



Thermostat EcoSmart 25

TECHNICAL CERTIFICATE



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ATTENTION!

Please read this manual carefully before starting the installation

INTRODUCTION

The EcoSmart 25 thermostat is designed to control electrical heating systems of premises. The thermostat maintains a comfortable temperature of the heated surface and provides efficient energy consumption. The thermostat provides control using two temperature sensors: floor sensor and air sensor, both simultaneously and separately (included in the scope of delivery).

The thermostat can control waterheated floors when using a normally closed thermal head with 230 V control voltage (see Figure 5 on page 15).

Remote control of heating is available from a smartphone with the SST Cloud App installed, using a home Wi-Fi router.

The device is installed in the wall next to the heating cable installation wires (see the "Floor temperature sensor installation" section on page 12).

It is allowed to install the thermostat instead of the used thermostats of other series and manufacturers.

SPECIAL FEATURES

The EcoSmart 25 thermostat allows you to control the floor heating directly via the device touch screen or SST Cloud App installed on your smartphone.

To connect the thermostat to your smartphone, use a Wi-Fi network.

- The supported Wi-Fi network standards are: IEEE 802.11. b/g/n 2.4 GHz.
- The smartphone OS requirements: ANDROID 5.1.0, iOS 10.0.

Download free SST Cloud Aapp for your smartphone or tablet from the corresponding store. You can also get a link to this program on the website teploluxe.ru or via QR code provided below:



To learn more about the features of the SST Cloud App, visit sstcloud.ru.

WI-FI CONNECTION GUIDELINES

- Wi-Fi standards supported by the thermostat:
IEEE 802.11. b/g/n 2.4 GHz.
- Minimum Wi-Fi signal level at the place of the thermostat installation: -70 dBm.
- Position the Wi-Fi router's antennas according to the manufacturer's recommendations in order to maximize the Wi-Fi signal level at the location where the thermostat is installed.
- The number of thermostats connected to your home network at the same time depends on the type of router you are using.
- If the Wi-Fi signal level of your home network exceeds the radio interference level by no more than 20 dBm at the location where the thermostat is installed, we recommend changing the Wi-Fi channel to a less busy one, eliminating the source of interference, changing the router position, using remote directional Wi-Fi antennas, and equipment for extending the radio coverage area (access points and repeaters).
- When installing thermostats in large area premises, those of complicated configuration, or if there are problems with configuring Wi-Fi connection, we recommend to contact a specialist for configuring Wi-Fi equipment.

IMPORTANT!

You can check the Wi-Fi signal level and busy Wi-Fi channels using the Wi-Fi Analyzer App for smartphone placing your smartphone at the thermostat installation location. If the signal level is less than required, change the router's position or use equipment to increase the coverage area of the Wi-Fi network (access point, repeater, etc.).

Wi-Fi signal propagation is affected by reinforced concrete floors, metal objects (cabinets, boxes, mirrors, etc.), as well as sources of radio interference (for example, microwave ovens). The source of radio interference can also be Wi-Fi access points installed in neighboring rooms.

Since the thermostat is flush mounted in the wall, the Wi-Fi signal level received by the device can be lower than that shown by the smartphone.

To set up and operate the EcoSmart 25 thermostat, download its operating manual on your smartphone.



CONTROLS AND DISPLAY

To display information and control operating modes, the thermostat uses an LCD touch display with functional control buttons applied to it.

To set up and control the device, the control buttons are used

1. “<” – to decrease the temperature following value;
2. “O” – to switch the device ON/OFF, to unlock it;
3. “>” – to increase the temperature value.



Figure 1

The main indication window of the thermostat

There are two main display modes of the device:

- current time indication (Figure 2a);
- current floor and air temperature indication (Figure 2b).

Switching between the display modes occurs automatically every 3 seconds.

The set temperature is displayed in large figures.

The other displayed items:

1. Set temperature
2. Program mode
3. Constant mode
4. Date/time
5. AP mode
6. STA mode
7. SC mode
8. Indication of heating switch on
9. Screen lock is on
10. Used sensor floor \triangle air ∇

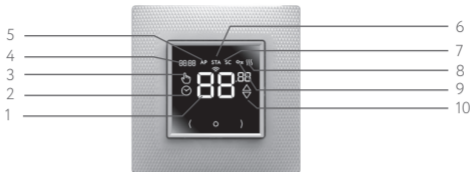


Figure 2. The main indication window of the device

Control buttons locking/unlocking

To unlock the buttons, hold the ON/OFF button for more than 3 seconds. When the buttons become unlocked, the device's backlight turns on. For the first three seconds, the touch buttons are calibrated, and then you can modify the device settings.

The buttons lock automatically 40 seconds after the last press.

You can force the lock by holding the power button for longer than 1, but less than 3 seconds.

To turn OFF the device, press and hold the power button for more than 3 seconds. When you click it, a countdown will appear. When it is finished, the device will turn off.

Factory settings reset

The EcoSmart 25 thermostat can be reset to the factory settings if necessary. In this case, information about connected Wi-Fi networks will be erased from the device memory heating, schedules and temperature settings will be returned to the factory settings:

28 °C – the comfort temperature, 12 °C – the energy saving and freeze prevention temperature. Also the constant temperature maintenance mode will be set, with the control by the floor temperature sensor (28 °C) and the limitation by the air temperature sensor (35 °C); and the self-learning feature will be enabled.

To reset the factory settings, remove the lock by pressing and holding the “<” and “>” buttons for more than 3 seconds. After that, the display of flashing zeros will appear on the thermostat screen and the device will return to factory settings. Turn it ON by pressing the central button.

THE ECOSMART 25 THERMOSTAT INSTALLATION MANUAL

Scope of delivery

1. EcoSmart 25 Thermostat
2. Floor temperature sensor with the installation wire (2 m±10%)
3. Technical certificate
4. Packing box

Installation and connection

Tools and materials required:

1. Corrugated plastic tube min 16 mm in diameter (the length depends on the thermostat mounting location)
2. Standard plastic mounting box
3. External terminal connector for the earthing line connection
4. Slot screwdriver
5. Mains phase indicator

IMPORTANT!

Refer to the "Installation and connection" section of this Manual for the connection diagram and installation guidelines.

We recommend to use the services of qualified specialists when installing the thermostat and heating system. The electrical connection and connection to the mains must be performed by a professional electrician.

The installation instructions and wiring diagram do not replace the professional skill of the device installer.

The manufacturer's guarantee does not cover any product defects caused by mechanical damage, improper installation, or operation for purposes or under conditions not provided by the installation and operation instructions.

IMPORTANT!

Disconnect your local wiring from the mains before connecting the thermostat or disconnecting it to check or replace it. Electrical connections of the device and its connection to the mains must be performed by a qualified electrician.

Floor temperature sensor installation

The floor temperature sensor should be placed in a corrugated plastic tube near its end. This end of the tube must be sealed to prevent penetration of tile fixing solution or cement mortar during the installation of warm floors.

The corrugated tube containing temperature sensor must be located at the same level as the heating cable inbetween two neighbouring passes of this cable (Figure 3). At that you can select the parameters of the operating temperature sensors from the list provided in the SST Cloud App.

Place the tube in preliminarily prepared groove (chase) in the floor and lead its other end to the place chosen for the thermostat or junction box location. Cut the excessive tube and the sensor installation wire to a proper length.

IMPORTANT!

The floor temperature sensor is installed when you perform your heating element (mat, cable section or film) installation.

The thermostat is installed at the end of the warm floor system installation.

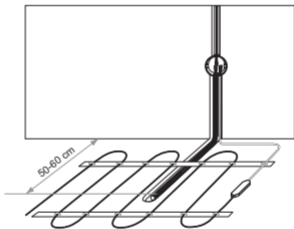


Figure 3

Thermostat installation

Preparation of electrical connections

Install the mounting box or the intermediate junction box (if you plan to use it).

Lead power supply cable, installation wires of the warm floor heating elements, temperature sensor installation wire to the box.

Energize the supply cable and find the phase wire and the neutral wire using the mains phase indicator; mark these wires. De-energize the supply cable.

Connect all required wires to the thermostat using its terminals with screw fastening.

The temperature sensor is connected to terminals 1 and 2 (polarity does not matter). The supply voltage (230 VAC) is applied to terminal 5 and 6, at that the phase wire (detected by the indicator) – to terminal 6, and the neutral wire – to terminal 5.

The heating element installation wires are to be connected to terminals 3 and 4; the screening braid output (yellow-green wire) – to the protective earthing (PE) line via the external terminal contact (not included in the scope of delivery) (Figure 4).

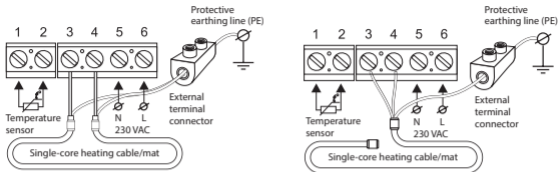


Figure 4

Connection diagram of the thermostatic head to the thermostat to control water heating systems.

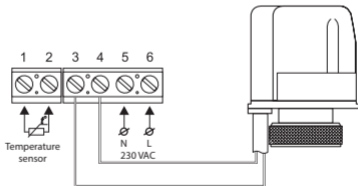
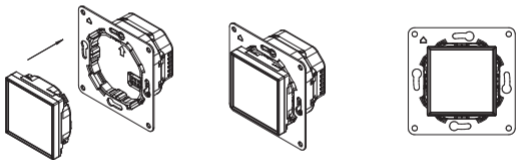


Figure 5

Mounting the thermostat

Disassemble the device.

1. Remove the front cover. For that, carefully press in turn, by thin slot screwdriver, the latches located on the lower side of the front cover, pulling it slightly out (Figure 6a).
2. Take off the cover (Figure 6b).
3. Place the rear part of the device into the mounting box and fasten by means of at least two screws.

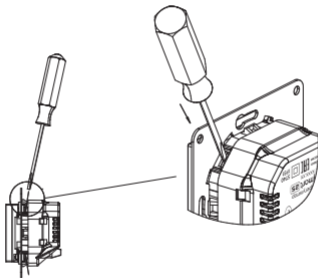


To assemble the device, it is required to align the arrows on the power supply part with those on the control part of the unit and install the control part pushing it up to fixation.

Figure 6a

Assembling the device

Install the front cover carefully on the upper latches of the rear part of the device and press the cover at an angle up to the click of all latches. Make sure that the front cover tightly adjoins the rear part of the thermostat installed in the mounting box.



To disassemble the device, carefully press in turn, by thin slot screwdriver, the latches located at the angles and pull the control part out.

Figure 6b

TECHNICAL DATA

Supply voltage	230 VAC
Maximum load current	16 A (3.5 kW)
Power consumption	450 mW
Weight	120 gr
Dimensions	80×80×44 mm
Ingress protection rating	IP31
Protection class	II
Floor temperature sensor, included in the scope of delivery (TST02)	NTC 6.8 kOhm
Sensor installation wire length	2 m ± 10%
Permissible ambient air temperature	from +5 °C to +40 °C
Permissible relative air humidity	80 %
Temperature control range	from +5 °C to +45 °C
Service life	Min 5 years
Wi-fi network standards supported	IEEE 802.11. b/g/n 2.4 GHz
Retention time of heating control parameters	Not limited

"Open window detection" feature	Yes
Clock time settings retention time	4 hours (automatically synchronized when accessing cloud)
Floor temperature sensor nominal resistance supported (can be selected in the SST Cloud App)	Atlantic NEVADA 6.8 kOhm Aube 10 kOhm Warmup 12 kOhm Devi 15 kOhm Eberle 33 kOhm Ensto 47 kOhm

TRANSPORTATION AND STORAGE

It is allowed to transport the thermostat by all transport means in accordance with the rules of transportation operating for the particular means of transport used.

SAFETY MEASURES

The thermostat conforms to the requirements of the Technical Regulations

EN 60730-1: 2016

EN 55014-1: 2017

EN 61000-3-2: 2014

EN 61000-3-3: 2013

EN 55014-2: 2015.

The power connection of the thermostat must be performed by a qualified electrician. All the installation and connection works with the units must be performed with the power supply disconnected.

GUARANTEE OBLIGATIONS

The manufacturer guarantees that the quality of the thermostat meets the requirements of Technical Specifications provided that transportation rules as well as installation and operation guidelines are observed.

Guarantee period – 3 years from the date of sale.

During the guarantee period, the buyer has the right for repair or replacement of the unit when detecting failures occurred through the manufacturer's fault and if the recommendations for installation and operation are followed.

Claims

If faults occur during the guarantee period of the device, the buyer must immediately contact the manufacturer's service center or its authorized regional representative.

The Service Center: +7 495 728-80-80, garant@sst.ru
141008, Russia, Moscow region, Mytishi,
Proektiruemyj proezd 5274, Bldg. 7.

Addresses and phone numbers of service centers in other regions are specified on the website www.teploluxe.ru

The thermostat EcoSmart 25,

date of manufacture _____,

has passed factory tests and is certified as ready for operation

QCD stamp here _____

Date of sale _____

Seller's stamp here

The manufacturer: **Zavod SST TP LLC**
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