



Thermostat **OneKeyElectro 25**

with touch screen
and control via Tuya cloud service
(Smart Life)

User manual

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Introduction

Thank you for choosing our thermostat.

This innovative device features a completely new design, an intuitive touchscreen interface, and the ability to control it remotely from anywhere in the world via the Internet.

The thermostat must be paired with a frame from the OneKeyElectro Garda or Florence range of electrical installation products. Please note that frames are sold separately.

This thermostat is an ideal complement to the OneKeyElectro product range, providing both style and functionality to meet your needs.

Product Description

The OneKeyElectro 25 thermostat (Fig. 1) is designed for controlling electric heating systems (heating mats, film heaters or cable sections) as well as water underfloor heating, using a normally closed type thermal head with 230 V control.

The maintains a comfortable surface temperature and ensures rational energy consumption.

The principle of operation of the thermostat is as follows: the user sets the desired temperature (floor or air), then the thermostat determines the current temperature via a sensor and, if it is lower than the set temperature, the thermostat switches the heating on and keeps it on until the temperature is one degree higher than the set temperature. The heating is then switched off and kept off until the temperature falls below the set temperature by 1 degree. The temperature is thus maintained.

The thermostat has two temperature sensors: a floor temperature sensor – remote, supplied with the thermostat; and an air temperature sensor – built into the housing of the device.

IMPORTANT!



The thermostat controls heating using only one sensor (floor or air).
To switch between sensors, see page 30.

The display shows the set maintenance temperature (in the main display). The current temperature can also be displayed.



Fig. 1. External view of the OneKeyElectro 25 thermoregulator.

Installation instructions

WARNING!



Please read these instructions carefully before starting the installation.

IMPORTANT!



For wiring diagram and installation instructions, please refer to the “Installation and connection” section of these instructions.

We recommend to have a qualified specialist install the thermostat and heating system.

The electrical connection and wiring must be carried out by a professional electrician.

The installation instructions and wiring diagram are not a substitute for professional training of the installer.

The manufacturer's warranty does not cover malfunctions caused by mechanical damage, improper installation or use for purposes and under conditions not specified in the installation and operating instructions.

List of tools and materials required for installation:

1. corrugated plastic tube with a diameter of at least 16 mm (the length depends on where the temperature controller is installed);
2. standard plastic mounting box (socket outlet);
3. slotted and Phillips screwdriver;
4. mains voltage phase indicator;
5. punch;
6. pliers.

IMPORTANT!



De-energize the wiring before connecting or disconnecting the thermostat for inspection or replacement. Electrical connections and wiring of the appliance must be carried out by a qualified electrician.

Installation of floor temperature sensor

IMPORTANT!



The floor temperature sensor is installed during the installation of the heating mat, heating section or heating foil.

The temperature sensor is placed in a corrugated plastic tube.

The end of the tube is sealed with an airtight plug to prevent the ingress of tile fixing mortar or grout when installing underfloor heating.

The corrugated tube with the sensor inside is placed at the level of the heating cable, between its coils, at an equal distance from them (Fig. 2).

The other end of the tube with the installation wire of the temperature sensor inside is placed in a groove in the floor and led to the place of installation of the temperature controller or junction box.

Excess tubing and installation wire are cut to size.

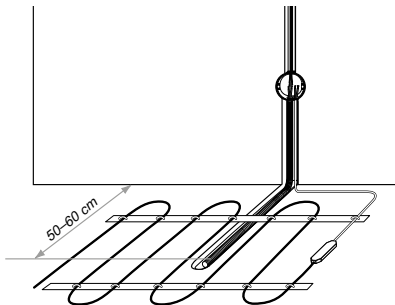


Fig. 2

Mounting the thermostat

IMPORTANT!



The installation of the thermostat is carried out after the floor heating has been installed.

The power supply to the regulator must be connected via a separate automatic circuit breaker and RCD.

Preparation of electrical connections

Install the mounting box or junction box (if using).

Connect the power supply wires, the mat or section installation wires and the floor sensor installation wire to it.

Apply voltage to the power supply line. Use an indicator to identify the phase and neutral conductors and mark them.

Wiring diagram

All wires are connected to the screw terminals of device.

The temperature sensor is connected to terminals **1** and **2** (polarity is irrelevant). The supply voltage (AC 230 V) is applied to terminals **5** and **6**, with the **phase** (determined by the) on terminal **6** and the **zero** on terminal **5**.

The leads of the heating section or mat are connected terminals **3** and **4**; the shielding braid lead (yellow-green) is connected to the protective earth (PE) line via external terminal contact (Fig. 3).

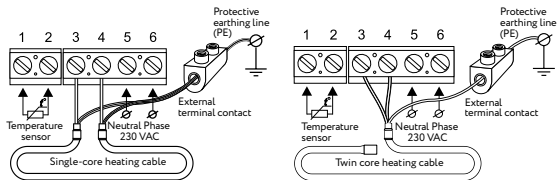


Fig. 3

Installing the thermostat

Disassembly after purchase

IMPORTANT!

- When disassembling the thermostat mechanism, hold the front part (screen + frame) with the palm of your hand to prevent the elements from jumping out of their mounting slots, falling and causing mechanical damage to the screen and frame.

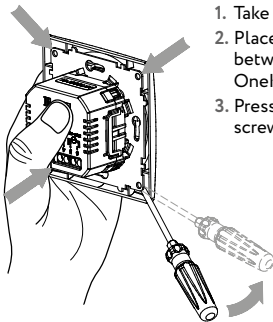


Fig. 4

1. Take a flat blade screwdriver.
2. Place a screwdriver in the corner between the steel frame and the OneKeyElectro frame (Fig. 4).
3. Press the steel frame with the end of a screwdriver until the latch comes out.

4. Place the screwdriver in the next corner and disengage the latch.
5. Repeat for the remaining corners until the control unit is completely disconnected from the power supply (the OneKeyElectro frame is simply clamped between the units).
6. Divide the temperature controller into blocks (Fig. 5).

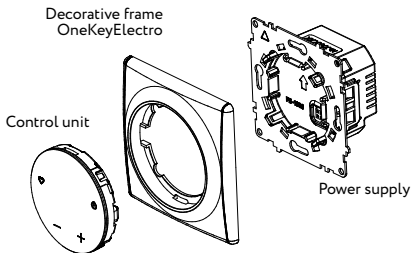


Fig. 5

Mounting the thermostat

1. Install the wires into the power supply terminal blocks according to the wiring diagram (page 11).
2. Install the power supply unit in the wall mounting box (Fig. 6).
3. Use self-tapping screws to fasten the steel frame of the power supply unit in the mounting box (var. 1 or var. 2).

IMPORTANT!



When fixing the steel frame according to var. 1, make sure it is not deformed!

The fastening according to var. 2 ensures that the steel frame is not deformed.

4. Install the OneKeyElectro frame on the power supply.
5. Install the control unit, orienting it according to the mark on the housing (arrow pointing upwards). Press the control box cover until the latches lock into place.

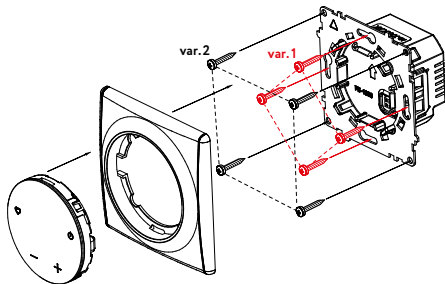


Fig. 6

For more information on installing Garda frames, see the Garda frame instructions

IMPORTANT!

- ! The OneKeyElectro designer wiring frames have vertical, decorative ridges (see Fig. 7).
- ! The thermostat mechanism only locks in this position. Install the frame carefully!

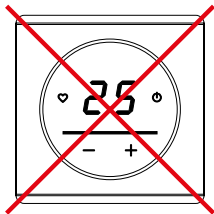
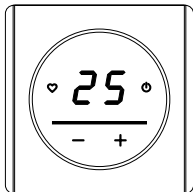


Fig. 7

Dismantling the thermostat

1. Take a flat blade screwdriver.
2. Insert into the corner between the OneKeyElectro frame and the wall (Fig. 8).
3. Pull the latch out of engagement with the screwdriver "toward you".
4. Repeat steps 2 and 3 for the other corners of the frame, until the control unit latches are completely out of engagement with the power supply.

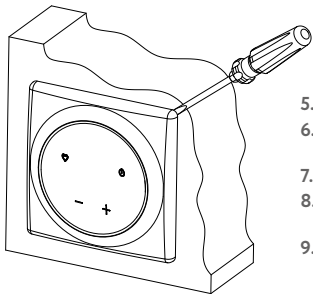


Fig. 8

5. Remove the control unit.
6. Remove the OneKeyElectro frame.
7. Remove screws.
8. Remove the power supply from the mounting box.
9. Disconnect wires from terminal blocks.

Controls and indications

The OneKeyElectro 25 temperature controllers use a display with LED indication to display information (Fig. 9).

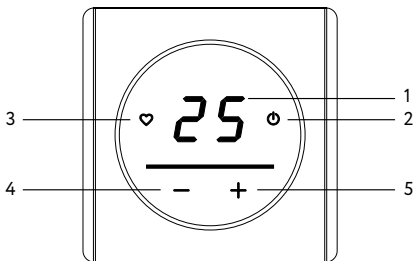


Fig. 9

The control buttons are used to operate the device:

1. Set maintenance temperature
2. Switch the temperature controller on/off. Remove/set the lock.
3. Quickly turn on your favorite temperature
4. Reduce maintenance temperature
5. Increase maintenance temperature.

Backlighting

The display backlight turns off automatically 40 seconds after the last press.

If the “” button is pressed briefly for less than 3 seconds, the current floor temperature will light up on the display.

To release the lock, hold down the start button “” for more than 3 seconds. When the lock is released, the illuminated symbols “+”, “-”, “” and “” as well as the current maintenance temperature are displayed.

The color of the button and bar backlighting can be changed according to the scenarios below.

To change the illumination scenario, press “” and “” simultaneously in the main display mode. The display shows the scenario number.

Mode	Without Wi-Fi connection			
	Screen off		Screen on	
	No heating	Heating	No heating	Heating
1	Lights up “  ” in blue	Lights up “  ” in red	All icons are blue, the stripe is blue	All icons are blue, the stripe is red
2	The stripe is blue	The stripe is red	All icons are blue, the stripe is blue	All icons are blue, the stripe is red
3	Lights up “  ” in blue, lights up the stripe in blue	Lights up “  ” in red, lights up the stripe in red	All icons are blue, the stripe is blue	All icons are blue, the stripe is red
4	Lights up “  ” in blue	Lights up “  ” in red	All icons are blue, the stripe is blue	All icons are red, the stripe is red
5	Lights up “  ” in blue	Lights up “  ” in red	All icons are white, the stripe is blue	All icons are white, the stripe is red

With Wi-Fi connection			
Screen off		Screen on	
No heating	Heating	No heating	Heating
Lights up "⏻" in turquoise	Lights up "⏻" in yellow	All icons except "⏻" blue, "⏻" turquoise, stripe blue	All icons except "⏻" blue, "⏻" turquoise, stripe red
The stripe is turquoise	The stripe is yellow	All icons except "⏻" blue, "⏻" turquoise, stripe blue	All icons except "⏻" blue, "⏻" turquoise, stripe red
Lights up "⏻" in turquoise, lights up the stripe in blue	Lights up "⏻" in yellow, lights up the stripe in red	All icons except "⏻" blue, "⏻" turquoise, stripe blue	All icons except "⏻" blue, "⏻" turquoise, stripe red
Lights up "⏻" in turquoise	Lights up "⏻" in yellow	All icons except "⏻" blue, "⏻" turquoise, stripe blue	All icons except "⏻" red, "⏻" yellow, stripe red
Lights up "⏻" in turquoise	Lights up "⏻" in yellow	All icons except "⏻" white, "⏻" turquoise, stripe blue	All icons except "⏻" white, "⏻" turquoise, stripe red

Turning on the thermostat

The thermostat is switched on after all electrical connections have been made and checked.

IMPORTANT!



Do not turn on the newly installed heating system before the recommended curing time of the tile setting mortar (2–3 days) or cement/sand screed (28 days).



Premature activation of the heating may cause damage to the floor decoration and failure of the heating mats or sections. If in doubt, consult your heating dealer.

On the front panel of the thermostat there is a display, 4 control buttons and a backlit strip.

To switch the temperature controller on/off, press and hold the button “⏻” for at least 3 seconds. After switching on thermoregulator, the main display shows the basic indication of the device (Fig. 9, page 18).

Favorite temperature

The thermostat has the ability to memorize one temperature value and set it as a one-touch maintenance temperature in the future.

To memorize a specific temperature, after setting it, press and hold "♥" for 3 seconds, until a characteristic beep sounds.

Now you can set your favorite temperature in one by pressing "♥".

Return to factory settings

To reset the thermostat to factory settings, press and hold the “♥” and “-” buttons for at least 3 seconds. After the reset, the device will reboot and return to the factory settings:

- constant maintenance mode;
- maintenance temperature +20 °C;
- favorite temperature is +28 °C.

Special features

To be able to control via Wi-Fi, you need to download the Smart Life program to your smartphone by following the link:



After downloading the program, registering and connecting the thermostat, the following functions can be used:

- heating control via the internet from anywhere in the world;
- program mode operation (setting two intervals at which the heating is switched on per day);
- collection of statistics on the electricity consumption of the OneKeyElectro 25 thermostat.

When this QR code is recognized, the apps will launch a step-by-step instruction to connect the device:



Connecting to the Wi-Fi network

There are two ways to connect to a Wi-Fi network:

EZ Config is the recommended connection method;

Access Point is an alternative connection method if Smart Config connection is not possible (connection in access point generated by the thermostat).

EZ Config mode

1. Connect your smartphone to a 2.4 GHz Wi-Fi network.
2. Launch the Smart Life application.
3. Complete the registration process if necessary.
4. Switch on the thermo regulator by pressing and holding the button “” for 3 seconds.
5. Press “Add Device” and follow the instructions in the app.
6. Activate the EZ Config mode on the temperature controller by pressing and holding the “” and “+” buttons on the temperature for 3 seconds. The symbols appear on the display screen “SC”, confirming the activation of this mode and the button “” will start flashing red at intervals of 0.5 seconds (Fig. 10).
7. Further connection will be performed automatically by the application.

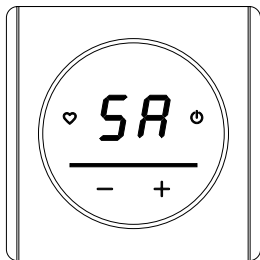


Fig. 10

AP (Access Point) mode

1. Connect your smartphone to a 2.4 GHz Wi-Fi network.
2. Launch the Smart Life application.
3. Complete the registration process if necessary.
4. Switch on the thermo regulator by pressing and holding the button "⏻" for 3 seconds.
5. Activate AP mode in the thermostat by pressing and holding the "⏻" and "-" buttons on the thermostat simultaneously for 3 sec-

onds. The “AP” symbols will appear on the display screen to confirm that this mode has been activated and the “” button will flash red at 1 second intervals (Fig. 11).

6. Click “Add Device” and follow the instructions in the application.

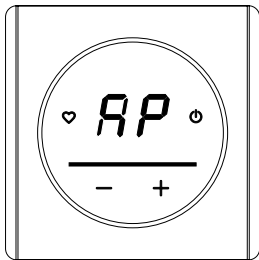


Fig. 11

Troubleshooting

Sensor error

In case of the temperature sensor fails (open circuit – see Fig. 11 or shorted installation wires – see Fig. 12), the display will show a fault and the heating will be switched off. In any of these cases, contact the manufacturer's warranty service for repair or replacement of the appliance or sensor.

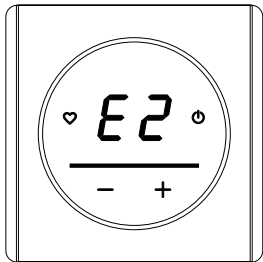


Fig. 11

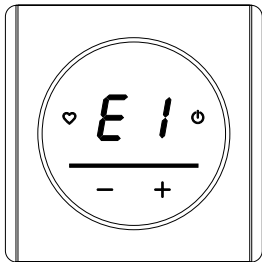


Fig. 12

Heating control mode by air temperature sensor

This mode is useful for controlling other heating systems (convectors, water underfloor heating, etc.).

The OneKeyElectro 25 thermostat has a built-in air sensor. It is not possible to control the heating using both sensors (floor and air) at the same time.

To select the sensor by which the heating is currently controlled, use the switch located on the rear of the control module (Fig. 13).

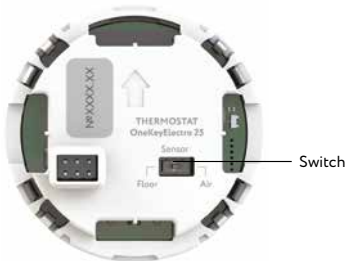


Fig. 13

Additional features

OneKeyElectro 25 temperature controllers are also used for controlling underfloor heating systems by means of a thermal head controlling water circuit.

Connection of thermostatic control head for water heating systems (normally closed, 230 V)

The connection diagram of the thermostatic head to the thermostat is given in Fig. 14.

The control algorithm of a water heating system is similar to that of an electric heating system.

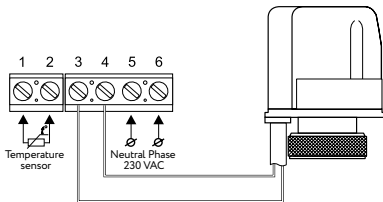


Fig. 14

Technical specifications

Thermostat OneKeyElectro 25

Power supply voltage	230 VAC
Maximum load current	16 A (3.68 kW)
Power consumption	max. 5 W
Weight	150 gr
Dimensions	80 × 80 × 42 mm
Degree of protection	IP21
Protection class	II
Floor temperature sensor (TST02)	NTC 6.8 kOhm
Sensor installation lead length	3.0 m ± 10%
Permissible ambient temperature	from +5 °C to +40 °C
Maximum permissible relative humidity	80 %
Temperature control limits	from +5 °C to +45 °C

Security measures

- The thermostat must be connected by a qualified electrician.
- All installation and connection work should be carried out with the power supply voltage disconnected.
- Use only plastic junction box for mounting the thermostat.

If a malfunction is detected, contact your dealer or retailer.

IMPORTANT!



Failure to comply with any of the above requirements may result in failure of the temperature controller. The warranty will not be honored.

IMPORTANT!



The power and heat output of the electric heater and the heat loss of the room in which the heater is installed determine whether the maximum temperature set by the user can be achieved.

Warranty obligations

The manufacturer guarantees the conformity of the product with the design description, and the compliance with the assembly and operating instructions.

Warranty period: 2 years from the date of purchase.

If a defect occurs within the warranty period, which is due to inappropriate manufacture, the customer has the right to subsequent performance. Damage due to improper handling, manipulation by third party, incorrect installation (inobservance of handling instructions) or consecutive damages, are excluded from the warranty.

Please keep your proof of purchase. Warranty services will only be provided upon presentation of this document.

Conformity

The following declarations confirm, that the thermostat OneKeyElectro 25 reference is compliant with:

https://onekeyelectro.com/media/DoC_OKE25.pdf

European Directive 2014/30/EU (EMC)

European Directive 2012/19/EU (WEEE directive)

Radio equipment directive (RED) 2014/53/EU

Low Voltage Directive (LVD) 2014/35/EU

EU RoHS 2 Directive 2011/65/EU

Disposal

Disposal regulations acc. to European Directive 2012/19/EU:

Defective electrical units should never be disposed of in household waste! In case of malfunction or non-function, they need to be disposed of separately. Please require public discharge point from your urban administration or district authority.

Only this will guarantee proper recycling and environment protection.
Reason for special marking of the equipment.



Dispose of the equipment in sorted waste. Cardboard and paper in paper recycling, plastic foils in plastic recycling.



WARNING

Releasing of toxic liquids or gases into atmosphere is forbidden!



No disposal of electrical devices in consumer waste. Use specific collection points. Please require public discharge point from your urban administration or district authority. In case of disposal in dumps or burrows, danger develops by leaking of hazardous substances into groundwater, returning into food chain, and endangering your health.

Weee-Reg.-Nr/Weee Reg. No: DE14335428

Important Safety and Installation Guidelines

- Power must be turned off before installation, maintenance or repair.
- Improper installation or use may cause electric shock or damage.
- Installation must be performed by a qualified professional.
- Do not expose to moisture.
- Stop using if product is damaged or shows signs of electrical issues
- Read the user manual carefully before use.

All information is correct and reliable to the best of our knowledge. Changes, errors, and misprints do not justify any claims for damages from the company.

Claims are regulated by GTC of the seller.

We reserve the right to make technical changes without prior notice!

Importer: warm-on GmbH
75179 Rastatter Str. 30
Pforzheim Germany

onekeyelectro.com