



Evesta O Wi-Fi 7-seg thermostat Installation and user manual

This guide describes technical functions of the Evesta O Wi-Fi 7-seg thermostat.

TECHNICAL DATA

Display: LED 3x7-segments + two indicator LEDs

Voltage: 230V 50/60 Hz

Maximum load: 16A (resistive)

Setpoint temperature range: +5 °C...+40 °C

Device usage temperature: +0 °C...+40 °C

External control: Pilot wire 230VAC

IP-class: IP21

Color: White RAL9003

Sensors: Integrated room sensor and NTC 10 kΩ

floor sensor included in sales package

Wi-Fi: 2.4GHz 802.11bgn

Standards: CE, EN 60730-1, EN 60730-2-9, EN 300 328 V2.2.2

Phone operating system requirements: Android 8.0 / iOS 12 or newer.

INSTALLATION

Installation must be done by a qualified electrician in accordance with the building and wiring regulations. Before installation, disconnect any power to thermostat mains. Note that external control (pilot wire) may have its own mains connection.

Start installation by removing the front part using small screwdriver (Figure 1)

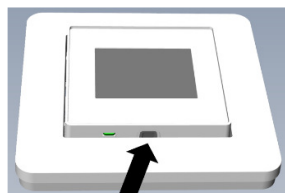


Figure 1.

Wires must be stripped 9-10mm. Wires can be released by pressing the connector's release switch. If you are using multi-strand wire press terminal block release switch to help wire installation. Pull the wire to make sure it is properly connected. Floor sensor must be placed into protective tube in concrete. Make sure there is no water in the tube.

L: Live

LOAD L: Heating cable connection (Live)

LOAD N: Heating cable connection (Neutral)

N: Neutral

PILOT: External control for Home, Away mode

SENSOR: Floor-sensor NTC (6.8, 10, 12, 15, 22, 33, 47, 100kΩ) type.

Use external screw connector to connect heating cable protective earth.

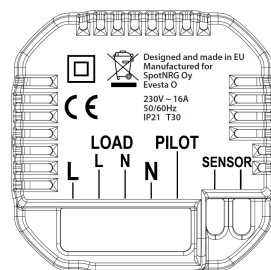


Figure 2.

Next, position the thermostat and fasten it onto the wall's mounting box using 2-4 screws. Open the frame retaining spring, position the frame and close the spring. Then attach the front part, make sure the connector between front and bottom part is correctly placed. Press the front part until it snaps in place. The front part can be later removed by pressing the ejector latch.

THERMOSTAT FIRST USAGE AND MODES

When the thermostat is powered up first time, all parameters are using default settings, other possible settings are in brackets.

Operation Mode	-H- Home (-A- Away, SCH Weekly Schedule)
Regulation mode	F- floor, if floor sensor is present, otherwise A- room (AF). Floor sensor type 10kΩ (6.8, 12, 15, 22, 33, 47, 100kΩ)
Calibration	0 °C (-2°C...2°C floor sensor, -10°C...10°C room sensor)
Display standby brightness	2 (0, 1...3)
Temperature limits	FLo 5°C (floor min temp) FHI 40°C (floor max temp) ALo 5°C (room min temp) AHI 40°C (room max temp)

Note: With wooden floors a floor sensor must be used. Floor temperature must be limited to 27°C (**FHI**).

MAIN MENU

Main menu offers the following settings, move with left and right buttons and select with center button.

ESC: Back to standby screen

-H-: Activate Home mode

-A-: Activate Away mode

SCH: Activate Weekly Schedule. Note! selection is only available if the week program is done with phone application.

SET: Open settings

Settings menu:

ESC: Exit menu and return to main menu.

nEt: Connect to internet (**COn** Connect to cloud, **OFF** Wi-Fi off, **On** Wi-Fi on).

br1: Standby display brightness 0-3, 0 standby display off

br2: Active display brightness 1-9

LOC: Child lock. Activate by selecting **On**, cancel with **ESC**. In standby mode child lock is deactivated by pressing center button three times. Display shows LOC when activated from standby with one press.

OFF: Thermostat will be switched off. Cancel with **ESC**, activate by selecting **OFF** again. Turn the thermostat back on with three center button presses.

AdU: Advanced settings

Advanced settings

Advanced settings are only meant for installation and not for normal users. Enter advanced settings by selecting **AdU** in settings.

ESC: Exit menu and return to settings.

OPE: Operation Mode (**F**, **A**, **AF**)

F: Regulation with floor sensor. Mode is available if a floor sensor is connected.

A: Regulation with room sensor, mode only available if floor sensor is not connected. With connected floor sensor AF mode can be used.

AF: Regulation with room sensor + floor temperature limit. Mode is available if a floor sensor is connected.

In **A** ja **AF** modes thermostat room sensor adapts to the environment during few days, do not change sensor calibration during the adaptation period. Note: With phone application heating setup more operation mode combinations are available. If **A**, **F** or **AF** mode is selected from thermostat manually it overwrites previous heating setup selections done in app.

SEn: Sensor selection

Select correct NTC value for floor sensor (6.8 - 100kΩ)

CAL: Calibration

Possibility to offset reading from thermostat floor sensor (in floor regulation mode **F**) or room sensor (in room regulation mode **A**, **AF**).

ALo + AHI: Room temperature setpoint lower and higher limit.

FLo + FHI: Floor temperature lower and higher limit.

rES: Reset to factory settings. Confirm with **On**, cancel with **ESC**.

Error messages:

Er5/Er6: Sensor error. If **F** or **AF** mode is active without working floor sensor connected it causes Er5 error. If there is a failure in the internal room sensor Er6 is displayed.

USAGE

1 User interface

Thermostat is controlled with three capacitive touch buttons which are:

- Left (down)
- Center (confirm / select)
- Right (up)

The indicator LED on the right side of the thermostat indicates relay state. When the indicator is red the relay is conducting and the heating element is active. When the thermostat is in cooling mode the indicator is blue when relay conducts.

2 Stand-by / Main screen

If thermostat is left idle for a while it goes to standby screen showing the measured temperature.

Thermostat will show the main menu when the center button is pressed. In the main menu the operation mode (Home, Away, Schedule) can be selected. The setpoint for selected operation mode can be changed with left or right buttons. The temperature value will blink while setpoint adjustment is done. If left or right button is pressed in schedule mode, thermostat will show the currently active schedule setpoint. The week schedule is programmed with the phone application.

The settings menu can be accessed by selecting SET from the main menu. Selecting ESC will always return from the menu. ESC is always the bottom item in the menu. Left and right buttons can be used to navigate the menus. Center button is used to enter menu or confirm selection. Parameters in the menu can be changed with left and right buttons.

Thermostat local menus offer subset of functionality. All functions are available via phone application.

3 What operation mode should be used?

Thermostat has three modes locally: Home (-H-), Away (-A-) and weekly schedule (SCH). The phone application offers in addition antifrost and power regulation modes. With phone application cooling can also be enabled, in that state thermostat relay

conducts if measured temperature is bigger than setpoint.

Home mode default setpoint setting is 21°C, it can be changed with left or right buttons or from phone application. Away mode default is 19°C.

Weekly schedule helps to save energy by changing setpoint according to programmed schedule for example using lower setpoint during nights. Programming is done with phone application.

External control (pilot wire) can be used to select between Home and Away modes. If a 230VAC L signal is applied to the pilot input, the thermostat will change to AWAY mode.

4 Regulation modes

In mode **A** thermostat uses internal room sensor to regulate heating. Parameters **AHI** and **ALO** determine the setpoint range (**FHI** and **FLo** is not used in this mode). Mode A is possible only with concrete floor, since with wooden floors, floor temperature must be monitored.

In mode **F** thermostat uses floor sensor to regulate heating (floor sensor must be installed). The floor minimum and maximum temperatures can be set with **FHI** and **FLo** parameters (**AHI** and **ALO** is not used in this mode)

In mode **AF** thermostat uses room sensor to regulate heating and makes sure floor temperature stays inside **FHI** and **FLo** limits (floor sensor must be installed). This operation is useful with wooden floors, when floor sensor must not exceed 27°C. **FLo** can be used to keep floor warm even when room air temperature is higher than setpoint. Parameters **AHI** and **ALO** limit the setpoint range like in **A** mode.

5 Phone application

Android or Apple phone application enables controlling the thermostat over the internet. Application offers more possibilities for the thermostat, like weekly schedule.

The application can be downloaded from Apple App Store or Google Play Store.



Adding thermostat to the application:

Select Add Thermostat from Zone card and follow the instructions in the application.

In the thermostat enter settings **SEt** and select **nEt** menu and under that **CO**n function. Thermostat will show first three-digit PIN-code, which is entered into the phone application. After that press the right button to show second PIN-code, which is also entered into the phone application. After setting the second PIN-code, follow the instructions on the application. The app will connect the thermostat to your Wi-Fi network.

Phone application supports grouping thermostats into zones. Inside zone thermostats share settings (operation mode, setpoints etc.) unless thermostat is set temporarily to use custom settings.

Thermostat Wi-Fi indicator LED color codes.

White: Thermostat connected to Wi-Fi and Cloud.
Yellow: Thermostat connected to Wi-Fi, but not connected to Cloud.
Red: Thermostat not connected to Wi-Fi or Cloud.
Off: Wi-Fi off

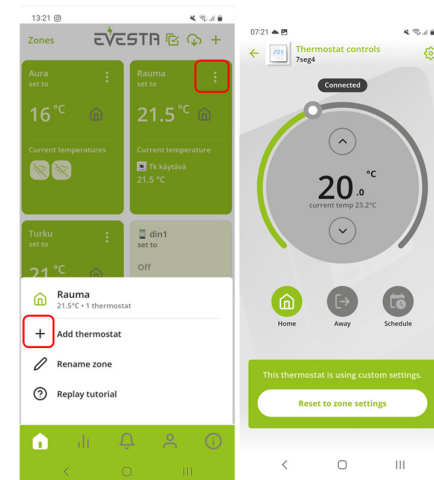


Figure 3. Phone application

6 Electricity cost optimization

Activate electricity cost optimization by using the phone app. The setting is thermostat-specific and can be found under the gear menu in the upper right corner of the thermostat view. Check the location of the thermostat in the application. The location is used to select the right electricity price area and weather forecast. Choose how many degrees the temperature setpoint is automatically raised during cheap electricity. Also choose how much setpoint will be dropped during expensive electricity. When the average temperature of the next day exceeds the "Forecast save limit" setting, the setpoint is not raised during cheap electricity i.e., no heating to the reserve is done. Also select the number of raise and drop hours. You can monitor the operation of the price optimization and achieved savings under the "Reports" tab of the phone application.

