
P2 18°C 08:30 am - 04:00 pm	P2 22°C 11:00 am – 04:00 pm
P3 21°C 04:00 pm – 11:00 pm	P3 23°C 04:00 pm – 11:00 pm
P4 17°C 11:00 pm – 08:00 am	P4 25°C 11:00 pm – 06:00 am
Sat	
P1 21°C 08:00 am - 11:00 pm	
P2 17°C 11:00 pm – 08:00 am	
Sun	
P1 21°C 08:00 am – 11:00 pm	
P2 17°C 11:00 pm – 06:00 am	

#### c. Learning

The learning mode enables automatic storing of periodically repeated manual temperature settings. Based on them the thermostat creates ranges with suitable temperatures. It enables avoiding laborious programing. Based on manually input temperature settings the thermostat creates their time ranges. Separate ranges are created for weekdays (Mon-Fri), separate for weekends (Sat-Sun) and for single days of the week when a given temperature is set on the same day for two subsequent weeks (e.g. the same time on two subsequent Mondays).

The time when the temperature was set and the temperature itself do not have to be exactly the same. For a full description see: Section II. Advanced functions

# In order to activate the learning mode, enter SERVICE (3) menu / LEARNING (item 306), select: YES and confirm.

#### d. Heating in advance 👫 👫

Heating a room in advance, which enables reaching the preset temperature on required time

# In order to activate heating in advance, enter SERVICE (3) menu / HEATING IN ADVANCE (item 307), select: YES, then option: COMPLETE or LIMITED and confirm.

For a full description see: Section II. Advanced functions

#### e. Operation algorithms

Two operational options of activating the heating (cooling) algorithm are available: HYSTE-RESIS or PWM.

In order to select between them, enter SERVICE (3) menu / ALGORITHM (item 305). Select HYSTERESIS or PWM accordingly and confirm.

Hysteresis: turning the heating (air-conditioning) device on is based only on a difference between the preset and current temperature.

**PWM** is a more advanced method of achieving the preset temperature, thus it requires setting three operating parameters. It is recommended to have them selected by a technician.

In order to avoid large temperature fluctuations when there is an increased inertia of the heating system, it is preferable to select the PWM algorithm, as it does not allow for significant cool down of the room, and at the same time it does not let the temperature get too high and exceed the setting.

For a full description see: Section II. Advanced functions

#### 3. MANUAL (ONE-OFF) TEMPERATURE SETTING. TIME LIMIT OF THE MANUAL SET-TING

Any required temperature may be preset manually at any time. The temperature will be effective until the end of the current range or for a preset time up to 24 h.

The thermostat provides two methods of manual temperature setting:

#### a. First method: selecting an exact temperature for one of the three preset duration values.

It enables selecting the exact temperature value required at the moment.

Press OK, select the required temperature with the knob and confirm. The temperature will

be stored, the thermostat will return to the operating window and additional  ${igtide {\mathbb O}}$  icon will be displayed.

Manual setting is effective until the end of the current range or (in case there is no range) until the time of starting the next range.

Additionally, one of three duration options may be selected for this temperature. Then the next stored range will not delete it. Factory settings: 30 min, 2 h and 8 h. After confirming the temperature, press OK once, twice or three times. (DURATION will appear and one of the times will be displayed.)

All three duration values may be preset in any way in SERVICE (3) menu / MANUAL SET-TING (item 302).

#### b. Second method: selecting one of the three temperatures and an exact duration

Enables a quick selection of one of the three temperatures preset in SERVICE (3) menu / MANUAL SETTING (item 302). Factory settings: 18°C, 20°C and 22°C.

Press OK, then press OK once, twice or three times. Leave the selected temperature (without confirming). After 5 s the setting will be stored and the thermostat will return to the operating window. D icon will be displayed.

This temperature setting will be effective until the end of the current range or the time of starting the next range.

The duration of the setting may be set up, but only within 5 s until the temperature is stored. In order to set up a duration value, immediately after selecting one of the three temperatures turn the knob (without pressing OK) and set the duration hours. Confirm. Set the duration minutes. Confirm. 0 icon will be displayed.

#### 4. PROGRAMS (RANGES) - PROGRAMING OF TEMPERATURES AND THEIR DURA-TION

It is possible to program up to 9 ranges with various temperatures per day. It is possible to set up various ranges for each day of the week.

In order to program temperatures and their time ranges, enter PROGRAMS menu (item 2) and then:

a. DAY – item 201 – selection of a weekday or a group of days to be programmed (edited).

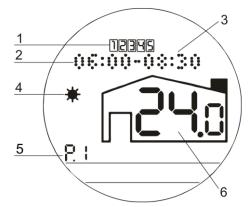
When DAY is displayed, press OK. The weekday digit will start flashing. Select any day or a group of days of the week using the knob. It is possible to program the following groups of days:

- from Monday through Friday digits: 1, 2, 3, 4, 5 are flashing on the display;
- Saturday and Sunday digits 6, 7 are flashing
- the whole week digits of all days of the week: 1, 2, 3, 4, 5, 6, 7 are flashing.

Select the proper day or group of days and confirm. After selecting the day, the device will automatically proceed to the next item – EDIT (item 202).

**b. EDIT – item 202** – preview, establishment, change or deletion of the stored ranges for a previously selected day or group of days

After entering edit menu, the first program is displayed (P1 icon is flashing). Starting and ending hours of this range, selected temperature and icon are visible.



- 1. Day or group of days
- 2. Range starting time (hour and minutes)
- 3. Range ending time (hour and minutes)
- 4. Graphic icon of the range
- 5. Subsequent number of the range
- 6. Temperature set for this time range

Flashing of individual elements indicates that they may be changed.

In order to select a different range or add a new one, enter **edit** menu (item 202). P1 will start flashing. Turn the knob clockwise. ADD RANGE will be displayed. In order to store changes, turn the knob until STORE appears and confirm.

When P1 (or any other program number) is flashing, the parameters of the program may be changed. To change them press OK, which will allow for changing subsequently:

- temperature (when it starts flashing, it may be set with the knob)
- range starting hour and minutes,
- range ending hour and minutes,
- icon (if no icon is visible, turn the knob counterclockwise)

After confirming the icon, P with a proper number is displayed again. The thermostat will automatically arrange the ranges in the proper sequence, therefore their numbering may change.

When P1 is flashing, the knob may be turned to check other ranges of the same day. Exit editing by holding OK longer. Return the operating window by holding OK again. Exiting in this way does not enable storing the introduced changes. **In order to store the changes, exit editing with STORE option.** 

#### Duration of ranges P0

Manually established range may not be shorter than 5 minutes and may not exceed 24 hours. However, it may start on one day and end on the next one. This enables establishing a range starting in the evening and ending in the morning.

In such case an additional number will be visible: P0. It is only informative. This range does not limit a new day and the hour of starting the first range may be set freely.

#### **Deleting ranges**

Time ranges must last for at least 5 minutes.

Setting a range lasting for a time shorter than 5 minutes leads to deleting it.

Please remember: there will be a pause in heating in the place of the deleted range.

Adding a new range with starting and ending hours completely overlapping another range also deletes the previous one.

#### Automatic shifting of range limits

If a starting or ending hour of a new range overlaps a different, previously established range, then the preprogrammed one will be automatically shortened.

c. COPY – (item 203) – copying all settings from one day to another or several other days

In order to copy any day to another or several other days, select COPY (item 203). Use the knob to select a day from which the settings will be copied. Confirm the selection. PASTE TO DAY is displayed. Use the knob to select a day or days to which the settings will be pasted. Confirm. After selecting all days to have the same ranges, turn the knob clockwise until STORE appears and confirm.

#### 5. OPERATION MODES - VACATION, AIRING, PARTY, HOLD, ECO

The thermostat enables manual activation of different operation modes. Settings available in MODES (item 1) menu adjust the operation to the current user needs and do not alter the programmed ranges.

a. VACATION III – (item 101) – setting any temperature for a longer period (several hours, weeks or months), e.g. due to absence. It may start on the day of setting or in future, e.g. in a month or even a year time and may last for any required period.

In order to set a vacation temperature, enter MODES (item 1) and take the following steps subsequently:

- Select VACATION (item 101) use the knob to set YES and confirm;
- Set year of starting vacation period (START: YEAR) and confirm;
- Set month of starting vacation period (START: MONTH) and confirm;
- Set hour (without minutes) and confirm;
- Set year of ending vacation period (STOP: YEAR) and confirm;
- Set month of ending vacation period (STOP: MONTH) and confirm;
- Set hour of ending vacation period;
- Set temperature to be maintained during vacation period and confirm.

The operating window view reappears at the thermostat and **I** icon is visible.

Switching the vacation mode off:

- if it is active press OK
- if it is set for future activation enter VACATION mode and select NO

**b. AIRING**  $\square$  (item 102) – switching the heating device off for the time of airing.

Activating the airing mode:

- manual switch the AIRING mode (item 102) on. It results in limiting the set temperature to the frost protection (item 308) temperature for the time ranging from 5 to 60 minutes (set in SERVICE / MODES / AIRING menu).
- automatic enter SERVICE / MODES / AIRING (item 303), select AUTO mode. Detection of a rapid drop of ambient temperature switches the heating device off for the preset time.

If frost protection temperature is not switched on (item 308 - NO), then airing mode limits the heating completely for the preset time.

Switching the airing mode off: hold OK for 2 s.

c. PARTY 方之- (item 103) – locking automatic change of ranges until switching this mode is switched off. The thermostat will maintain the temperature of a range, during which the mode was turned on.

Switching the PARTY mode off: hold OK for 2 s.

**d.** HOLD – (item 104) activation of a preset temperature, which will not be changed until this mode is switched off manually

In order to set the held temperature value, enter SERVICE / MODES (item 303) menu and use the knob to select HOLD. Then select any temperature and confirm.

In order to activate the preset temperature, select MODES / HOLD (item 304). All stored and implemented ranges will be suspended.

Switching the HOLD mode off: hold OK for 2 s.

e. ECO – (item 105) – reducing all temperatures preset in programs (ranges) by 1°C, 2°C or 3°C

In order to select a value by which all program temperatures will be reduced, enter SER-VICE / MODES menu (item 303) and use the knob to select ECO and then select REDUCE -1, -2 or -3 and confirm.

Switching the ECO mode off: hold OK for 2 s.

### **II. SERVICE FUNCTIONS**

SERVICE menu (item 3) enables previewing and altering advanced functions of the thermostat.

Settings introduced by a technician at the time of the thermostat start-up are enough for the proper control of room temperatures without the need to correct any of the options. Therefore, the less experienced user does not need to enter service menu in order to take the full advantage of the thermostat capabilities. If more serious modifications are necessary, it is recommended to consult a technician or our technical service.

It is recommended to be very careful when modifying the service or installation settings, especially those unlisted above and to do it only if necessary.

Caution! Any intervention may cause malfunction of the system and in extreme cases may result in damaging some elements of the system.

#### **OPERATING TIME** (item 301) – operating time counter of a heating (airconditioning) device

Checking the total time of relay operation

In order to reset the counter, after displaying the time press OK shortly. After pressing OK again, the counter is zeroed.

In order to exit this item without resetting the counter, hold OK for 2 s.

# MANUAL SETTING (item 302) – setting times and temperatures to be selected with the button (see: I. User functions, point 3.)

TEMPERATURE – three temperatures of manual setting – factory setting: 18°C, 20°C and 22°C.

DURATION – three duration values of manual setting – factory setting: 30 min, 2 h and 8 h.

LIMIT – a temperature range not to be exceeded when setting the temperature manually; default range: 5-35°C.

This setting in combination with a coded interlock (SERVICE / PIN / YES / MENU ONLY) prevents excessive temperature changes.

#### **MODES** (item 303) – operation mode settings

AIRING – (see: Section I. User functions, point 5b.)

- AUTO automatic activation of the airing mode in case a rapid drop of temperature is detected – this mode is turned on only when a heating device is switched on.
- MANUAL airing mode will be turned on only manually by a user (item 102).
- DURATION duration of airing from 5 to 60 min irrespective of the method of switching it on.

HOLD - (see: Section I. User functions, point 5d.)

ECO - (see: Section I. User functions, point 5e.)

# YEAR TIME (item 304) – setting the current date and time (see: Section I. User functions, point 2a.)

# ALGORITHM – (item 305) – setting the thermostat operating algorithm (see: Section I. User functions, point 2e.)

HYSTERESIS –the hysteresis settings: from 0.1 to  $5^{\circ}$ C for heating, cooling or floor sensor. PWM – algorithm, which shortens the heating time proportionally to the temperature increase. The closer the temperature to the preset one the shorter the cycles, and longer the time intervals between switch-ons.

- PWM CYCLES allowable number of cycles during one hour is from 2 to 20. An hour divided by the number of cycles gives duration of one full cycle.
- MIN. PWM CYCLE minimum duration of one cycle: from 1 to 10 minutes. In case of using devices that require a minimum start-up time or an operation lasting not less than a specific period, take it into account and adjust this parameter properly.
- PWM LIMIT from 0.1 to 10°C when the room temperature drops below the preset one by a whole limit value, then the heating device is switched on for a complete cycle; when the temperature increases, then the cycle is shortened proportionally and the time intervals between the switch-ons are shortened.

# LEARNING (item 306) – automatic storing of selected temperatures and their time ranges (see: Section I. User functions, point 2c.)

The thermostat stores the duration of a preset temperature and automatically establishes a time range in which this temperature is effective. This range will be effective for all days of the Mon-Fri period or Sat-Sun period depending on the period in which the setting was established and repeated.

When learning is active (item 306 - YES), the thermostat records the temperature and time when it was modified.

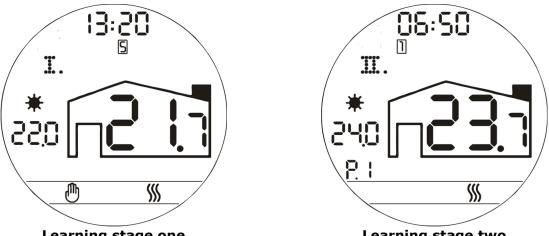
If similar temperatures (differing by no more than 0.4°C) will be set by a user at similar times (time difference not exceeding 60 minutes) in subsequent days of the Mon-Fri or Sat-Sun period, then such manual setting will be stored in the PROGRAMS menu (item 2). It will be implemented automatically. Time ranges are rounded by the learning mode to full ten minutes.

Settings for the individual days of the week are also stored and if they are repeated, e.g. on two subsequent Mondays or two subsequent Saturdays, then such setting will also be stored in the programs. It will be implemented always on these particular weekdays.

### After switching the learning mode off and on again, all stored ranges and programs are deleted.

- > Maximum number of ranges per day: 9.
- > Minimum duration: 60 minutes, maximum: 24 h.

New ranges are established during first four weeks only. In that period the symbol of the first stage [I] will be visible in the text box. After that period, learning proceeds to the second stage [II], in which new ranges may not be added. One may only shift the limits of already stored ranges and change their temperatures. Since then [II] icon is visible in the text box.



Learning stage one

Learning stage two

The stored ranges may be modified any time by:

- changing temperature only at the beginning of a particular range,
- setting the same temperature but setting it earlier or later in order to change duration of a given period
- changing the temperature and starting time of a range with the new temperature.

Repeating the settings at the same time the next day of the range updates the programs with new times and/or temperatures.

The algorithm may allow not all of the changes. In such case the change should be introduced manually in PROGRAMS menu.

When establishing a new range and when shifting its time limit, the RANGE TIME LIMIT CHANGED information appears in the text box. When changing the temperature, the RANGE TEMPERATURE CHANGED information appears. If both the time and the limit are changed, then both pieces of information are displayed.

Learning may be turned off (item 306 – NO) at any time without losing the stored ranges. *Please remember that reactivating learning deletes all stored ranges.* 

Irrespective of the learning mode, the ranges may be deleted, freely changed or added manually in the PROGRAMS menu (item 2) at any time. Any manual temperature change may be set at any time (see: I. User functions, point 3). Setting it once does not affect the ranges established during learning.

# HEATING IN ADVANCE . (item 307) – (see: Section I. User functions, point 3d) – heating a room in advance

The time of turning the heating in advance on is calculated with a sophisticated algorithm, taking into account previous room heat-up times and currently measured temperature.

The thermostat needs several operating days to properly calculate times for various temperatures, thus for the first days the calculated times may not be enough to achieve precisely the preset temperatures at established times. Usually, the correct values are reached within two, three days.

For a proper operation of the advance-heating algorithm, at least two temperatures varying by minimum of 0.5°C must be set in the thermostat.

The time of advance is calculated and updated in the thermostat memory even if heating in advance is not switched on in the service menu (item 307). If the thermostat was already operated in a place and then moved to another room (building), then the advance times may vary from the required ones and will reach a stable value within several days. In particular cases it is recommended to delete the stored advance times. In order to do so, switch off the advance function and then switch it on again.

After switching this function on, it is possible to select the mode of advance:

- COMPLETE switching the heating on with the exact calculated period of heating in advance.
- LIMITED the calculated time of heating in advance may be shorter than the one set with this item.

Time of advance may be limited within the range from 20 to 240 minutes. This ensures that the heating will not start too early. However, in such case, heating the room up to the preset level may be delayed. In special cases when the range in question is short, the preset temperature may not be achieved at all. However, it will be higher than without advance.

#### FROST PROTECTION - (item 308) - frost protection

It maintains minimum temperature preventing freezing of the system. It is set within the range from 1 to  $10^{\circ}$ C. By default:  $5^{\circ}$ C.

In case there are gaps between ranges when the protection is active, the frost protection temperature will be implemented during these gaps.

Switching the thermostat off switches off this protection as well.

# SENSORS CORRECTION (item 309) – modification of temperature readings and display by a preset value. It is recommended to leave all the values unchanged, thus set to 0.

#### PIN (item 310) – restriction of access to all or selected thermostat functions.

Factory preset code is 0000 and it can be changed to any other.

In order to set the lock, enter menu: SERVICE / PIN (item 310) / YES. Select the element to be locked and enter any four-digit code. From this moment, it will be used to unlock and to reset the thermostat (in the RESTORE FACTORY SETTINGS menu – item 311).

- ALL interlocks access to all thermostat functions. Only the display backlight is operational and when holding OK longer, the request to enter the code appears. Enter the code using the knob while confirming each digit.
- MENU ONLY temperatures and their durations may be set manually, but in order to enter the main menu (MODES, PROGRAMS, SERVICE), it is required to enter the code.
- SERVICE ONLY interlocks only the possibility to enter the SERVICE item.

#### **RESTORE FACTORY SETTINGS (item 311) – deleting all settings and programs**

Factory-code of reset is 0000 if the code of PIN item is changed, then the new one is also valid for reset. Resetting does not alter the settings entered in the technician's menu neither does it reset the date and time. It deletes all settings in the SERVICE menu along with the programmed ranges.

#### AIR CONDITIONING (item 312) – switch from a heating to air-conditioning device

When selecting SERVICE / AIR CONDITIONING (item 312) / YES, the device connected to the thermostat will be switched on when the temperature increases above the preset one. Switching on the air-conditioning operation enables the preset ranges to be replaced with others – the ones stored for cooling. After returning to heating functions, the previous ranges will be restored. This function enables the thermostat to operate with air conditioning and heating without loss of settings.

After selecting SERVICE / AIR CONDITIONING / AUTO the thermostat automatically switches over between the heating and cooling mode. Set the limit temperature TURN OFF IF, above which the thermostat operates with cooling settings. If the temperature drops below this temperature by the value of hysteresis, which is adjustable as well, the thermostat switches over to heating control.

### **III. TECHNICIAN'S MENU – quick start**

The technician's menu facilitates installing the thermostat with proper settings without the need to modify them manually.

In order to enter these settings, hold OK. When SETUP appears, hold OK and turn the knob. INSTALL will appear.

The technician's menu consists of the following elements:

RESET (item 1) – using it deletes all settings and restores the thermostat factory settings, including the installation settings and default interlock code. It is recommended to consult a technician or EUROSTER technical service prior to resetting the device. Reset is implemented with a separate code: 7153, irrespective of the code set in the service menu.

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

- INSTALL (item 2) enables selection of the following:
  - language (1)
  - type of system: heating air conditioning (heats (1) cools down (2)),
  - type of sensors: internal (1), external (2) or two sensors (3) (Control based on the temperature measured by an internal (built-in) sensor with the floor temperature limit of 5-45°C and its hysteresis.) In case of choosing the external sensor, the controlled temperatures range from -9.9 to 80°C.
  - heat sources (water electricity),
  - $\circ$  heating elements (radiators, floor or forced air) and

• devices switched on by the thermostat (pump, valve, boiler or others).

Setting these options enables selection of preliminary settings, mainly algorithms,

to the particular configuration without the need to modify them manually in the service menu.

- TEST (item 3) – enables checking of the following:

- software version,
- o correct switching on and off for the connected device,
- o display,
- sensor readings.

In order to check the correct connection of the heating device to the relay output, press OK – the relay will be switched on. Then press OK again – the relay is switched off.

### **IV. INSTALLATION AND CONNECTION**

#### SAFETY RULES

#### DANGER!

- Please read this manual carefully prior to installing the thermostat.
- Voltages hazardous to life may be present on the thermostat output cables, therefore only qualified technicians may install the thermostat.
- Do not install any thermostats showing signs of mechanical damage.

#### **PROPER PLACE OF INSTALLATION**

The thermostat is designed for indoor wall mounting at a height of approximately 1.5 m above the floor.

Avoid places with strong sunlight, near heating or air-conditioning devices, 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 the device.



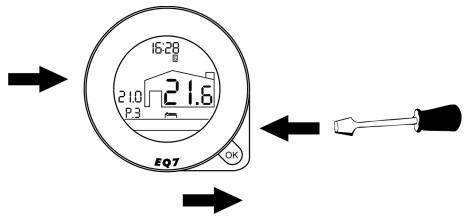
#### **OPENING THE THERMOSTAT**

The thermostat enclosure consists of two main parts:

- a base with a connector for cables,
- a front panel with a battery cover.

The thermostat elements are joined together with two latches.

Pull out the battery cover in order to open the thermostat and press one of the hooks on the edge of the thermostat with a flat screwdriver, then press the other one. Carefully separate the front panel and the base.



pull out the battery cover

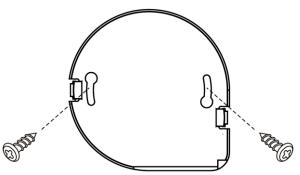
#### INSTALLATION OF THE THERMOSTAT AND BATTERIES

Lead all necessary cables prior to mounting the thermostat. Connect the thermostat with a stranded wire with a diameter adequate to the switched load (minimum  $0.75 \text{ mm}^2$ , maximum  $1.5 \text{ mm}^2$ ).

Mounting holes of the thermostat enable installation in standard Ø60 flush-mount back boxes or directly on walls using screw anchors. There is a mounting template for surface mounting provided in a kit.

In order to insert the cables through the base, break off a blind plate located between the connection ports. Screw the base to the wall possibly most horizontally. Then install the front panel of the thermostat and insert the batteries while observing the correct polarity.

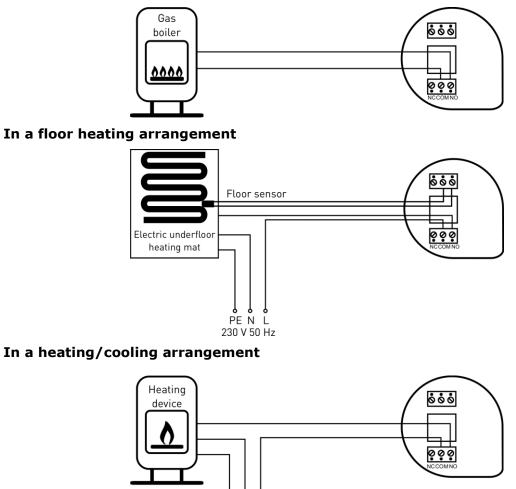
ATTENTION! Use only AA batteries to power the thermostat. Do not use rechargeable batteries because their voltage is lower and their effective time is shorter (due to self-discharge).



#### SAMPLE CONNECTION DIAGRAMS

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

#### In arrangement with a gas boiler



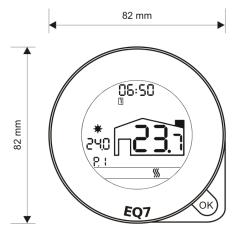
PE N L 230 V 50 Hz

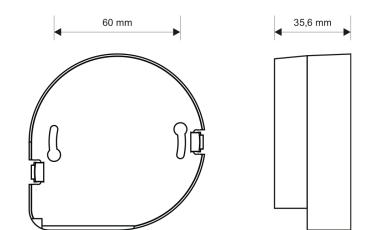
#### FLOOR SENSOR CONNECTION

Screw the floor sensor to connector A (terminals no. 4 and 5) according to the above sketch. It is not necessary to keep the cable polarization.

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

#### DIMENSIONS





TECHNICAL DATA

Controlled device: Supply voltage: Maximum load: Thermostat output: Temperature measurement range: Temperature control range:

Floor temperature limitation: Temperature control accuracy: Temperature reading accuracy: Visual signalization: Operating temperature: Storage temperature: Ingress protection rating: Color: Mounting method: Thermostat weight without batteries: Standards, approvals, certificates: Warranty period: Dimensions (W/H/D) mm:

5 A 230 V 50 Hz relay, voltage-free type, SPDT (change-over) from -10 to +100°C internal sensor: from +5 to +35°C cabled sensor: from -9.9 to +80°C +5 to +45°C- from 0.1°C 0.1°C backlit LCD with a text box from +5 to +45 °C from 0 to +65°C IP20, class IIwhite wall-mounted, screw anchors-114 q conformity to EMC, LVD and RoHS 2 years 82/82/35.6

air-conditioning / heating systems

3 V, 2 pieces of AA batteries

#### **KIT CONTENTS**

- Euroster Q7 temperature thermostat
- AA batteries
- screw anchors
- Installation and Operation Manual with Warranty Certificate
- mounting template

#### **STANDARDS AND CERTIFICATES**

Euroster Q7 thermostat conforms to the following EU Directives: EMC, LVD and RoHS. The EC Declaration of Conformity is available at: <u>http://www.euroster.com.pl</u> 17

#### **ELECTRONIC WASTE MANAGEMENT INFORMATION**



We made every effort to ensure that this thermostat lifetime is as long as possible.

However, the device is subject to natural wear. If the device would not meet your requirements any more, you are kindly requested to have it brought in to an electronic waste management facility. Cardboard boxes must be disposed at a paper recycling facility. Used batteries are hazardous waste and must be disposed of in an electronic waste management facility or any retail establishment selling batteries.

### WARRANTY CERTIFICATE EUROSTER Q7 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 ensuing if the product would not meet any of the sale contract terms.

.....

sale date

serial number/date of manufacture

signature/stamp

Business entity that issued this warranty certificate is: P.H.P.U. AS Agnieszka Szymańska-Kaczyńska, Chumiętki 4, 63-840 Krobia, Poland