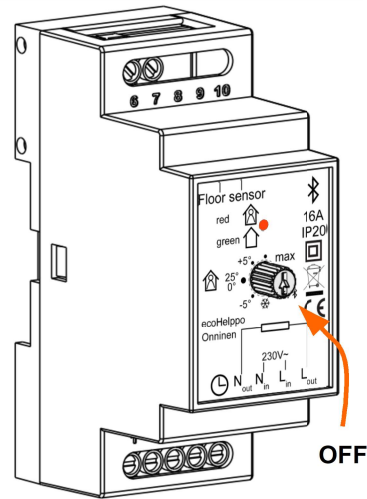




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Installation and operating instructions

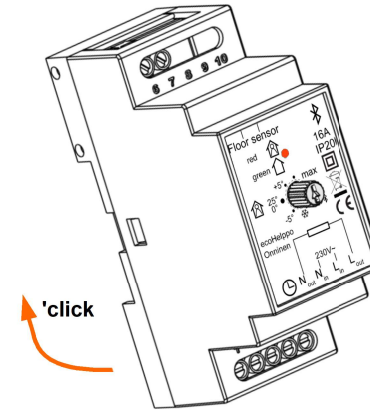
BLE DIN THERMOSTAT – SETUP

TECHNICAL SPECIFICATIONS

Bluetooth: Version 4.2
Power supply: 230V - 50Hz
Maximum load: 16A (resistive)
Temperature range: +5°C/+35°C
External Temperature setback: 230V - 50Hz
IP class: IP20
Standard Color: Grey
Sensors: external floor sensor NTC or wireless sensor

INSTALLATION

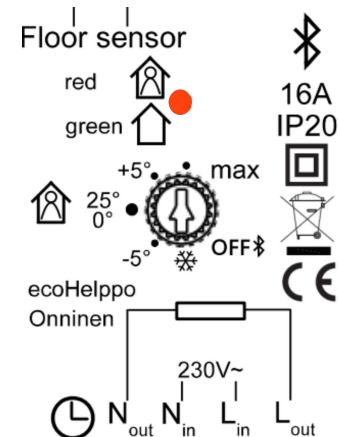
Installation must be done by a qualified electrician in accordance with wiring and building regulations. Before installation, disconnect any power to the thermostat's mains.



Snap BLE DIN thermostat onto a standard DIN rail the up-side first.

Connect the wires to the thermostat's terminals according to the wiring diagram on a cover.

1: External 230V setback (if in use), 2: Heater neutral, 3: Main supply neutral, 4: Main supply line, 5: Heater line, 6-7: NTC floor probe.



STARTUP

After connecting the power to the thermostat for the first time the parameters are initialized to default values.

Mode : Floor
Floor temperature min : 5°C
Floor temperature max : 27°C
Name of thermostat : RANDOM number
User program activated eco temp : 19°C
Externally activated eco temp : 19°C
Floor temperature offset (calibration) : 0°C
Air temperature offset (calibration) : 0°C
Air temperature min : 5°C
Air temperature max : 28°C
Snow melting ON temperature min : -5°C
Snow melting ON temperature max : 15°C
Snow melting OFF temperature: -25°C
Snow melting air humidity min: 30%
Valve protection : OFF
Sensor type : 10k ohm
Led intensity : 100%
Weekly program : OFF

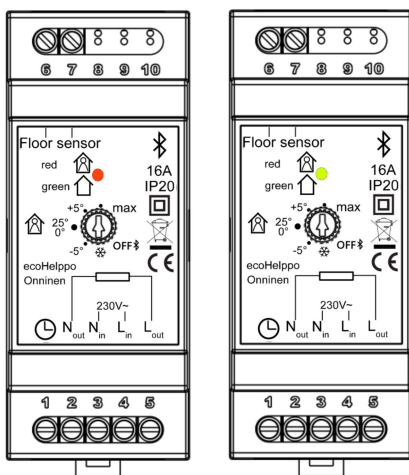
Use ecoControl App to check and modify settings.

BLE DIN THERMOSTAT – USER MANUAL

BASIC USE

The thermostat is controlled with the rotary knob. Use the knob to set the target temperature in comfort mode or switch ON/OFF the thermostat. The center point (a bigger dot) corresponds to 25°C. The snow flake and maximum symbols equal to "min and max temperature" specified in settings. Eco mode can be selected with an external setback switch (230VAC). Target temperature for this eco mode is defined in "Externally activated eco temp" setting and the default value is 19°C.

A bi-color led indicates the operating status of the thermostat. If red and green leds are both OFF the thermostat is in OFF mode. In OFF mode heating is forced OFF despite of temperature.



COMFORT + ON

ECO + ON

- red led on → target temp selected by knob is reached
- red led fluctuating → heating is on
- green led ON → eco temp setting value reached
- green led fluctuating → heating is on
- led is blinking → sensor cable error (open or short circuit)

ADVANCED USE

1 Settings

Thermostat has several settings which can be adjusted by ecoControl App.

Mode

Thermostat can work in **floor or room (air)** temperature mode, or it can melt snow and ice from stairs and driveways in **snow melting** mode.

Floor temperature min and max

Min and max values specify active range of knob.

Air temperature min and max

This setting has two main purposes. In air mode it specifies active knob range. In all other modes it can

be used as air frost/over temperature protection.

Snow melting ON temperature min and max

Min and max setting specify the active knob range. When outdoor temperature is below this setting point the snow melting operation is active.

Snow melting OFF temperature

When it is colder than this temperature the snow melting is switched OFF.

Snow melting air humidity min

When wireless outdoor temperature sensor is used the thermostat also receives air humidity level. Snow melting function will not be activated if the air humidity is below this limit.

Name of thermostat

Name shown in ecoControl App

User program activated eco temp

During all green hours in user program the temperature is adjusted to this value.

Externally activated eco temp

During every external pilot signal active time temperature is modified to this value.

Floor temperature offset (calibration)

If user's temperature measurement has offset to dial setpoint this setting is used to calibrate.

Note, floor sensor inside floor construction is much warmer than real temperatures measured in room.

Air temperature offset (calibration)

If user's temperature measurement has offset to dial setpoint this setting is used to calibrate.

Note, Air temperature mode uses external sensor, either cable or wireless.

Valve protection

Valve protection turns heating ON once per week for 5 minutes even at summer time. This setting is typically used with water carrier floor heating valves. Feature prevents the valve from getting stuck during summer.

Sensor type

Floor sensors from different manufacturers can be used. Supported types are 2k, 10k, 12.5k, 15k, 33k NTCs.

Led intensity

Intensity of the LED.

User program mode

AUTO enables user defined weekly schedule, OFF disables it.

Wireless temperature sensor

Wireless sensor allow freely selectable location for temperature sensing. It provides an accurate temperature and air humidity information for the thermostat. Write the sensor address to Network keys in order to connect sensor to thermostat.

Receive wireless eco-controls

A thermostat with an external eco switch can control several other thermostats if *Receive wireless eco-controls* is enabled. There is no need to wire devices together. Give the same address (freely selectable) to Network key of all the thermostats you want to group together.

Network key and Confirm network key

Write the wireless sensor or group address in both *Network key* fields to enable the desired function. Remember to save the changes. Easiest way to fill in the Network key fields is to use phone camera and QR code if available. Press the camera button in eco-Control App, point the camera to QR code and save the changes.

2 Week schedule

User can create 7d/24h week schedule in ecoControl App. Program thermostat to decrease temperature during selected time slots when room is not used. Green indicates that thermostat is in week schedule eco slot. Week schedule execution needs correct real time in thermostat. **In case of invalid real time the week program is deactivated and user is warned by blinking red and green lights.** Real

time is updated from ecoControl App every time the thermostat is connected to a mobile phone. Real time has backup to power shortages of 2 hours.

3 ecoControl App connection

User may use a mobile device with ecoControl App (Android / iOS) to read log temperatures, to make settings and define a weekly user program. App also can generate email reports. Follow the guides in ecoControl App!. A Thermostat indicates the mobile device connection by fast blinking red led.

4 Error modes

The slowly blinking led indicates error state. It can be a corrupted real time during too long power break. This is automatically solved by taking connection with ecoControl app. Use ecoControl App to read an error code. Possible error codes are

- 1 Floor sensor fault
- 2 Air sensor fault
- 3 Over heat or Internal fault
- 10 Calendar time is not valid

You may try to reset fault by switching OFF and ON from the knob or by using ecoControl App to generate hard reset.

In errors 1, 2, 3 heating is permanently off. In error 10 user program is deactivated.

For more information:



<http://taelek.fi/Documents/>