Controllers

Description of the controllers

Control of 2 valves	Control of 3 valves	Front panel made of glass	Touchscreen	Wireless communication	Wired communication
Update via USB	Uploading photos via USB	Control of the solar system	Flush-mountable	SIGMA version	ZPID version

Description of the system extension possibilities

Internet Module	GSM Module	Room regulator	Room regulator with RS communication	Additional valve module

RS communication

RS – two-way communication based on data transfer code protocol developed by TECH company. This type of communication allows the user to connect additional, subordinate system elements which expand the main controller possibilities

1

TABLE OF CONTENTS

All diagrams included in this catalogue are pictorial – they cannot replace CH installation project. Their aim is to present how the controller set may be expanded.

The heating installation diagrams do not include protective elements which are necessary to ensure correct installation.
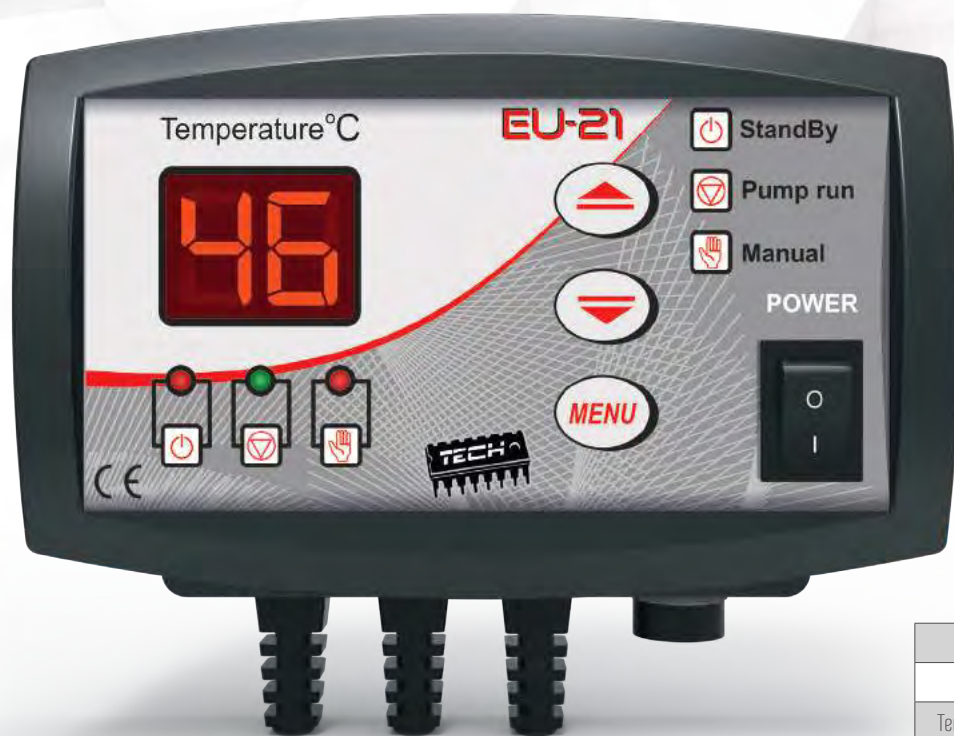
EU-19, 20, 21
Pump controllers

Power	230V 50Hz
Pump output load	1 A
Temperature setting range	25ºC - 85ºC
Temp. measurement accuracy	+/- 1ºC
Dimensions [mm]	137 x 96 x 40

Functions
• CH pump control

Equipment
• CH temperature sensor

EU-19
• anti-stop function
• potentiometer for setting the desired temperature

EU-20
• potentiometer for setting the desired temperature

EU-21
• possibility as thermostat operation
• anti-stop function
• anti-freeze function
• possibility of setting temperature of pump activation and deactivation możliwość (operation in range two temperatures) minimal operation temperature: -9°C
• LED display

T1

HEATING DEVICE
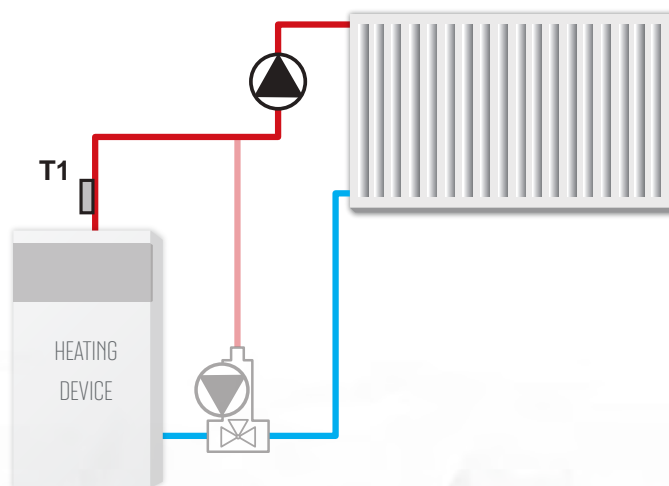
EU-21 CWU
Buffer pump controller

Power	230V 50Hz
Pump output load	1 A
Temperature setting range	25ºC - 85ºC
Voltage-free contact load	1A / 230 V / AC
Temp. measurement accuracy	+/- 1ºC
Dimensions [mm]	110 x 163 x 57

Functions
• DHW pump control

• anti-stop function

• anti-freeze function

• control of the voltage-free output

• possibility of defining pump activation delta

• protection against DHW tank cotoling

Equipment
• LED display

• two temperature sensors

Principle of operation

EU-21 DHW regulator is a multi-purpose controller equipped with two temperature sensors, intended for controlling DHW tank pump. The controller activates the pump when the **temperature difference between the two sensors exceeds set value (T1-T2 ≥ Δ),** provided that **T2 ≥ Minimum threshold of pump activation.**

The pump is deactivated when **T2 ≤ T1 + 2°C** or when **T1 < Minimum threshold of pump activation – 2°C (constant hysteresis value)** or when **T2 reaches the set value.** Key: T1 – CH boiler temperature T2 – DHW tank temperature (buffer).

It prevents unnecessary pump operation as well as unintended cooling down of the DHW tank when the water supply temperature drops. This, in turn, helps to save electricity and prolongs the life of the pump. Consequently, the device is more reliable and economical.

EU-21 DHW regulator is equipped with a system preventing pump stagnation during long standstill. The pump is switched on for 1 minute every 10 days. Additionally, the controller is equipped with anti-freeze function. When the temperature of CH boiler sensor or DHW tank sensor drops below 6°C, the pump is activated permanently. It is switched off when the circuit temperature reaches 7°C.
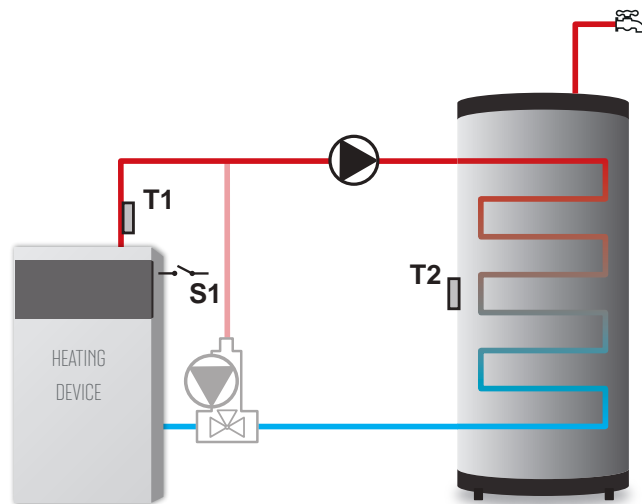
EU-27i
Pump controller

Power	230V 50Hz
Pump output load	1 A
Temperature setting range	30ºC - 70ºC
Temp. measurement accuracy	+/- 1ºC
Dimensions [mm]	125 x 200 x 55

Functions
• CH pump control

• control of additional DHW or floor pump

• anti-stop function

• anti-freeze function

Equipment
• LCD display

• CH temperature sensor T1

• additional pump temperature sensor T2

• knob of the pulse generator

• casing designed for mounting on the wall
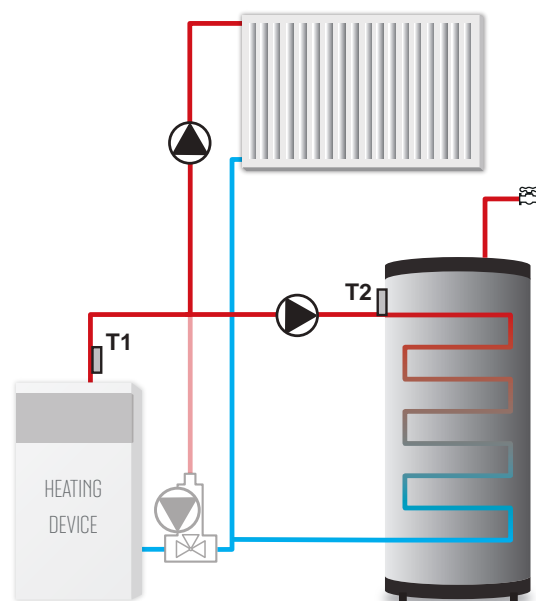
Principle of operation

EU-27i regulator is intended to control the operation of CH circulation pump and of the additional pump (DHW or floor pump). The controller's task is to switch the CH pump on if the temperature exceeds the threshold value of activation and to switch the pump off when the boiler cools down (e.g. as a result of burnout). For the second pump, apart from activation temperature, the user adjusts the set temperature up to which the pump will operate.

TECH

EU-427i
Pump controller

Power	230V 50Hz
Pump output load	1 A
Temperature setting range	30ºC - 70ºC
Temp. measurement accuracy	+/- 1ºC
Dimensions [mm]	125 x 200 x 55

Functions

• time-based or temperature-based control of the three pumps

• anti-stop function

• anti-freeze function

• the possibility of setting any pump priorities

• possibility of connecting a room regulator
  with traditional communication (a two-state regulator – ON/OFF)

Controller equipment

• LCD display

• three temperature sensors

• knob of the pulse generator

• casing designed for mounting on the wall
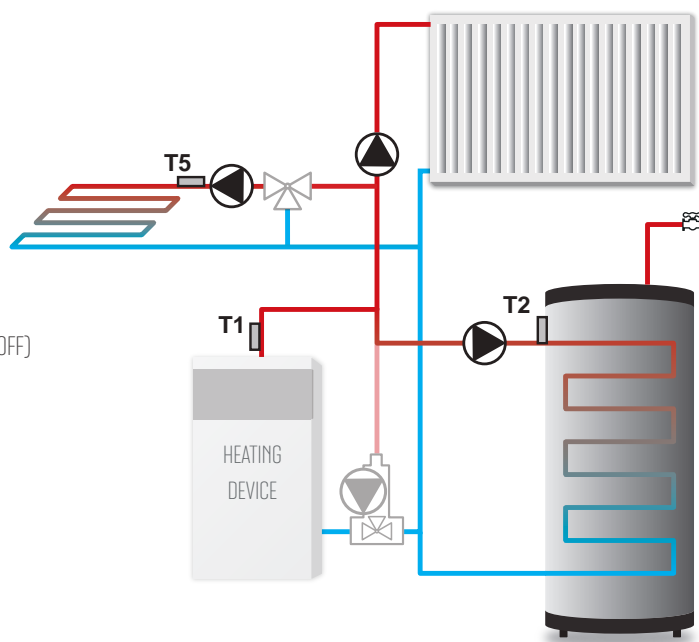
Principle of operation

EU-427i regulator is intended to control the operation of three pumps. The controller's task is to switch the pumps on (temporarily if the temperature exceeds the threshold value of activation) and off when the boiler cools down (e.g. as a result of burnout). If a selected pump is not a CH pump, turning off can be realized by signal from room regulator. Apart from activation temperature, the user adjusts the set temperature up to which the pump will operate. There is a possibility to set any priorities of the pumps' operation.

EU-430
Mixing valve controller

Power	230V 50Hz
Pump output load	0,5 A
Valve output load	0,5 A
Temp. measurement accuracy	+/- 1ºC
Dimensions [mm]	125 x 200 x 55

Functions

• smooth control of the three- and four-way valve

• pump operation control

• return temperature protection

• weather-based control

• possibility of connecting a room regulator
  with traditional communication (a two-state regulator - ON/OFF)

Controller equipment

• LCD display

• valve temperature sensor T6

• return temperature sensor T7

• external sensor T8

• casing designed for mounting on the wall
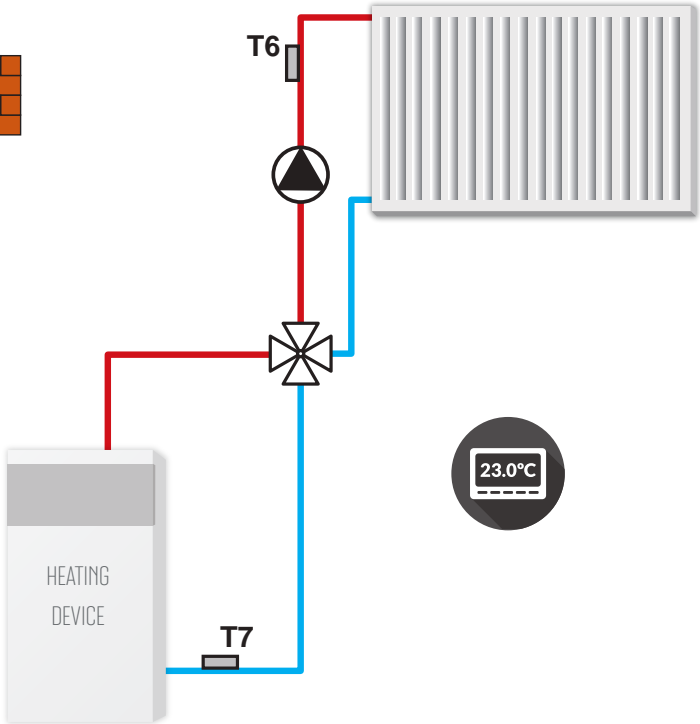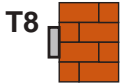
Principle of operation

The EU-430 thermoregulator is intended to operate a three- or four-way mixing valve with an option of connecting an additional valve pump. The controller features a weather-based control function and can be connected to a room temperature regulator. The additional functionality of return temperature protection prevents water from boiling in the short boiler circuit and from becoming too cold when returning to the boiler.

TECH

EU-431n
Mixing valve controller

Power	230V 50Hz
Pump output load	0,5 A
Valve output load	0,5 A
Temp. measurement accuracy	+/- 1ºC
Dimensions [mm]	110 x 163 x 57

Functions
• smooth control of the three- and four-way valve
• pump operation control
• the possibility of controlling two valves by means of additional EU-61v4 or EU-431N modules
• the possibility of connecting EU-505 ETHERNET module
• return temperature protection
• weekly and weather-based control
• the possibility of connecting room regulator with RS or traditional communication

Controller equipment
• LCD display
• boiler temperature sensor
• valve temperature sensor T6
• return temperature sensor T7
• external sensor T8
• casing designed for mounting on the wall

Principle of operation
Thermoregulator type EU-431N is intended for three- or four-way mixing valve with a possibility of connecting additional valve pump. Optionally, the controller may cooperate with two valve modules, which enables the user to control up to three mixing valves. The controller is equipped with weather control function, weekly program and may cooperate with the room regulator. An additional advantage of the device is the protection of return temperature, which fulfils the function of protection against boiling ofthe water in the short boiler circulation or against too low temperature of the water returning to the water boiler. Boiler sensor act as protection against boiling the water in the boiler.

INSTALLATION CONTROLLER

Cooperation with room regulator
with RS communication

Week-based control

Weather-based control

Control of **2 heating sources**

Cooperation with
two-state room regulators

Possibility of maintain the system
via Internet

Control of max.
**2 additional
mixing valve actuators**

Control of max.
**3 bulid-in
mixing valve actuators**

Possibility to control of
max. 8 pumps

Colour Touchscreen

Possibility of control
the circulation pump

Possibility of maintain the system
via smartphone

Optional **0-10V
analog output**

Control of the
solar collector system

EU-407n
Installation controller

Power	230V 50Hz
Pumps output load	0,5 A
Valve output load	0,5 A
Voltage-free contact load	1A / 230 V / AC
Temperature setting range	40⁰C - 80⁰C
Temp. measurement accuracy	+/- 1⁰C
Dimensions [mm]	360 x 220 x 80

Possibility of connecting 2 heating sources

Possibility of control additional device e.g circulation pump, lights, or, grass sprinkler

RS   3   USB

Functions
• smooth control of the three mixing valves
• DHW pump control
• solar system control
• return temperature protection
• weekly and weather-based control
• optional analog 0-10 V DC output (e.g. for control gas boiler)
• two configurable voltage-free outputs
• two configurable voltage outputs
• the possibility of connecting three two-state room regulators
• the possibility of connecting room regulator with RS communication
• the possibility of connecting EU-65 GSM module
• the possibility of connecting EU-505 ETHERNET or WiFi RS module
• the possibility of controlling two valves by means of additional EU-61v4 or EU-431 N modules
• possibility of updating the software via USB

Equipment
• big, color, touch 4,3" LCD display
• DHW temperature sensor
• external sensor T8
• valve temperature sensors
• boiler and return water temperature sensors
• casing made of high quality materials resistant to high and low temperatures

www   GSM   23.0⁰C   RS
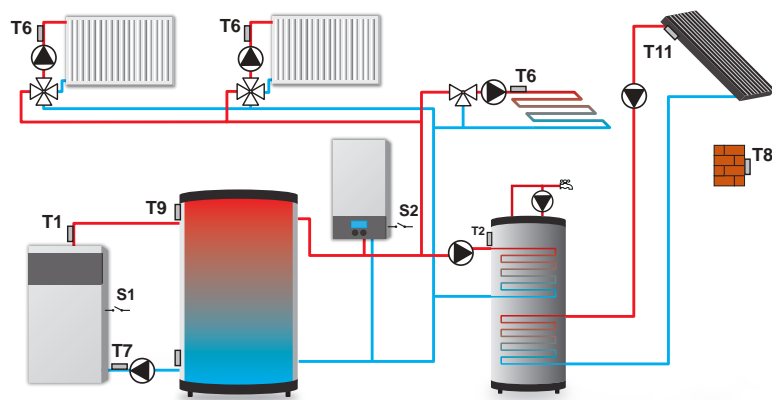
EU-408n
Sterownik do instalacji

Possibility of connecting 2 heating sources

Possibility of control additional device e.g circulation pump, lights, or, grass sprinkler

Power	230V 50Hz
Pumps output load	0,5 A
Valve output load	0,5 A
Voltage-free contact load	1A / 230 V / AC
Temperature setting range	40ºC - 80ºC
Temp. measurement accuracy	+/- 1ºC
Dimensions [mm]	360 x 220 x 80

Functions

• smooth control of the two mixing valves

• DHW pump control

• return temperature protection

• weather-based nad weekly-based control

• optional analog 0-10 V DC output (e.g. for control gas boiler)

• two configurable voltage-free outputs

• two configurable voltage outputs

• the possibility of connecting three two-state room regulators

• the possibility of connecting room regulator with RS-communication

• the possibility of connecting EU-65 GSM module

• the possibility of connecting EU-505 ETHERNET or WiFi RS module

• the possibility of controlling two valves by means of additional EU-61v4 or EU-431N modules

• possibility of updating the software via USB

Equipment

• big, color, touch 4,3" LCD display

• DHW temperature sensor

• external sensor T8

• valve temperature sensors

• boiler and return water temperature sensor

• casing made of high quality materials resistant to high and low temperatures

EU-409n
Sterownik do instalacji

Power	230V 50Hz
Pumps output load	0,5 A
Valve output load	0,5 A
Voltage-free contact load	1A / 230 V / AC
Temperature setting range	40ºC - 80ºC
Temp. measurement accuracy	+/- 1ºC
Dimensions [mm]	360 x 220 x 80

Possibility of connecting 2 heating sources

Possibility of control additional device e.g circulation pump, lights, or, grass sprinkler
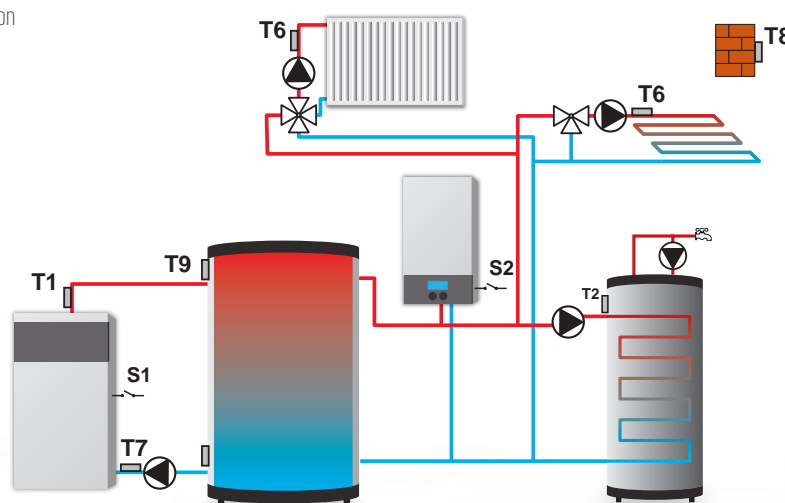
Functions

- smooth control of the three mixing valves
- DHW pump control
- return temperature protection
- weather-based and weekly-based control
- optional analog 0-10 V DC output (e.g. for control gas boiler)
- two configurable voltage-free outputs
- two configurable voltage outputs
- the possibility of connecting three two-state room regulators
- the possibility of connecting room regulator with RS-communication
- the possibility of connecting EU-65 GSM module
- the possibility of connecting EU-505 ETHERNET or WiFi RS module
- the possibility of controlling two valves by means of additional EU-61v4 or EU-431 N modules
- possibility of updating the software via USB

Equipment

- big, color, touch 4,3" LCD display
- DHW temperature sensor
- external sensor T8
- valve temperature sensors
- boiler and return water temperature sensor
- casing made of high quality materials resistant to high and low temperatures

NEW FUNCTIONS OFFERED BY
TWO-STATE ROOM REGULATORS

It concerns only the following series of room regulators: EU-290, EU-292 and R-6 s (EU).

OPTIMUM START Function

ROOM TEMPERATURE
OPTIMUM START OFF:

A - Set temperature   B - Heating startpoint

ROOM TEMPERATURE
OPTIMUM START ON:

A - Set temperature   B - Heating startpoint
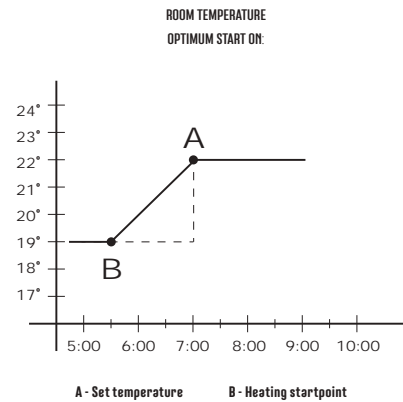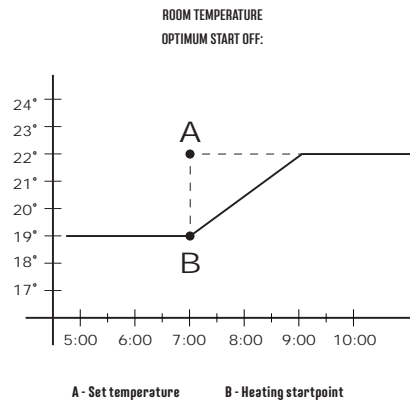
This function enables intelligent control of the heating device, which improves efficiency of the heating process and ensures greater comfort. The room regulator learns to adjust the CH boiler activation time in order to ensure heat comfort and reach the pre-set room temperature within the pre-set time.

HEATING / COOLING Function

This function enables the user to control both the heating and cooling devices. In order to configure the operation parameters, go to the menu and select the function which the regulator is to fulfil (heating or cooling).

Floor temperature sensor

The use of an additional floor temperature sensor enables the room regulator to control the room temperature considering the floor temperature (it is necessary to define the maximum and minimum floor temperature). Among other things, it allows the user to prevent the floor from cooling down in well sunlit rooms.

This function is available only in EU-292 and R-6 s (EU) room regulators (the sensor is not included in the standard set, it is sold separately).

Principle of operation

Two-state room regulator is intended for controlling the heating device (e.g. CH boiler, gas, oil or electric furnace). Its main task is to maintain the pre-set temperature in the flat by sending a signal to the heating device (contact opening) when the desired temperature is reached.

EU-292
Two-state room regulator

Power	Baterie 2xAA 1,5V
Wired communication	v3 - Two-core cable
Voltage-free contact load	1A / 230 V / AC
Wireless communication Frequency	v2 i R-6 s 868 MHz
Temp. measurement accuracy	+/- 0,5 ⁰C
Dimensions [mm]	121 x 95 x 24

Functions
• control of the room temperature
• **room temperature control based on floor temperature (in case of using floor temp. sensor)**
• weekly heating mode
• manual mode
• day/night mode
• **Optimum Start function**
• **heating/cooling function**

EU-292 v2
• wireless communication
• wireless external sensor (extra option)
• power supply with signal reciever
• controller stand

EU-292 v3
• wired communication

R-6 s (EU)
• wireless communication (only with EU-L-6)
• wireless external sensor (extra option)

Equipment
• front panel made of 3mm glass
• bulit-in room sensor
• temporary display backlit
• 2x AA 1,5V batteries

available in black or white casing

EU-290
Two-state room regulator

Power	Baterie 2xAA 1,5V
Wired communication	v3 - Two-core cable
Voltage-free contact load	1A / 230 V / AC
Wireless communication Frequency	v2 i R-6 868 MHz
Temp. measurement accuracy	+/- 0,5 ºC
Dimensions [mm]	134 x 95 x 24
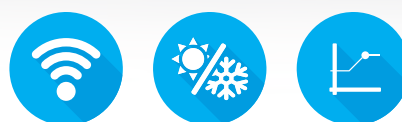
Functions
• control of the room temperature
• weekly heating mode
• manual mode
• day/night mode
• **Optimum Start function**
• **heating/cooling function**

EU-290 v2
• wireless communication
• wireless external sensor (extra option)
• power supply with signal reciever
• controller stand

EU-290 v3
• wired communication

R-6 (EU)
• wireless communication (only with EU-L-6)
• wireless external sensor (extra option)

Equipment
• bulit-in room sensor
• temporary display backlit
• 2x AA 1,5V batteries
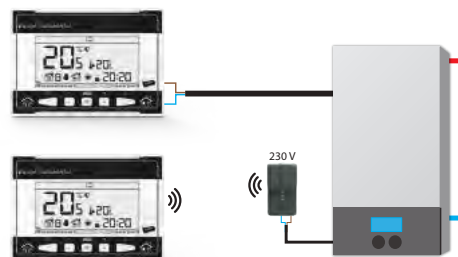
EU-294
Two-state room regulator

Power	Baterie 2xAA 1,5V
Wired communication	v1 - Two-core cable
Voltage-free contact load	1A / 230 V / AC
Wireless communication Frequency	v2 868 MHz
Temp. measurement accuracy	+/- 0,5 °C
Dimensions [mm]	80 x 80 x 20

Functions
• room temperature control with 0,1°C accuracy
• hysteresis
• wired or wireless communication

EU-294 v1
• wired communication

EU-294 v2
• wireless communication
• power supply with signal reciever

Equipment
• bulit-in room sensor
• 2x AAA 1,5V batteries
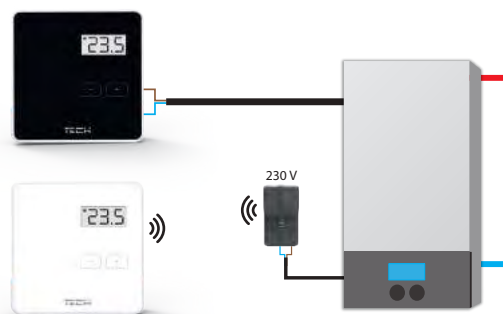
EU-282, EU-283
EU-283 C
Two-state room regulator
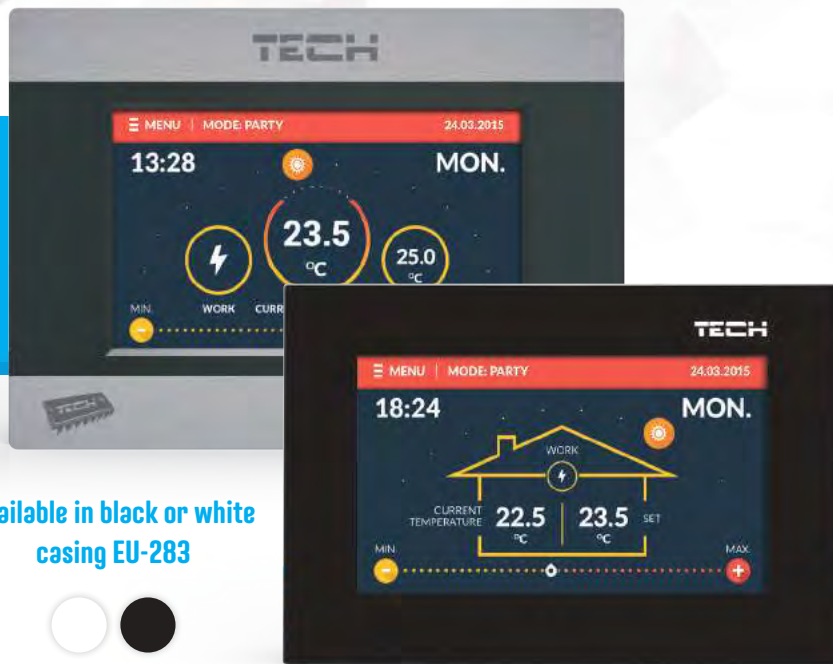
Power	Power supply - operating module
Wired communication	EU-282 i EU-283 two-core cable
Wireless communication Frequency	EU-283 C 868 MHz
Voltage-free contact load in power supply	1A / 230 V / AC
Temp. measurement accuracy	+/- 0,5 ºC
Dimensions [mm] EU-282	145 x 102 x 24
Dimensions [mm] EU-283 i EU-283 C	127 x 90 x 20

available in black or white casing EU-283

USB | USB | 2mm

Functions

• control of the room temperature

• alarm

• calendar

• parental lock with PIN code

• brightness of screen during night or day

• 6 operating modes: **manual mode**, **day/night mode**, **party mode**, **holiday break mode, anti-freeze mode, weekly mode**

Wireless version EU-283 C

• colour, 4,3" touchscreen

• bulit-in room sensor

• power supply 12V DC – signal reciever

• easy montage in electrical box (ø60mm)

• power 230V 50Hz

24 20

⌀ 60
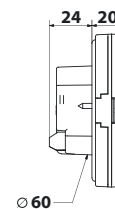
EU-283 C

Equipment

• colour, 4,3" touchscreen

• bulit-in room sensor

• power supply 12V DC – executing module (communication only in EU-282 and EU-283)

• available in black or white casing

EU-283

EU-282   230 V

EU-283C   230 V   230 V
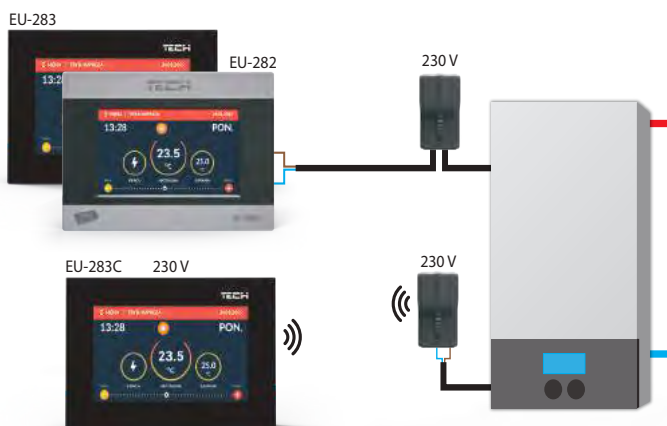
EU-280, EU-281
EU-281 C
Room regulator with RS communication

available in black or white casing EU-281

Power	Power supply - operating module
Wired communication	EU-280 i EU-281 cord 4x0,14 mm^2
Wireless communication Frequency	EU-281 C 868 MHz
Temp. measurement accuracy	+/- 0,5 ºC
Dimensions [mm] EU-280	145 x 102 x 24
Dimensions [mm] EU-281 i EU-281 C	127 x 90 x 20

RS USB USB 2mm

Functions
• control of the room temperature
• control of the central heating boiler temperature
• control of the DHW temperature
• control of the mixing valves temperature
• outside temperature monitoring
• weekly-based heating mode
• alarm
• parental lock
• displaying current room and CH boiler temperature
• possibility of updating software via USB port (from version 4.0)

Equipment EU-280 i EU-281
• large, clear, colour touch 4,3"-LCD display
• front panel made of 2mm glass (EU-281)
• built-in room sensor
• power supply 12V DC
• RS communication cable for the boiler controller
• USB port

Principle of operation
The room regulator allows convenient temperature control of the room, CH boiler, water tank and the mixing valves without the need to go to he boiler room. The regulator requires cooperation with TECH main controller with RS communication. A large clear colour touch screen makes it easy to read and change the controller parameters.

Equipment EU-281 C
• large, clear, colour touch 4,3"-LCD display
• front panel made of 2mm glass
• built-in room sensor
• USB port
• Module - signal reciever from main controller
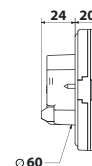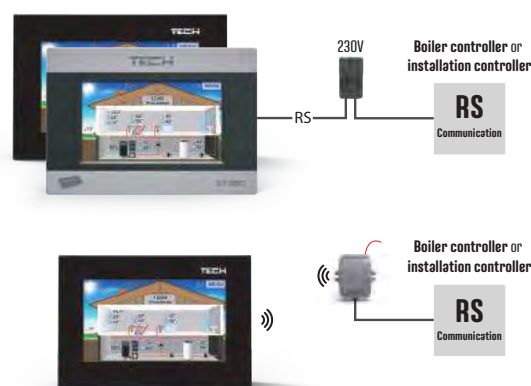
24 20

60

EU-281 C

230V **Boiler controller** or **installation controller**

RS **RS** Communication

Boiler controller or **installation controller**

RS Communication

Wireless version (extra option)
• in cooperation with EU-260 set for wireless RS communication

EU-296
Room regulator with RS communication

Power	Power supply - operating module
Wired communication RS	cord 4 x 0,14 mm²
Temp. measurement accuracy	+/- 0,5 ºC
Dimensions [mm]	104 x 88 x 18

Functions
• control of the room temperature
• control of the central heating boiler temperature
• control of the DHW temperature
• outside temperature monitoring (in cooperation with valve module)
• control of the mixing valve (available only with valve module)
• weekly heating mode
• parental lock
• automatic screen brightness adjust

Equipment
• clear, color display
• front panel made of 3mm glass
• built-in room sensor
• built-in ambient light sensor
• RS communication cable for the boiler controller
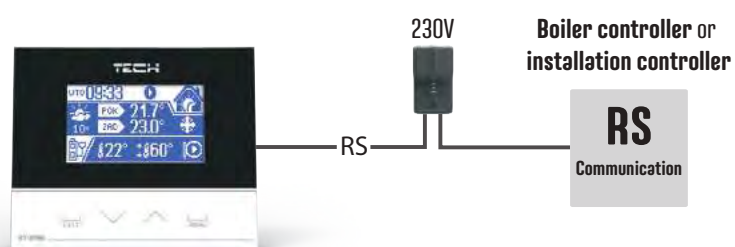
Wireless version (extra option)
• in cooperation with EU-260 set for wireless RS communication

Principle of operation
EU-296 type room regulator is intended for controlling the temperature of central heating, domestic hot water and room temperature, and it can perform a weekly heating program. Application of the regulator provides convenient control of room temperature and the temperature of domestic hot water directly from home without the need to go to the boiler room. Room regulator works only with main controller equipped with RS communication by TECH. Clear color display with backlit makes it easy to read and change the controller parameters.
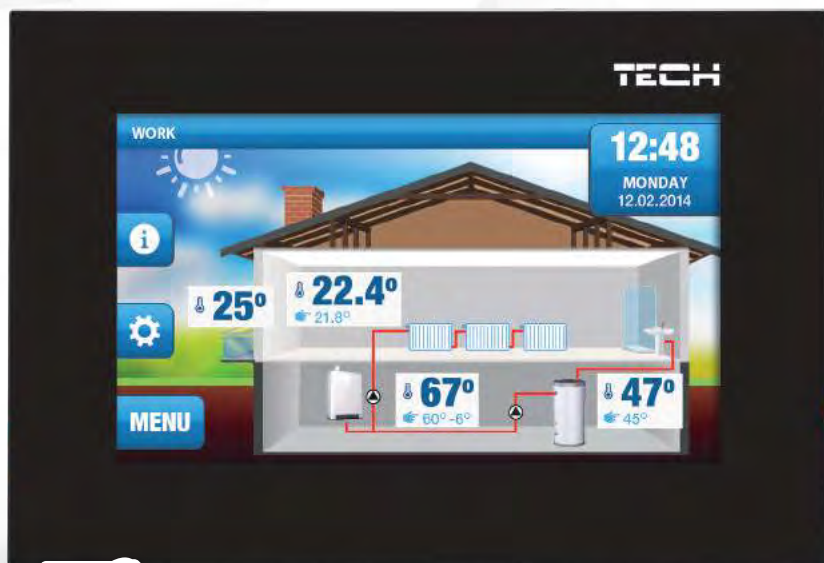
EU-2801
Room regulator with OpenTherm communication

available in black or white casing

Power	230 V
Wired communication	two-core cable
Temp. measurement accuracy	+/- 0,5 ºC
Dimensions [mm]	127 x 90 x 20

Functions

- smart maintaining the room set temperature
- smart control of the CH boiler set temperature
- changing the room set temperature basing on the outside temperature (weather-based control)
- outside temperature view
- weekly-based heating program for room and boiler
- displaying alarms from heating device
- acces to temperature charts of heating device
- alarm-clock
- parental lock

Equipment

- large, clear, colour-touchscreen
- bulit-in room sensor
- flush-mountable
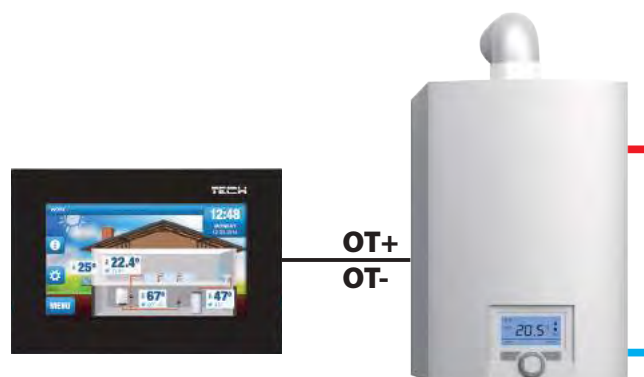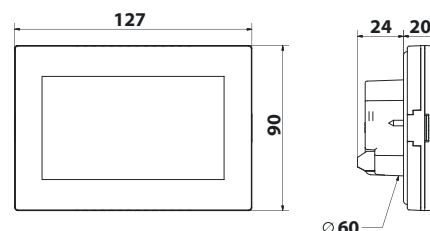
Principle of operation

Use of room regulator provides intelligent maintain the desired room temperature by automatically adjusting the proportional boiler temperature. Regulator can adjust the parameters of control algorithm by user. The device is compatible with OpenTherm/plu (OT+) and OpenTherm/lite (OT-) protocol. Large, clear, colour-touchscreen, alows convinient control and modulation of the regulator parameters. Easy installation on the wall, aesthetic look, touchscreen and reasonable price are another advantages of the controller.

OT+
OT-

TECH

21

RADIATOR HEATING CONTROL

Wireless control of STT-868 thermoelectric actuators. Controllers for STT-868 wireless thermoelectric actuators (max. 6 pcs per zone). Regulators are intented to keep constat temperature in particular zones using thermoelectric actuators. Simple system maintain and supervision via Internet and configurable contact output (in WiFi-8S) are main assets of controllers.

WIFI-8S

EU-8S

8 HEATING ZONES

SUPERVISION BY WEB APP.EMODUL.EU

WiFi-8S
WiFi controller for wireless thermoelectric actuators STT-868

POBIERZ Z
Google play

Power	5V DC
Communication	Wireless 868 MHz
Voltage-free contact load	1A / 230 V / AC
Temp. measurement accuracy	+/- 0,5 ºC
Dimensions [mm]	105 x 135 x 28

Functions

• Controlling a max of 8 different zones by means of:

-embedded temperature sensor

-one **EU-C-7 p** wire sensor

-possible connection of additional 6 **EU-C-8** wireless sensors or room regulators **EU-R-8 b** or **EU-R-8 z**

• **NO/NC** relay output (e.g. to control the heating device which is activated according to the need to additionally heat a room)

• for each zone, it is possible to connect up to 6 pc. wireless units of thermoelectrical **STT-868** wireless actuators

• Possible software update via a USB port

• Either zone may have assigned its individual operational mode (constant temperature, time limitation or 6 various working schedules)

• Operating wireless external sensor **EU-C-8 zr**

Equipment:

• 5V Power supply unit

• an additional **EU-C-7 p** wired temperature sensor

Supervision by web app.
www.emodul.eu

20ºC		21ºC	
MAX 6 pcs		MAX 6 pcs	
S4		S5	
21ºC		20ºC	
MAX 6 pcs		MAX 6 pcs	
S3		S6	
23ºC		22ºC	
MAX 6 pcs		MAX 6 pcs	
S2		S7	
22ºC		23ºC	
MAX 6 pcs		MAX 6 pcs	
S1		S8	

HEATING DEVICE
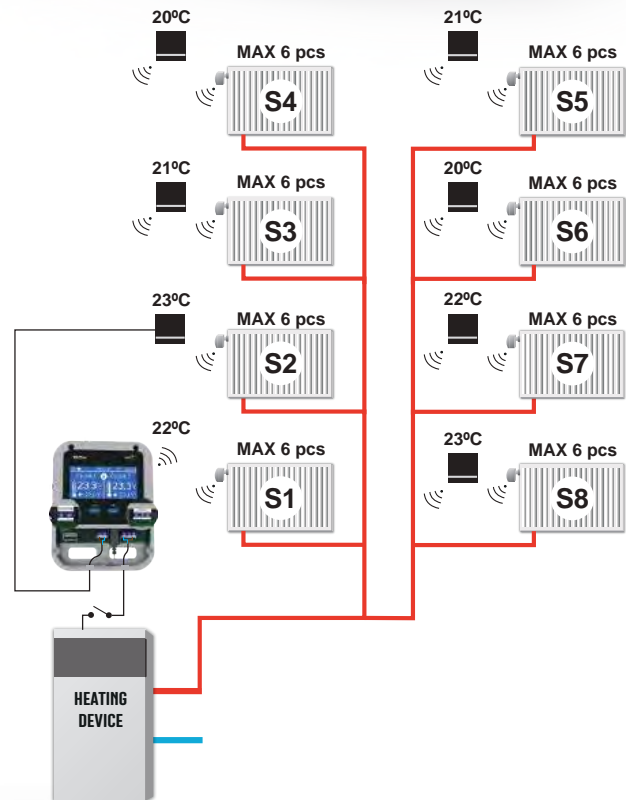
ZONE S1 - embedded temperature sensor (operating max. 6 x STT-868)
ZONE S2 - wired temperature sensor (operating max. 6 x STT-868)
ZONES S3 - **S8** - wireless temperature sensor (operating max. 6 x STT-868)

EU-8S
Room regulator for wireless thermoelectric actuators STT-868

Power	230V 50Hz
Communication Frequency	Wireless 868 MHz
Temp. measurement accuracy	+/- 0,5 ºC
Dimensions [mm]	127 x 90 x 20

Functions

• Controlling a max of 8 different zones by means of:
   -embedded temperature sensor
   -possible connection of additional 7 pcs. **EU-C-8** wireless sensors or room regulators **EU-R-8 b** or **EU-R-8 z**
• For each zone, it is possible to connect up to 6 pc. wireless **STT-868** thermoelectrical actuators
• Settings display: Temperature, date, hour, alarm clock
• A screen adjusting its brightness depending on the current time of day
• Possible software update via a USB port
• each zone may have assigned its individual operational mode (constant temperature, time limitation or 6 various working schedules)

Equipment

• front panel made of 2mm glass
• wireless communication
• large, clear, colour touchscreen,
• embedded temperature sensor
• flush-mountable installation

Principle of operation

Wireless Control of Thermoelectrical Actuators.

The wireless room regulator for control of the STT-868 thermoelectrical actuators (maximum 6 pcs per zone). The regulator is intended to maintain the temperature at a constant level in rooms by means of servomotors. Easy sub-plaster installation in an electrical box (ø60mm). Controllers requires 230V 50Hz power supply..

available in black or white casing
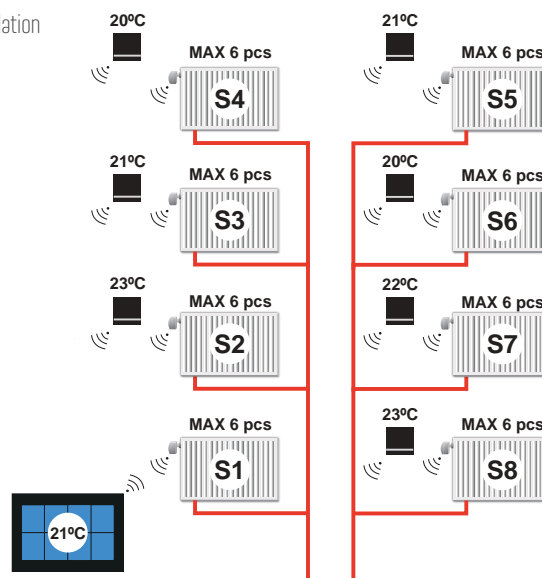
ZONE S1 - embedded temperature sensor (operating max. 6 x STT-868)
ZONES S2 - S8 - wireless temperature sensor (operating max. 6 x STT-868)

EU-2807

A set for controlling wireless thermostatic actuators

available in black or white casing

Power	230V 50Hz
Komunikacja Frequency	Bezprzewodowa 868 MHz
Temp. measurement accuracy	+/- 0,5 ºC
Dimensions [mm]	127 x 90 x 20

2mm

USB

Functions

- wireless communication with **STT-868** actuator (max. 6 pcs)
- control of the room temperature
- displaying settings: temperature, date, time and alarm
- screen brightness adjusted to the current time of the day
- possibility of updating the software via USB
- strefa może mieć przypisany swój indywidualny tryb pracy (stała temperatura, ograniczenie czasu lub 6 różnych harmonogramów pracy)

Equipment

- front panel made of 2mm glass
- wireless communication
- large, clear, color touch screen
- built-in temperature sensor
- flush-mountable
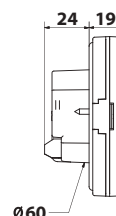
24 19

ø60

Principle of operation

Wireless control of thermoelectric actuators.

Wireless room regulator for controlling **STT-868** thermoelectric actuators (up to 6). The main task of the regulator is to maintain the room temperature on a stable level by means of actuators. Easy installation in a flush mounting box (ø60mm). Powered with 230V 50Hz

21ºC
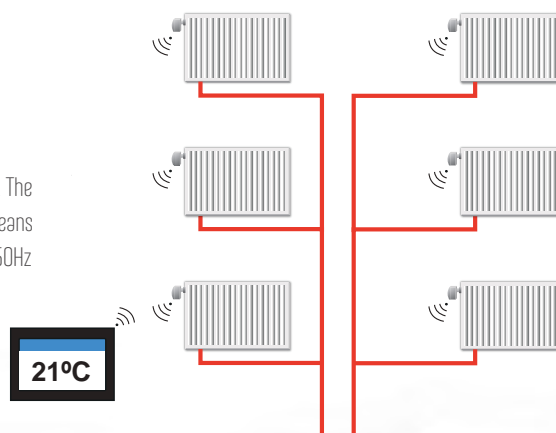
EU-2906

A set for controlling wireless thermostatic actuators

Power	230V 50Hz
Communication Frequency	Wireless 868 MHz
Temp. measurement accuracy	+/- 0,5 ºC
Dimensions [mm]	104 x 88 x 18

Functions

• wireless communication with STT-868 actuator (max 6 pcs)

• control of the room temperature

• displaying settings: temperature, date, time and alarm

• screen brightness adjusted to the current time of the day

• possibility of updating the software via USB

Equipment

• front panel made of 3mm glass

• wireless communication

• clear LCD display

• touch buttons

• built-in temperature sensor
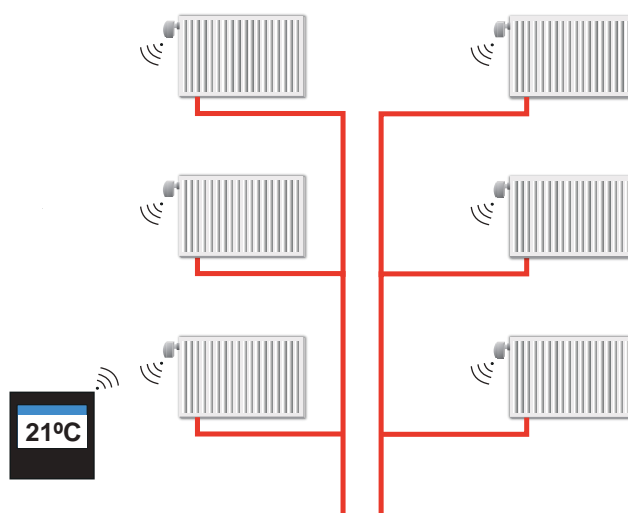
• flush-mountable

Principle of operation

Wireless control of thermoelectric actuators.

Wireless room regulator for controlling STT-868 thermoelectric actuators (up to 6). The main task of the regulator is to maintain the room temperature on a stable level by means of actuators. Easy installation in a flush mounting box (ø60mm). Powered with 230V 50Hz

EU-21 Solar, EU-400
Solar collector controller

Power	230V 50Hz
Pump output load EU-21 SOLAR	1 A
Pump output load EU-400	0,5 A
Additional outputs load	1 A
Pump/valve output load	1 A
Durability the solar temperature sensor	-40ºC - 180ºC
Dimensions [mm]	110 x 163 x 57

Functions EU-400

• control of the pump

• pump speed control

• one configurable voltage output

• operating modes (vacation and defrosting)

• supervision and handling of the solar system operation

• protection against overheating and freezing of the collector

• anti-stop function

Equipment

• LED display

• collector temperature sensor

• heat accumulator temperature sensor

• casing made of high quality materials resistant to high and lowtemperatures

Functions EU-21 Solar

• control of the solar pump

• supervision and handling of the solar system operation

• protection against overheating and freezing of the collector

• anti-stop function
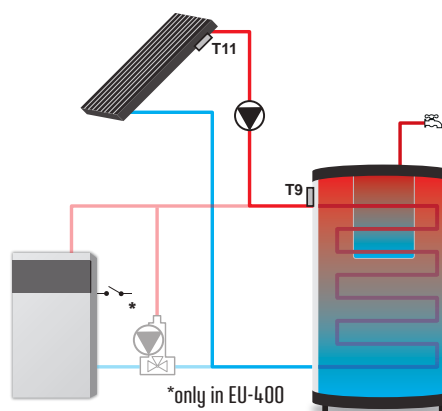
Principle of operation

EU-400 regulator is intended for controlling solar collector installation. It controls the main pump (collector pump) using temperature data measured on the collector and accumulation tank.

Optionally, it is possible to connect additional devices such as mixing pump or electric heater as well as to send a signal to initiate fire-up of the CH boiler. Controlling the mixing pump and sending CH boiler fire-up signal may be done directly from the controller whereas controlling the heater requires an additional signal relay.

EU-401n PWM
Solar collector controller

Zasilanie	230V 50Hz
Obciążenie wyjścia pompy	1 A
Obciążenie wyjścia dodatkowego	1 A
Obciążenie wyjścia pompy/zaworu	1 A
Wytrzymałość temperaturowa czujnika solarnego	-40ºC - 180ºC
Wymiary sterownika [mm]	110 x 163 x 57

Functions

• control of the pumps

• supervision and handling of the solar system operation

• protection against overheating and freezing of the collector

Equipment

• large, clear LCD display

• collector temperature sensor

• heat accumulator temperature sensor

• casing made of high quality materials resistant to high and low temperatures
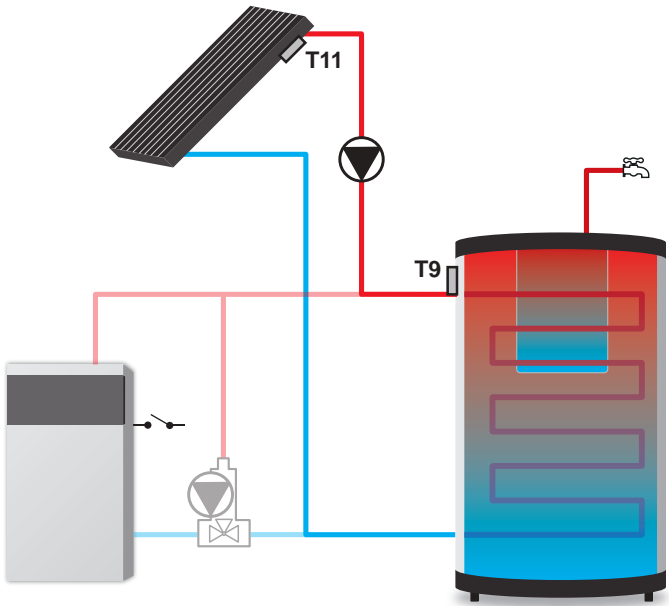
Principle of operation

EU-401n thermoregulator is intended for operation of solar collector systems. This device controls the main (collector) pump on the basis of temperature measurement on the collector and in the accumulation tank. There is an optional possibility of connecting additional devices such as a mixing pump or an electric heater as well as to send a signal to the CH boiler to fire it up. Control of the circulation pump and sending the firing-up signal to the CH boiler is possible directly from the controller and in the case of the heater control an additional signal relay is necessary

EU-402n PWM
Solar collector controller

Power	230V 50Hz
Pump output load	1 A
Additional outputs load	1 A
Pump/valve output load	1 A
Durability the solar temperature sensor	-40°C - 180°C
Dimensions [mm]	110 x 163 x 57

RS

Functions

- control of the pump via PWM signal
- supervision and handling of the solar system operation for 17 configurations of the system
- protection against overheating and freezing of the collector
- the possibility of connecting EU-65 GSM module
- the possibility of connecting EU-505 ETHERNET module
- the possibility of connecting additional device:
- – circulation pump
- – electric heater
- – sending a signal to the CH boiler to fire it up

Equipment

- large, clear LCD display
- collector temperature sensor
- heat accumulator temperature sensor
- casing made of high quality materials resistant to high and low temperatures

17 diagrams to choose from

www.techsterowniki.pl
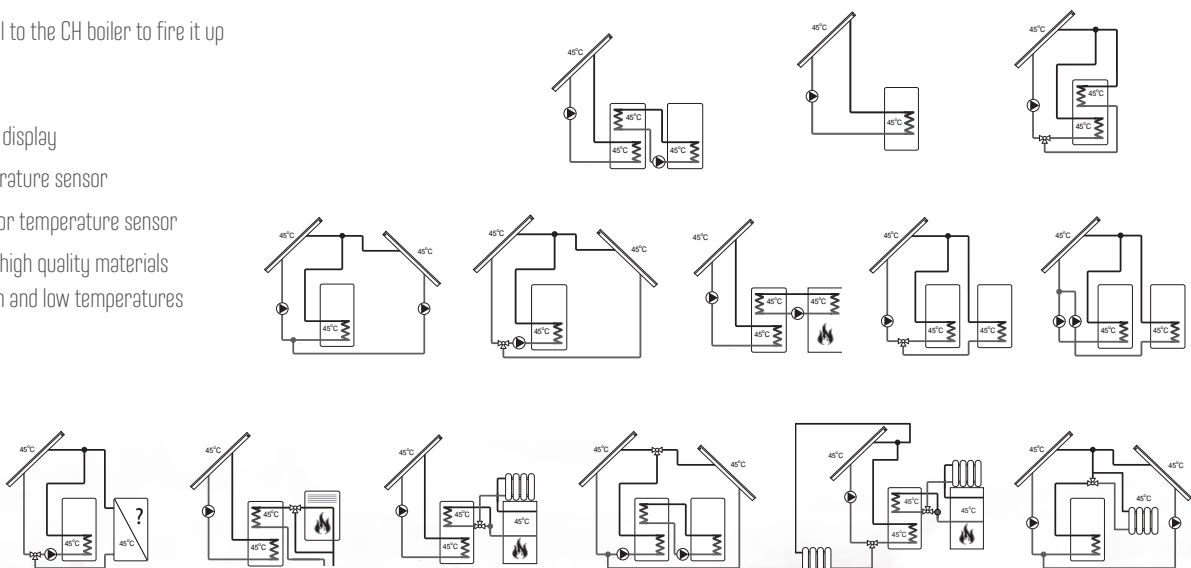
EU-460 PWM
Solar collector controller

| Power	230V 50Hz
Pump output load	1 A
Additional outputs load	1 A
Pump/valve output load	1 A
Durability the solar temperature sensor	-40ºC - 180ºC
Dimensions [mm]	110 x 163 x 57

Functions

• control of the pump via PWM signal

• supervision and handling of the solar system operation for 19 configurations of the system

• protection against overheating and freezing of the collector

• the possibility of connecting EU-65 GSM module

• the possibility of connecting EU-505 ETHERNET module

• the possibility of connecting additional device:

– circulation pump

– electric heater

– sending a signal to the CH boiler to fire it up

Equipment

• large, clear, touch, color display

• collector temperature sensor

• heat accumulator temperature sensor

• casing made of high quality materials resistant to high and low temperatures

19 diagrams to choose from
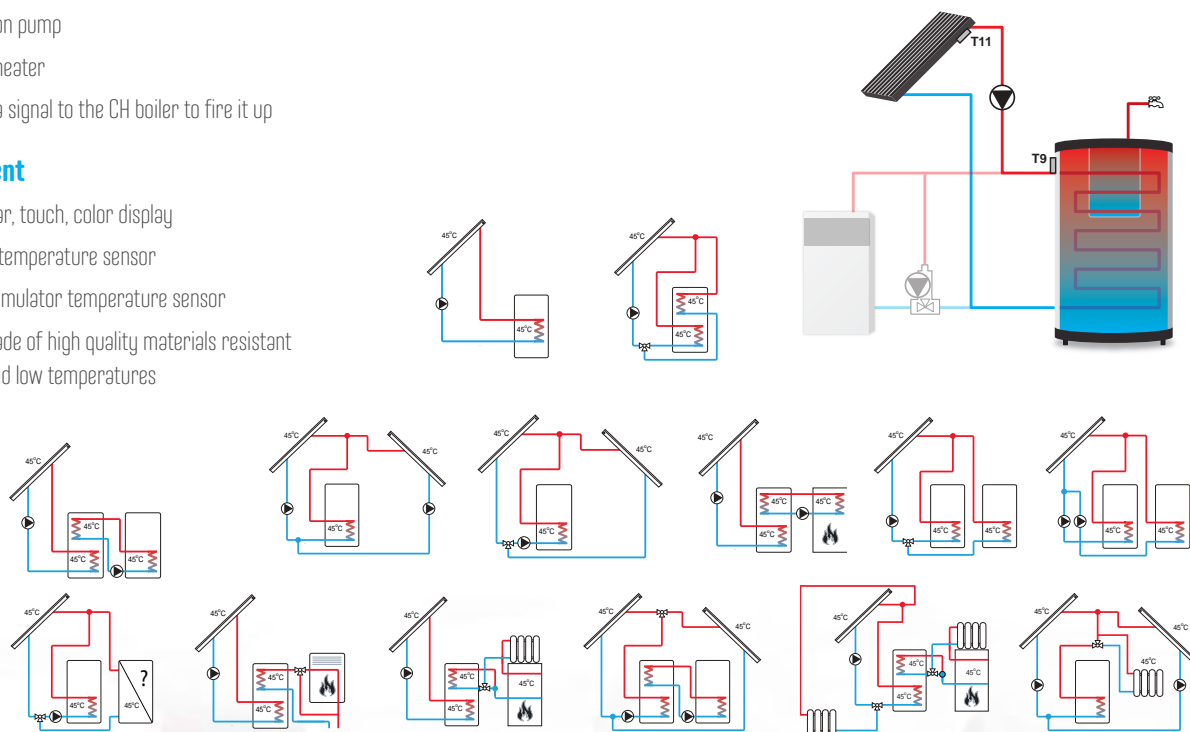
EU-65 GSM
Specialized controller
/ additional module

Power	9 - 12V DC
Zakres nastaw temperatur alarmowych	-10ºC - 85ºC
Temp. measurement accuracy	+/- 1ºC
Dimensions [mm]	120 x 80 x 42

The device may operate independently

Functions
• cooperation with the controllers with RS communication
• control of the sensors temperatures by text messages
• text message and phone notifications (incoming call) about boiler alerts
• the possibility of changing the set temperatures via mobile phone
• module protection with an authentication code

Equipment
• power supply unit
• RS communication cable for the boiler controller
• GSM antenna

Wersja bezprzewodowa (opcja dodatkowa)
• optional with set for a wireless RS communication EU-260

Principle of operation
GSM module cooperates with TECH controllers with RS communication and enables remote control of the boiler with the use of a mobile phone. The user is informed with an SMS about each alert of the boiler controller. Additionally, by sending an appropriate SMS at any time, the user receives information about the current temperature of all active sensors. After entering an authentication code it is also possible to remotely change the set temperatures.

EU-65 module is equipped with 4 additional sensor inputs (2 temperature imputs and 2 contact inputs) operating independently of the CH boiler controller. They may be used in any configuration. When the temperature sensor reaches the maximum or minimum temperature value, the module automatically sends an SMS with appropriate information. A similar procedure is performed in the case of closing or opening of the contact input.

CONTROLLING THE HEATING SYSTEM VIA THE INTERNET

EU-505 INTERNET

Controlling the heating system and the main controller / **LAN connection**

EU-507 INTERNET

Controlling the underfloor heating system / **LAN connection**

WIFI RS - INTERNET

Controlling the heating system and the main controller
or the underfloor heating system / **WiFi connection**

WIFI PK - INTERNET TEMPERATURE REGULATOR

NO/NC heating device control / **WiFi connection**

EU-505 Ethernet
Specialized controller
/ additional module

RS ▶ Google play

Cooperates with older controller versions

Functions available with the latest controller versions
• remote control via the Internet
• possibility of monitoring all connected devices
• possibility of editing all parameters of the main controller
  (in the menu structure)
• possibility of viewing the temperature history
• possibility of viewing the event log (alarms and parameter changes)
• possibility of assigning any number of passwords
  (to access menu, events, statistics)
• possibility of editing the pre-set temperature via a room regulator
• possibility of controlling many modules via one user account
• e-mail notification in case of alarms
• optional SMS notification in case of alarms (subscription necessary)

Equipment
• power supply unit 9V DC
• RS T-connection
• RS communication cable for the boiler controller

Power	5V DC
LAN Plug	RJ 45
Controller Plug	RJ 12
Dimensions [mm]	120 x 80 x 31

Wireless version (extra option)
• optional with set for a wireless RS communication EU-260

Functions available with older controller versions
• remote control of the CH boiler operation via the Internet or a local network
• graphic interface offering animations on the home computer screen
• possibility of changing the pre-set temperature values for both the
  pumps and the mixing valves
• possibility of changing the pre-set temperatures via a room regulator
  with RS communication
• possibility of viewing the sensor temperatures
• possibility of viewing the history and the alarm types
• mobile version available at Google Play

WiFi RS
Specialized controller
/ additional module

WiFi communication
Cooperates with older controller versions

Functions available with the latest controller versions
• remote control via the Internet

• possibility of monitoring all connected devices

• possibility of editing all parameters of the main controller
  (in the menu structure)

• possibility of viewing the temperature history

• possibility of viewing the event log (alarms and parameter changes)

• possibility of assigning any number of passwords
  (to access menu, events, statistics)

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• graphic interface offering animations on the home computer screen

• possibility of changing the pre-set temperature values for both the
  pumps and the mixing valves

• possibility of changing the pre-set temperatures via a room regulator
  with RS communication

• possibility of viewing the sensor temperatures

• possibility of viewing the history and the alarm types

• mobile version available at Google Play

Equipment
• power supply unit 9V DC

• RS T-connection

• RS communication cable for the boiler controller

Power	5V DC
Controller plug	RJ 12
Dimensions [mm]	105 x 135 x 28

WiFi PK
Internet temperature regulator

INTERNET TEMPERATURE REGULATOR
NO/NC heating device control

Functions

• **NO/NC** relay output (e.g. for controlling the heating device which is activated when the room temperature is too low)
• bulid-in room sensor
• one wired sensor **C-7 p (EU)**
• possibility of selection the sensor to operation module (bulid-in, external or both)

Power	5V DC
Voltage-free contact load	1A / 230 V / AC
Temp. measurement accuracy	+/- 1ºC
Dimensions [mm]	105 x 135 x 28

Equipment

• 5V power supply
• one additional wired sensor **C-7 p (EU)**

Supervision through **www.emodul.eu**

NEW WEB **APP**

USB PORT

POWER SUPPLY 5V DC

t1

t2

HEATING DEVICE

STT-868
Wireless electric actuator

STZ-120
Siłownik zaworu mieszającego
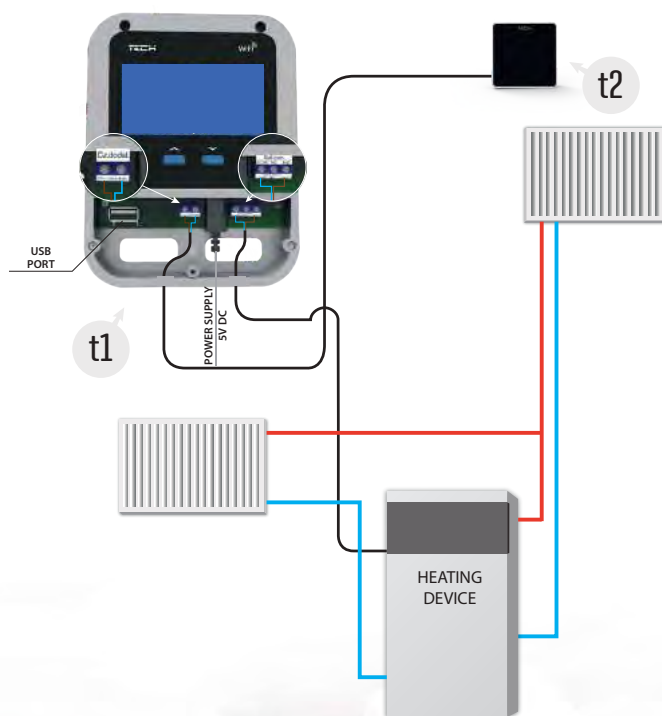
Principle of operation

STT-868 wireless electric actuators allow the user to easily and efficiently manage the temperature in particular heating zones of a building.

The system controlling the thermostat actuator ensures optimum heating comfort and contributes to significant energy saving. This type of actuator may be used both in the heating and cooling systems. It is compatible with WIFI-8S, EU-8S, EU-2806 and EU-2807 room regulators and external controllers for thermostatic valves (L-8).

Technical data:

output – nut M30x1,5

communication – wireless, frequency: 868MHz

power supply – 2x AA 1,5V batteries

Mixing valve actuator

the actuator with 3-point signal control in 230V AC (50 Hz).

it comes with 1,5m cable rotation time 120 s.

* standard connection for ESBE valves

Connection sets for the following valves available on demand:

Meibes, Watts, Honeywell Corona, Lovato

	0°– 45°	45°– 90°
NO		
NC		

Contactor module

Bipolar contactor module with protection

USE: It is used to control single- or multi-polar electric devices.

It is mainly used for controlling lighting, heating systems, ventilation systems, engines or pumps.

Equipment:
- contactor
- fuse
- wiring (power supply, male plug and female plug)

Technical data:
Nominal current: 20 A
Coil power supply: 230 V AC (50 Hz)
Maximum power consumption (coil) : 8 VA
Maximum load up to 4kW (depending on the protection used)

TECH

FLOOR HEATING CONTROL

Considerable savings in energy consumption due to precise temperature management in individual rooms of the building

Possible wireless connection of the entire system eliminates additional installation costs

A casing made of high quality materials resistant to high and low temperature

Simple and convenient installation of the actuators on distributor strip

The controller's casing can be adapted to be installed on a DIN rail and directly on a wall

Any temperature control configuration possible (sensor, room regulator)

EU-L-5
Controller for thermostatic actuators

WIRED CONTROLLER FOR THERMOSTATIC ACTUATORS (8 SECTIONS)

Functions:

Possibility of controlling up to 22 thermostatic actuators via 8 room regulators:
– 3 room regulators may support 12 actuators (the max. of 4 actuators per one regulator)
– 5 room regulators may support 10 actuators (the max. of 2 actuators per one regulator)
• one 230V output for a pump
• voltage-free contact (for controlling additional heating device)

Power	230V 50Hz
Pump output load	0,5 A
1 - 8 outputs load	0,3 A
Pot. free output	• / 1 A
Communication	Wired
Dimensions [mm]	335 x 105 x 75

SYSTEM ELEMENTS:

| 23ºC | Wired two-state room regulator |

Thermoelectric actuator
STT-230/2 or STT-230/2 S

Power supply 230V 50Hz

Power supply for another controller

Pump control via another controller

Heating device
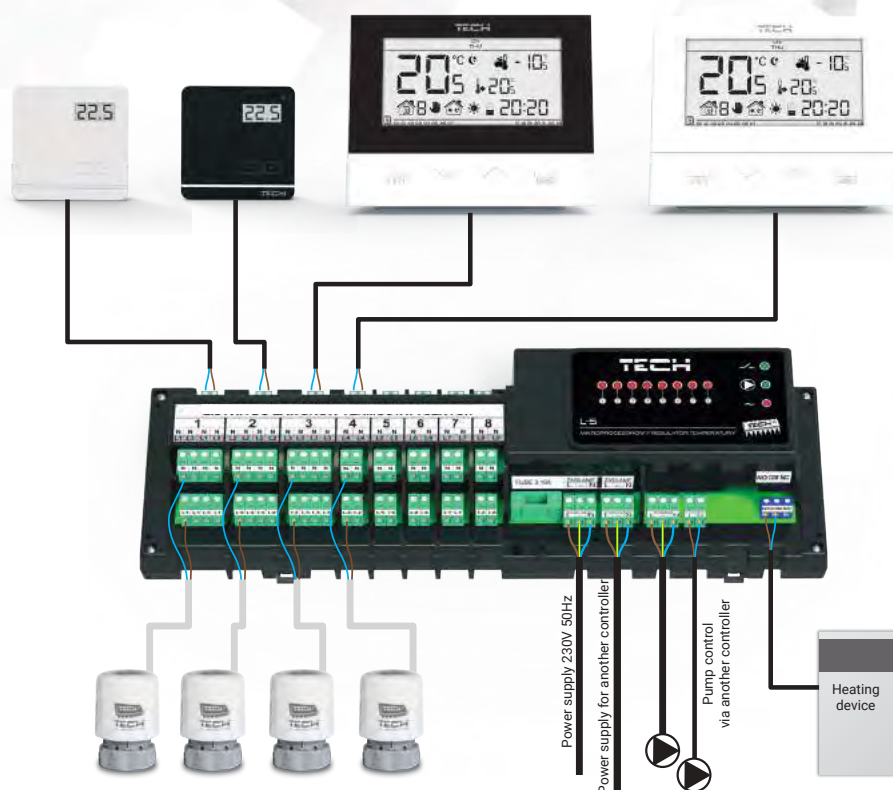
System extensions

EU-294 v1 WIRED TWO-STATE ROOM REGULATOR

Casing: Black or white

Functions: room temperature control, heating program with time limit, wired communication with EU-L-5 controller

Equipment: bulit-in room temperature sensor, LCD display, 2xAAA Batteries, no display backlit

Dimensions: 80 x 80 x 20 mm

EU-290 v3 WIRED TWO-STATE ROOM REGULATOR

Functions: room temperature control, weekly heating program, manual mode, day/night program, temporary display backlit, Optimum Start function, heating/cooling function, wired communication with EU-L-5 controller

Equipment: bulit-in room temperature sensor, 2 x AA 1,5V batteries

Dimensions: 134 x 95 x 24 mm

EU-292 v3 WIRED TWO-STATE ROOM REGULATOR

Casing: Black or white

Functions: room temperature control, weekly heating program, manual mode, day/night program, temporary display backlit, temperature control on the basis of floor temperature (in case of using floor sensor), Optimum Start function, heating/cooling function, wired communication with EU-L-5 controller

Equipment: bulit-in room temperature sensor, front panel made of 3mm glass

Dimensions: 121 x 95 x 24 mm

STT-230/2 THERMOELECTRIC ACTUATOR

M30x1,5 - M28x1,5

Technical data: Fittings: nut with M30 x 1,5 screw thread or M28x1,5, Stroke: 3,2 mm, Class: IP54. Opening time: under 5 min. Max. operation temperature: 60°C. Power supply: 230V 50Hz

STT-230/2 S THERMOELECTRIC ACTUATOR

Technical data: Fittings: - nut with M30x1,5 screw, Class: - IP50. Opening time: around 3 mins. Max. operation temperature: 60 °C. Power supply: 230V 50Hz

EU-L-6
Controller for
thermostatic actuators

**WIRELESS CONTROLLER FOR THERMOSTATIC ACTUATORS
(6 SECTIONS + MIXING VALVE OR 8 SECTIONS)**

Functions:

Possibility of controlling up to 18 thermostatic actuators via 6 room regulators or room sensors:
EU-C-6r, EU-R-6, EU-R-6 s or EU-R-6 k +mixing valve or 8 room regulators or room sensors: **EU-C-6r, EU-R-6, EU-R-6 s** or **EU-R-6 k**

– 3 room regulators or room sensors may support 12 actuators (max. 4 actuators per one regulator/sensor)
– 3 room regulators or room sensors may support 6 actuators (max. 2 actuators per one regulator/sensor)
  or 5 room regulators or room sensors in case of mixing valve option enabled

• control of the mixing valve
• one 230V output for pump
• voltage-free contact (e.g. for controlling the heating device)
• possibility of connecting **EU-M-6** control panel

Power	230V 50Hz
Pump output load	0,5 A
Outputs 1 - 8 load	0,3 A
Pot. free output	• / 1 A
Communication Operating frequency	Wireless 868 MHz
Dimensions [mm]	335 x 105 x 75

Simplified installation diagram
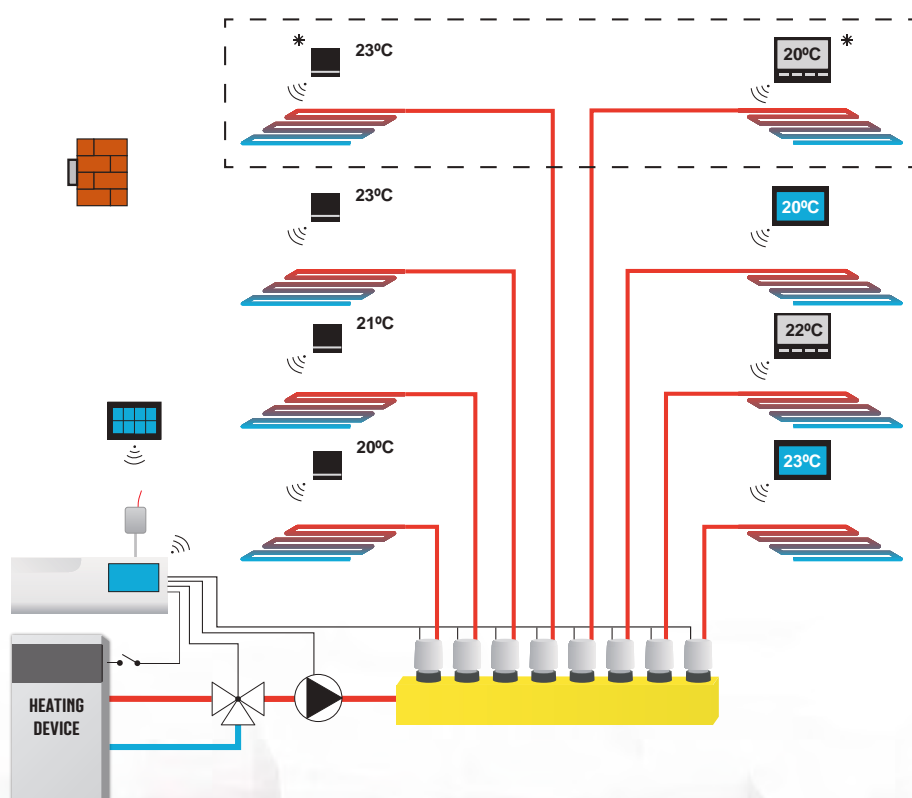
SYSTEM ELEMENTS

Control Panel

Room regulator
(colour, touchscreen)

Two-state
room regulator

Temperature sensor

Thermoelectric actuator
STT-230/2 or STT-230/2 S

∗ Additional zones available
after deactivating valve option

Outside temp. sensor

HEATING
DEVICE

WIRELESS FLOOR HEATING SYSTEM - 6 SERIES

Power supply 230V 50Hz

Heating device

System extensions

EU-C-6 r WIRELESS ROOM TEMPERATURE SENSOR
Casing: Black or white

Sensor dedicated for EU-L-6 controller, power: 2xAAA Batteries

Dimensions: 80 x 80 x 16 mm

EU-R-6 k WIRELESS ROOM REGULATOR (FLUSH-MOUNTABLE)
Casing: Black or white

Room regulator EU-R-6k is intended for controling thermoelectic actuators using the EU-L-6 controler. The main task of the regulator is to maintain the room temperature on the stable level by sending the signal to main controller (contact open) with the information about heating necessity of heating to the set temperature. Communication with the main controller is wireless. Easy to montage in electrical box (ø60mm). Power supply: 230V 50Hz.

Dimensions: 127 x 90 x 20 mm

EU-R-6 s WIRELESS ROOM REGULATOR (TWO-STATE)
Casing: Black or white

Functions: room temperature control, weekly heating program, manual mode, day/night program, temporary display backlit, temperature control on the basis of floor temperature (in case of using floor sensor), Optimum Start function, heating/cooling function, wireless communication with EU-L-6 controller

Equipment: wireless communication (only with EU-L-6), bulit-in room temperature sensor, stand for controller, 2XAA 1,5V batteries, front panel made of 3mm glass

Dimensions: 121 x 95 x 24 mm

EU-R-6 WIRELESS ROOM REGULATOR (TWO-STATE)

Functions: room temperature control, weekly heating program, manual mode, day/night program, temporary display backlit, Optimum Start function, heating/cooling function, wireless communication with EU-L-6 controller

Equipment: bulit-in room temperature sensor, stand for controller, 2XAA 1,5V batteries, controller stand

Dimensions: 134 x 95 x 24 mm

EU-M-6 WIRELESS CONTROL PANEL (FLUSH-MOUNTABLE)
Casing: Black or white

Control panel EU-M-6 is intended for controling subordinate room regulators. In case of using EU-R-6k room regulators, user is allowed to change the set temperature for each of them and lock the operation mode. After connecting two-state room regulators (EU-R-6 or EU-R-6s), user is allowed to preview current mixing valve state (open/closed). After connecting EU-C-6r room temperature sensors user is allowed to change the set temperature for each of them. A large clear colour touch screen makes it easy to read and change the controller parameters. Easy to montage in electrical box (ø60mm). Power supply: 230V 50Hz.

Dimensions: 127 x 90 x 20 mm

STT-230/2 THERMOELECTRIC ACTUATOR
M30x1,5 - M28x1,5

Technical data: Fittings: nut with M30 x 1,5 screw thread or M28x1,5, Stroke: 3,2 mm, Class: IP54. Opening time: under 5 min. Max. operation temperature: 60°C. Power supply: 230V 50Hz

STT-230/2 S THERMOELECTRIC ACTUATOR

Technical data: Fittings: - nut with M30x1,5 screw, Class: - IP50. Opening time: around 3 mins. Max. operation temperature: 60 °C. Power supply: 230V 50Hz

WIRED FLOOR HEATING SYSTEM WITH INTERNET - 7 SERIES
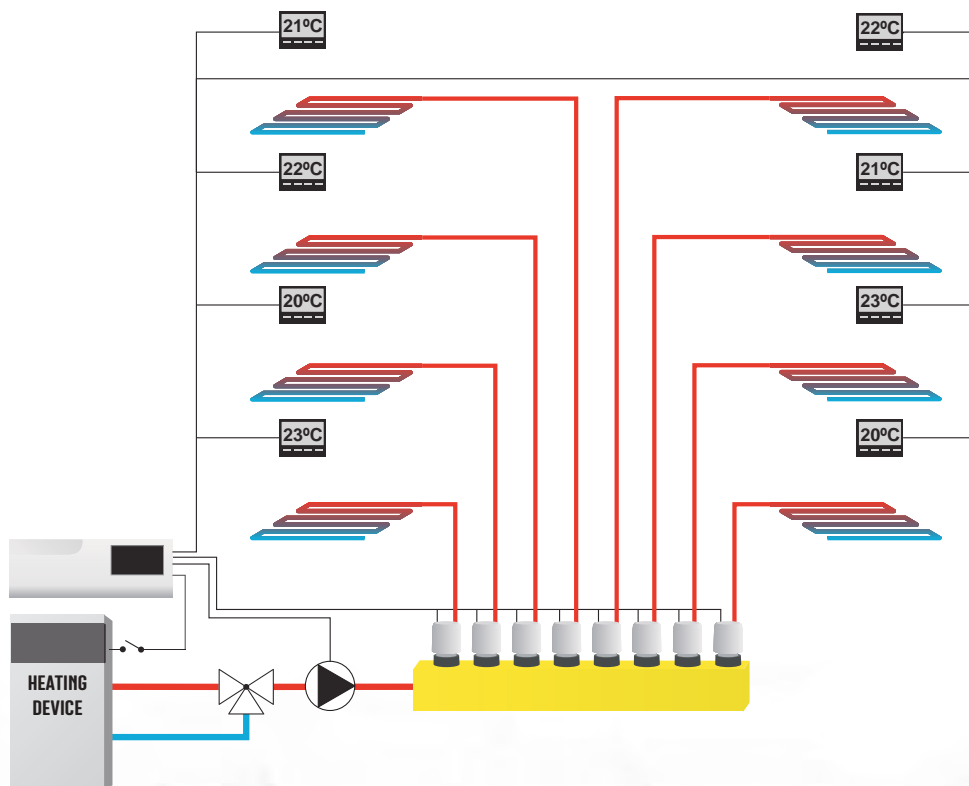
EU-L-7
Controller for thermostatic actuators

WIRED CONTROLLER FOR THERMOSTATIC ACTUATORS (8 SECTIONS)

Functions:

Possibility of controlling up to 22 thermostatic actuators via 8 room temperature sensors **EU-C-7 p:**
– 3 room temp. sensors may support 12 actuators (the max. of 4 actuators per one sensor)
– 5 room temp. sensors may support 10 actuators (the max. of 2 actuators per one sensor)

• one 230V output for pump
• voltage-free contact (e.g. for controlling the heating device)
• possibility of connecting **EU-M7** control panel with RS communication
• possibility of connecting **EU-507 Ethernet** or **WiFi RS** for controling the installation via Internet
• **possibility of connecting EU-61v4 mixing valve module or EU-431n mixing valve controller**
• software update via USB

Power	230V 50Hz
Pump output load	0,5 A
Outputs 1 - 8 load	0,3 A
Pot. free output	• / 1 A
Communication	Wired
Dimensions [mm]	335 x 105 x 75
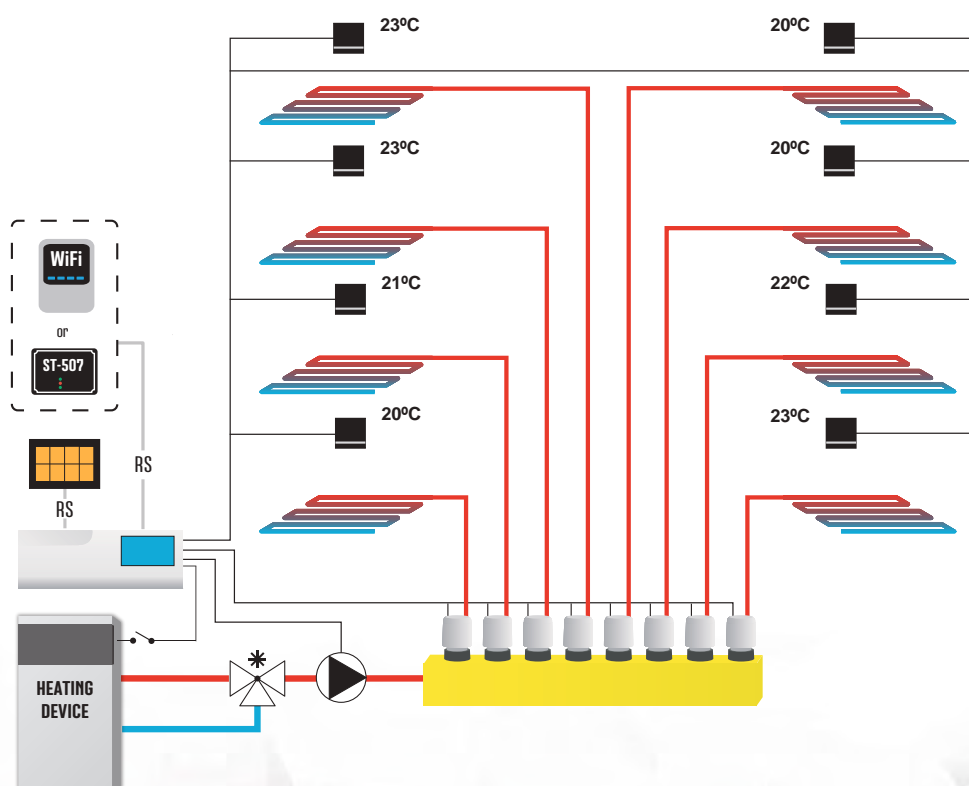
SYSTEM ELEMENTS:

Control Panel

Temperature sensor

Internet module EU-507

Internet module WIFI RS

Thermoelectric actuator STT-230/2 lub STT-230/2 S

Mixing valve controller EU-431n

WIRED FLOOR HEATING SYSTEM WITH INTERNET - 7 SERIES

Power supply 230V 50Hz

Additional mixing valve controller EU-431n

Heating device
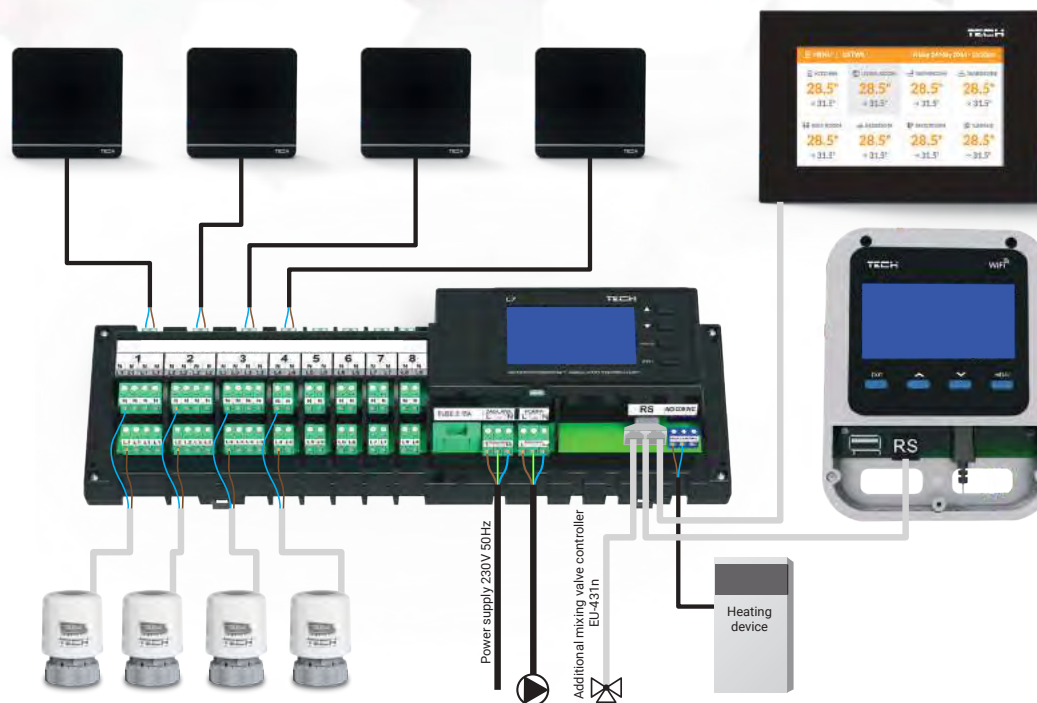
System extensions

EU-C-7 p WIRED ROOM TEMPERATURE SENSOR
Casing: Black or white

Room temperature sensor dedicated for EU-L-7 controller

Dimensions: 80 x 80 x 16 mm

EU-507 INTERNET MODULE FOR EU-L7 AND EU-L8 CONTROLLERS
Functions: remote control of the floor heating system, control of the set temperature in each zone, possibility of define the schedules, preview the temperatures history for each zone, possibility of personalization the main screen, alarms notifications via e-mail.

Wyposażenie sterownika: power supply: 5V DC, T-connector for RS, RS communication cable for main controller

Log-in: **www.emodul.eu**
Dimensions: 120 x 80 x 31 mm

WiFi RS WIFI - INTERNET MODULE
Functions: Same as in EU-505 and EU-507

Internet connection via WiFi signal
Dimensions: 105 x 135 x 28 mm

EU-M-7 WIRED CONTROL PANEL FOR EU-L-7 CONTROLLER
Casing: Black or white

Principle of operation: Controller is intended for control and preview the parameters of floor heating system.
Functions: Changing the parameters for each zone (schedule settings, set temperature), possibility of enabling/disabling particular zone, time/date settings, brightness settings, screensaver, alarm clock, scrren lock, easy to montage in electrical box (ø60mm). Power supply: 230V 50Hz.
Dimensions: 127 x 90 x 20 mm

EU-431N MIXING VALVE CONTROLLER
Functions: control of the three- or four-way mixing valve, valve pump control, the possibility of controlling two valves by means of additional EU-61v4 or EU-431n modules, return water temperature protection, weather-based regulation, week-based regulation, the possibility of connecting room regulator with RS or traditional communication, the possibility of connecting EU-65 GSM and EU-505 Ethernet modules, possibility of connecting EU-505 Ethernet module **Equipment:** LCD display, mixing valve temperature sensor, return water temperature sensor, external sensor.
Dimensions: 110 x 163 x 57 mm

STT-230/2 THERMOELECTRIC ACTUATOR
M30x1,5 - M28x1,5

Technical data: Fittings: nut with M30 x 1,5 screw thread or M28x1,5, Stroke: 3,2 mm, Class: IP54. Opening time: under 5 min. Max. operation temperature: 60°C. Power supply: 230V 50Hz

STT-230/2 S THERMOELECTRIC ACTUATOR
Technical data: Fittings: - nut with M30x1,5 screw, Class: - IP50. Opening time: around 3 mins. Max. operation temperature: 60 °C. Power supply: 230V 50Hz

WIRELESS FLOOR HEATING SYSTEM WITH INTERNET - 8 SERIES

EU-L-8
### Controller for thermostatic actuators

WIRELESS CONTROLLER FOR THERMOSTATIC ACTUATORS (8 SECTIONS)

Functions:

Possibility of controlling up to 22 thermostatic actuators via 8 room temperature sensors **EU-C-8 r** or room regulators **EU-R-8 b** and **EU-R-8 z** or **EU-R-8 k**

- 3 room temp. sensors/room regulators may support 12 actuators (the max. of 4 actuators per one sensor/regulator)
- 5 room temp. sensors/room regulators may support 10 actuators (the max. of 2 actuators per one sensor/regulator)
• one 230V output for pump
• voltage-free contact (e.g. for controlling the heating device)
• possibility of connecting EU-M7 control panel with RS communication
• possibility of connecting EU-507 Ethernet or EU-5060 RS for controling the installation via Internet
• **possibility of connecting EU-61v4 mixing valve module or EU-431n mixing valve controller**
• software update via USB

Power	230V 50Hz
Pump output load	0,5 A
Outputs 1 - 8 load	0,3 A
Pot. free output	• / 1 A
Communication Operating frequency	Wireless 868 MHz
Dimensions [mm]	335 x 105 x 75
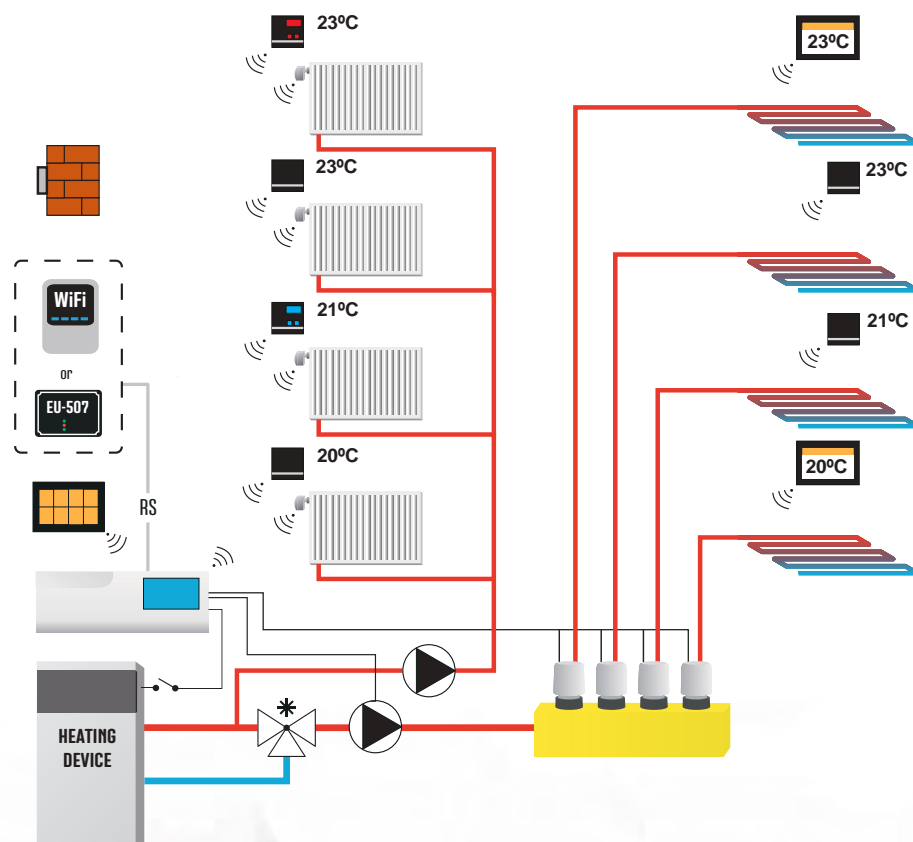
SYSTEM ELEMENTS:

	Control Panel
20ºC	Room regulator (colour, touchscreen)
	LED Room regulator
	LCD Room regulator
	Temperature sensor
	Outside temperature sensor
EU-507	Internet module EU-507
WiFi	Internet module WIFI RS
	Wireless actuator STT-868
	Thermoelectric actuator STT-230/2 or STT-230/2 S
*	Mixing valve controller ST-431n

WIRELESS FLOOR HEATING SYSTEM WITH INTERNET - 8 SERIES

Power supply 230V 50Hz

Additional mixing valve controller EU-431n

Heating device

System extensions

EU-C-8 r WIRELESS ROOM TEMPERATURE SENSOR
Casing: Black or white
Sensor dedicated for EU-L-8 controller, power: 2xAAA batteries
Dimensions: 80 x 80 x 16 mm

EU-C-8 zr WIRELESS OUTSIDE TEMPERATURE SENSOR
Sensor dedicated for EU-L-8 controller, power: 2xAAA batteries

EU-R-8 b WIRELESS TWO-STATE ROOM REGULATOR FOR EU-L-8
Casing: Black or white
Functions: room temperature control, heating program with time limit
Equipment: bulit-in room temperature sensor, LCD display, 2xAAA Batteries, no backlit **Dimensions:** 80 x 80 x 16 mm

EU-R-8 z WIRELESS TWO-STATE ROOM REGULATOR FOR EU-L-8
Casing: Black or white
Functions: room temperature control, heating program with time limit
Equipment: bulit-in room temperature sensor, LED display, power supply: 230V 50Hz **Dimensions:** 80 x 80 x 16 mm

EU-507 INTERNET MODULE FOR EU-L7 AND EU-L8 CONTROLLERS
Functions: remote control of the floor heating system, control of the set temperature in each zone, possibility of define the schedules, preview the temperatures history for each zone, possibility of personalization the main screen, alarms notifications via e-mail.
Wyposażenie sterownika: power supply: 5V DC, T-connector for RS, RS communication cable for main controller
Log-in: **www.emodul.eu**
Dimensions: 120 x 80 x 31 mm

WiFi RS WIFI - INTERNET MODULE
Functions: Same as in EU-505 and EU-507
Internet connection via WiFi signal
Dimensions: 105 x 135 x 28 mm

EU-R-8 k WIRELESS ROOM REGULATOR (FLUSH-MOUNTABLE)
Casing: Black or white
Principle of operation: Regulator is responsible for control the operation and preview parameters in registered zone
Functions: Regulator registration, zone parameters change (schedule, set temperature, hysteresis, calibration), possibility of enabling/disabling zone, time/date settings, brightness settings, screensaver, alarm clock, screen lock, language selection. Easy to montage in electrical box (ø60mm). Power supply: 230V 50Hz. **Dimensions:** 127 x 90 x 20 mm

EU-M-8 WIRELESS CONTROL PANEL (FLUSH-MOUNTABLE)
Casing: Black or white
Principle of operation: Controller is intended for control and preview the parameters of floor heating system.
Functions: Changing the parameters for each zone (schedule settings, set temperature), possibility of enabling/disabling particular zone, time/date settings, brightness settings, screensaver, alarm clock, scrren lock, easy to montage in electrical box (ø60mm). Power supply: 230V 50Hz.
Dimensions: 127 x 90 x 20 mm

STT-868 WIRELESS THERMOELECTIC ACTUATOR
Technical data: Output – nut with M30x1,5 thread; Communication – wireless, frequency 868MHz; power supply: 2xAA 1,5V batteries **Dimensions:** 47 x 83 x 80 mm

STT-230/2 THERMOELECTRIC ACTUATOR
M30x1,5 - M28x1,5
Technical data: Fittings: nut with M30 x 1,5 screw thread or M28x1,5, Stroke: 3,2 mm, Class: IP54. Opening time: under 5 min. Max. operation temperature: 60°C. Power supply: 230V 50Hz

STT-230/2 S THERMOELECTRIC ACTUATOR
Technical data: Fittings: - nut with M30x1,5 screw, Class: - IP50. Opening time: around 3 mins. Max. operation temperature: 60 °C. Power supply: 230V 50Hz

EU-431N MIXING VALVE CONTROLLER
Functions: control of the three- or four-way mixing valve, valve pump control, the possibility of controlling two valves by means of additional EU-61v4 or EU-431n modules, return water temperature protection, weather-based regulation, week-based regulation, the possibility of connecting room regulator with RS or traditional communication, the possibility of connecting EU-65 GSM and EU-505 Ethernet modules **Equipment:** LCD display, mixing valve temperature sensor, return water temperature sensor, external sensor. **Dimensions:** 110 x 163 x 57 mm

TECH

HEATING CONTROL IN A GUESTHOUSE OR HOTEL

Reception Desk

The user can view and search:
- zones classified by their attributes:

floor, suite (current, set temperatures, and statuses) changes in assigned daily control (status)

Daily Control

A room (zone) may be set to one of four states: occupied, free, security, or „manual operation". For each of these states, the administrator may set temperatures for each hour of the day

Zones and Sensors

-Assigning sensors to zones

-The zones identified in a hotel are edited based on which type of room is chosen and entering its attributes (TAGs - floor, room number) as needed for future searches for a specific zone or zone group

- List of available sensors (physical part) with a search engine and filter

This system is intended to control heating in guesthouses or hotel buildings. Applying this solution enables the personnel control at all times over the current temperatures in the rooms and to change them manually or by selecting one of the preset programs: occupied, vacant, or security.

The whole system is managed through the administration panel where information about alarms and changes in given zones is also displayed.

The user can be notified as to alert states in the form of an e-mail and text message (optionally)

HEATING CONTROL SYSTEM FOR A **GUESTHOUSE OR HOTEL**

Adjust to your own needs

SERVER

ADMINISTRATION PANEL

FLOOR 1

APARTMENT 101

Zone - Type: **Bathroom**
Sensor: **L1 - CZ2**
Status: (daily):
Occupied

Zone - Type: **Living room**
Sensor: **L1 - CZ3**
Status (daily):
Occupied

Zone - Type: **Bedroom**
Sensor: **L1 - CZ1**
Status (daily):
Occupied

APARTMENT 102

Zone - Type: **Bathroom**
Sensor: **L1 - CZ2**
Status: (daily):
Occupied

Zone - Type: **Living room**
Sensor: **L1 - CZ3**
Status (daily):
Occupied

Zone - Type: **Bedroom**
Sensor: **L1 - CZ1**
Status (daily):
Occupied

Advantages:

- Available search mode - filtering by attributes

- Possibility to change the status of high-end suites: **FREE /OCCUPIED /SECURITY /MANUAL OPERATION**

- Possible automatic change of the parameters for day zones

- Bookings on the basis of date /hour calendar (additional option)

- Alert panel (no communication with the strip, sensor errors, extremely high/low temperatures)

- A panel with information about "what happened" recently in the system (automatic and manual changes in day settings, alarms)

EU-392 zPID
Fireplace controller

Functions
- control of the circulation pump
- control of the additional pump, DHW pump or floor pump
- control of the throttle
- a contactor switching the gas boiler on and of, depending on the desired circuit water temperature minus hysteresis
- the possibility of connecting EU-65 GSM module
- the possibility of connecting EU-505 ETHERNET module
- **zPID** software

Controller equipment
- colour touchscreen
- CH temperature sensor T1, DHW T2, flue gas T3, buffer T9
- throttle (avaliable diameters: 100, 120, 150mm)

Principle of operation
Temperature regulator with a throttle is intended for controlling the combustion process in a household heating fireplace.This regulator controls operation of the circulation pump, the additional pump (DHW or floor pump), of the throttle and the voltage-free output (control of an additional device).
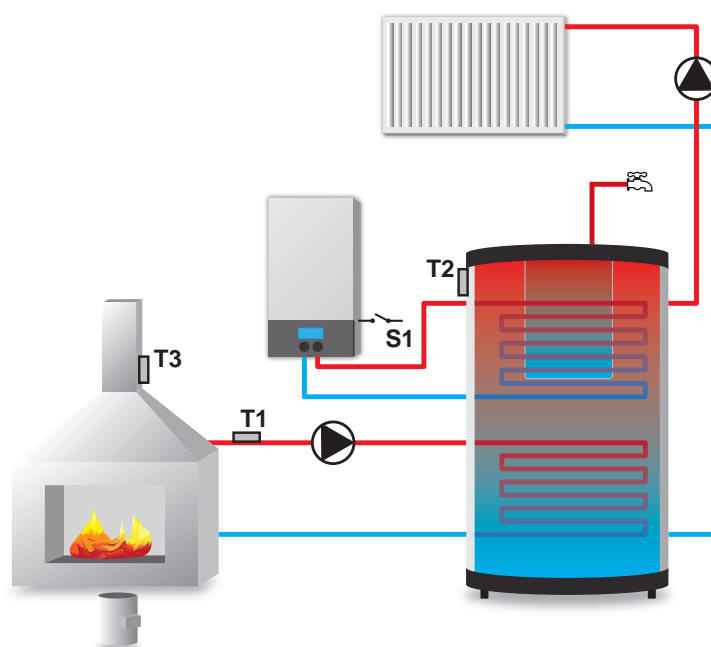
EU-391 zPID
Fireplace controller

Functions
• control of the circulation pump
• control of the additional pump, DHW pump or floor pump
• control of the buffer pump or laddomat
• control of the throttle - a contactor switching the gas
  boiler on and of, depending on the desired circuit water
  temperature minus hysteresis
• **zPID** software
• buffer supervision (two sensors)
• the possibility of connecting EU-65 GSM module
• the possibility of connecting EU-505 ETHERNET module

Controller equipment
• LCD display
• CH temperature sensor T1, DHW T2, flue gas T3, (2x) buffer T9
• throttle 100mm (avaliable also diameters: 120mm and 150mm)
• colour screen with touch buttons

Principle of operation
Temperature regulator with a throttle is intended for controlling the combustion process in a household
heating fireplace.This regulator controls operation of the circulation pump, the additional pump (DHW or floor
pump), of the throttle and the voltage-free output (control of an additional device).

Sensors

Semiconductor temperature sensor of KTY type
(plastified PVC cable insulation)
Resistance at 25°C: 2kΩ
Coefficient: 0.79 %/K
Accuracy : 1%
Range of operation: -25÷90°C

Bimetallic sensor (thermal overload relay)
Activation temperature 85°C
Accuracy : +/-3°C
Application: temperature protection

Flue gas temperature sensor of PT1000 type
(cable insulation made of glass fiber)
Resistance at 0°C: 1kΩ
Accuracy : +/-0.3°C
Range of operation: -25÷480°C

Semiconducting temperature sensor of PT1000 type
(silicone cable insulation)
Resistance at 0°C: 1kΩ
Accuracy : +/-0.3°C
Range of operation: -25÷180°C

Photocell – fire sensor
Application: pellet-fired boilers

Hall generator (Hall's sensor)
Application: boilers with piston feeder

Safety thermostat – (STB)
Activation temperature: 90÷110°C
Accuracy : +/-3÷5°C
Maximum current: 16A
Application: temperature protection

P type quick release coupling
Application: for installation of sensors on a strip

COOPERATION TABLE - INSTALLATION CONTROLLERS

	EU-262	EU-260	EU-2807	EU-2906	EU-8S	WiFi PK	WiFi 8s	EU-480	EU-48	EU-37n RS	EU-880 zPID	EU-81	EU-28 SIGMA	EU-28	EU-460	EU-402	EU-401	EU-392 zPID	EU-390 zPID	EU-409n	EU-408n	EU-407n	EU-43n	EU-430	EU-427i	EXTENSION MODEL
EU-290 v2								•	•	•	•	•	•	•						•	•	•	•	•	•	
EU-290 v3								•	•	•	•	•	•	•						•	•	•	•	•	•	
EU-292 v2								•	•	•	•	•	•	•						•	•	•	•	•	•	
EU-292 v3								•	•	•	•	•	•	•						•	•	•	•	•	•	
EU-294 v1								•	•	•	•	•	•	•						•	•	•	•	•	•	
EU-294 v2								•	•	•	•	•	•	•						•	•	•	•	•	•	
EU-296	•							•	•	•	•									•	•	•	•			
EU-280	•							•	•	•	•									•	•	•	•			
EU-281	•							•	•	•	•									•	•	•	•			
EU-282	•							•	•	•	•	•	•	•						•	•	•	•	•	•	
EU-283	•							•	•	•	•	•	•	•						•	•	•	•	•	•	
EU-65 GSM								•	•	•	•				•	•	•	•	•	•	•	•	•			
EU-505 Eth								•	•	•	•				•	•	•	•	•	•	•	•	•			
EU-61v4								•	•	•	•									•	•	•	•			
C-7 p					•	•																				
C-8 r				•		•																				
STZ-120, A						•					•									•	•	•	•	•	•	
STT-868		•	•	•		•																				

COOPERATION TABLE - FLOOR HEATING CONTROLLERS

		C-8r	R-3	C-8r	EU-290 v3	EU-292 v3	EU-294 v1	R-6 (EU-290v4)	R-6 g (EU-292v4)	R-6 p (EU-294v4)	(EU-290/2)	R-8b	R-8 z	R-8k	M-6	M-7	M-8	EU-507	WiFi R8	STT-230/2	STT-210/23	STT-868	EU-43n
CONTROLLER MODEL	L-5				•	•	•														•	•	
	L-6	•						•	•	•				•								•	•	
	L-7	•													•		•	•	•	•			•	
	L-8			•				•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	