



## 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

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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.

# RADIATOR HEATING CONTROL

Wireless control of STT-868 thermoelectric actuators. Controllers for STT-868 wireless thermoelectric actuators (max. 6 pcs per zone). Regulators are intended to keep constant 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.

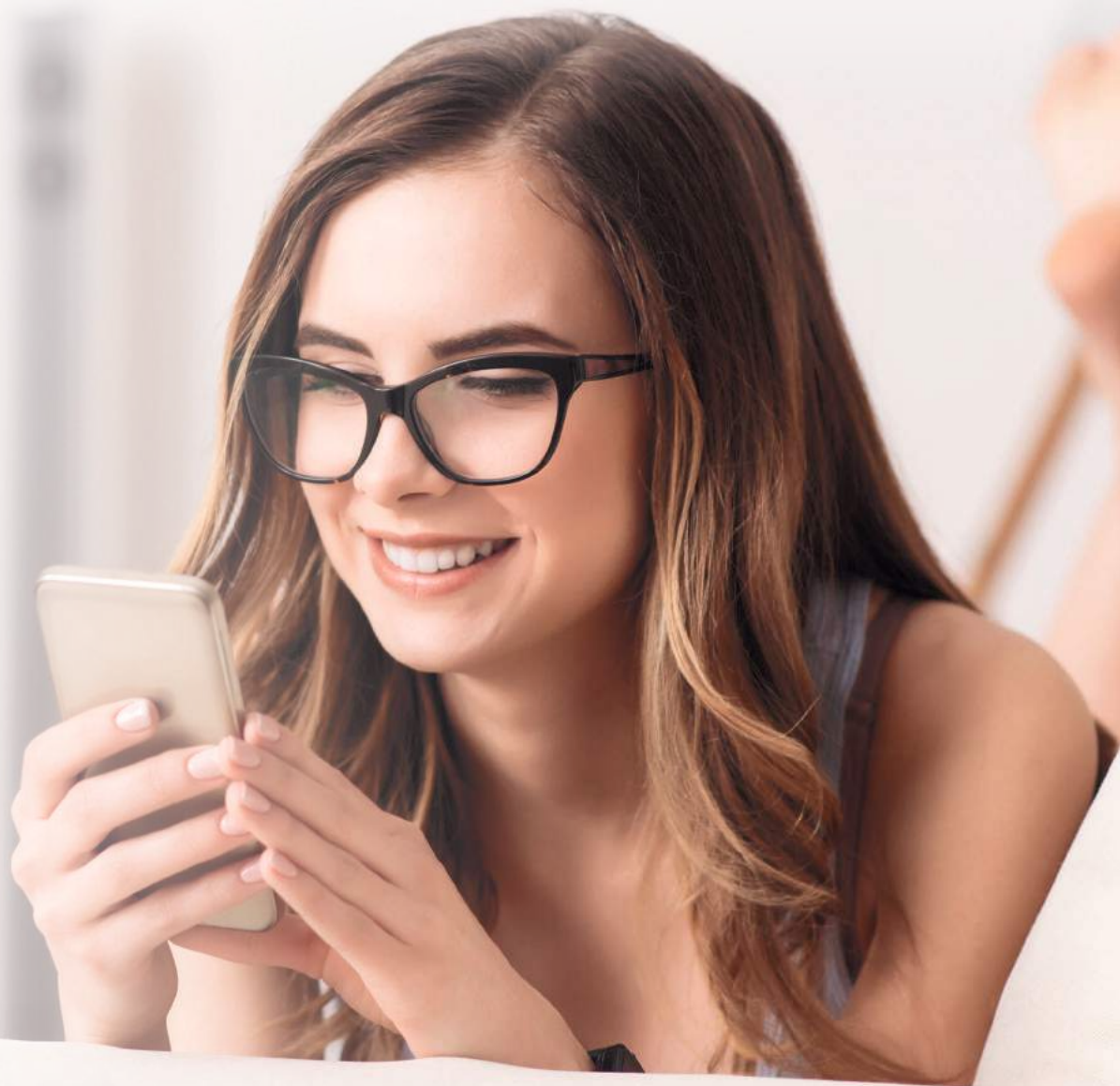
## WiFi-8S

## EU-8S



# 8 HEATING ZONES

SUPERVISION BY WEB APP.EMODUL.EU



# WiFi-8S

WiFi controller for wireless  
thermoelectric actuators STT-868



Power	5V DC
Communication	Wireless 868 MHz
Voltage-free contact load	1A / 230 V / AC
Temp. measurement accuracy	+/- 0,5 °C
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**

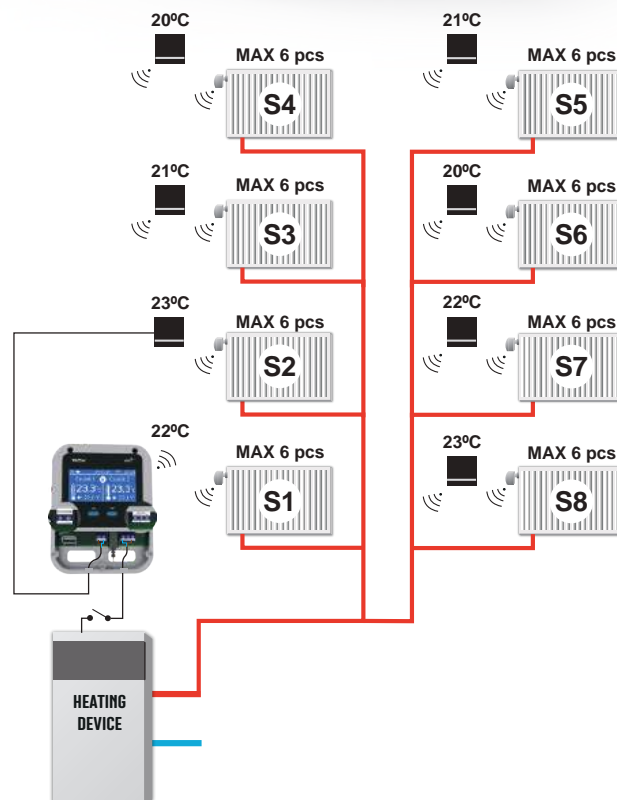
## Equipment:

- 5V Power supply unit
- an additional **EU-C-7 p** wired temperature sensor



Supervision by web app.

[www.emodul.eu](http://www.emodul.eu)



**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



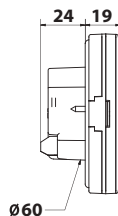
Power	230V 50Hz
Communication Frequency	Wireless 868 MHz
Temp. measurement accuracy	+/- 0,5 °C
Dimensions [mm]	127 x 90 x 20

## Functions

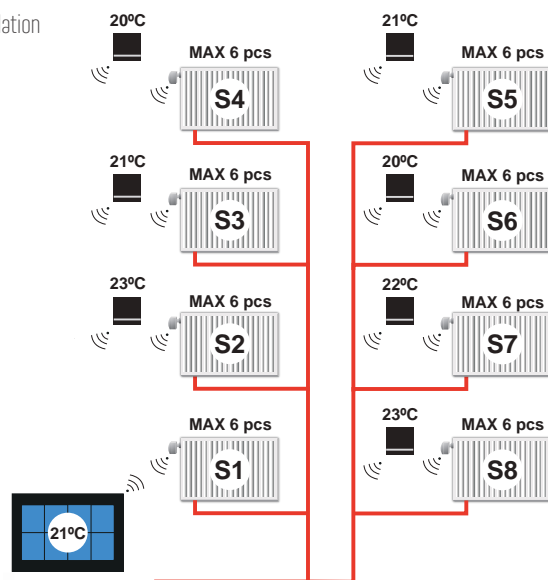
- Controlling a max of 8 different zones by means of:
  - embedded temperature sensor
  - possible connection of additional 7 pcs. **EU-C-8** wireless sensors or room regulators **EU-R-8 b** or **EU-R-8 z**
- For each zone, it is possible to connect up to 6 pc. wireless **STT-868** thermoelectrical actuators
- 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



available in black or white casing



## 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..

**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 °C
Dimensions [mm]	127 x 90 x 20

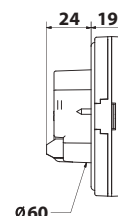


## Functions

- 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

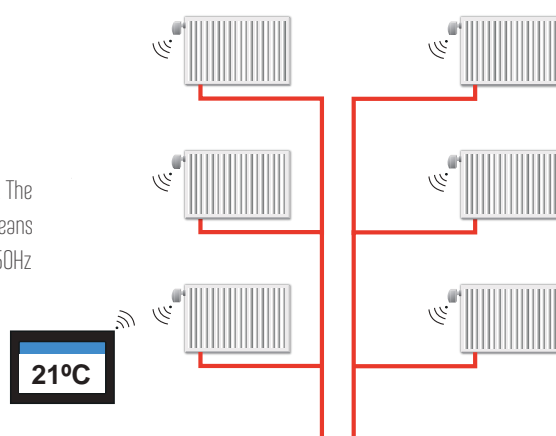
- front panel made of 2mm glass
- wireless communication
- large, clear, color touch screen
- built-in temperature sensor
- flush-mountable



## 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-2906

A set for controlling wireless thermostatic actuators



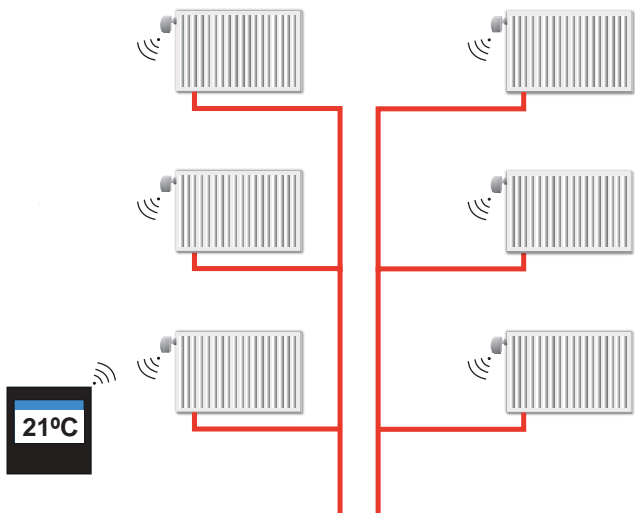
Power	230V 50Hz
Communication Frequency	Wireless 868 MHz
Temp. measurement accuracy	+/- 0,5 °C
Dimensions [mm]	104 x 88 x 18

### 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





## 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

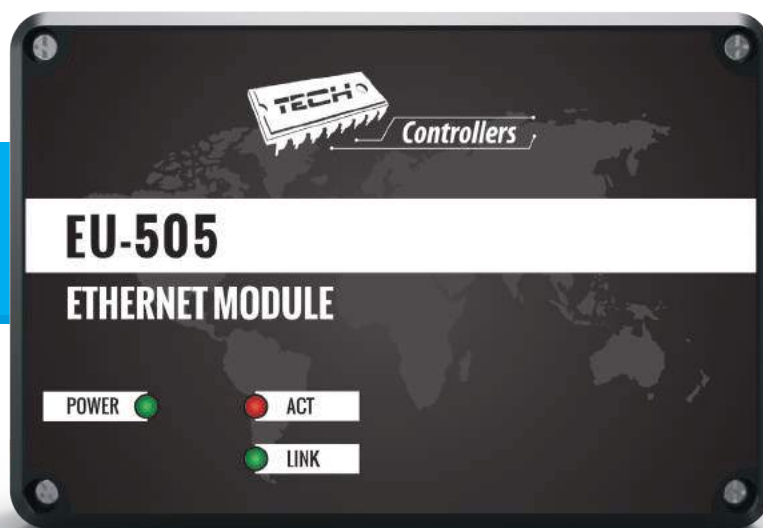
### WiFi PK - INTERNET TEMPERATURE REGULATOR

NO/NC heating device control / WiFi connection



# EU-505 Ethernet

Specialized controller  
/ additional module



## 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 communication

Cooperates with older controller versions

# WiFi RS

Specialized controller / additional module



### 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
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- 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

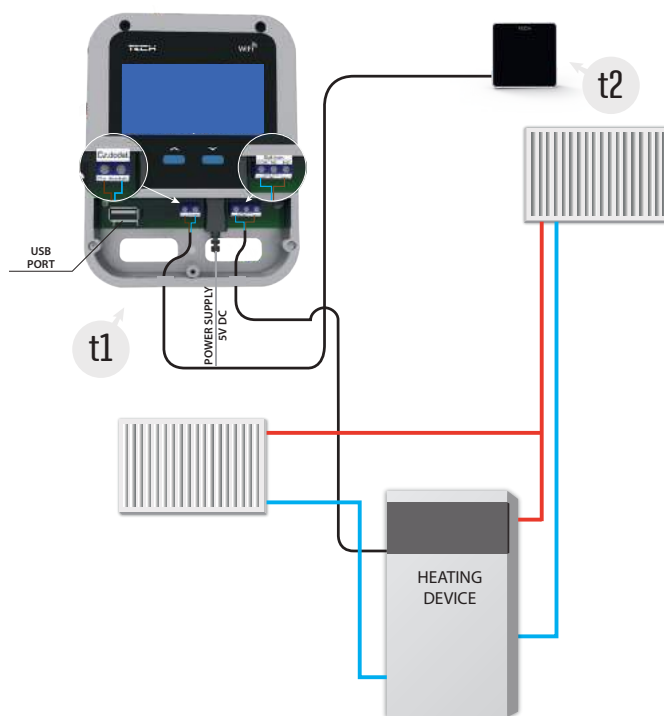
- **NO/NC** relay output (e.g. for controlling the heating device which is activated when the room temperature is too low)
- bulid-in room sensor
- one wired sensor **C-7 p (EU)**
- possibility of selection the sensor to operation module (bulid-in, external or both)

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

### Equipment

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

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# STT-868

Wireless electric actuator



### 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

# STZ-120

Siłownik zaworu mieszającego



### Mixing valve actuator

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

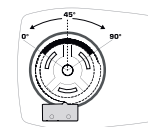
it comes with 1,5m cable rotation time 120 s.

\* 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		

# 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)



## WIRED FLOOR HEATING SYSTEM - 5 SERIES

### EU-L-5

Controller for  
thermostatic actuators



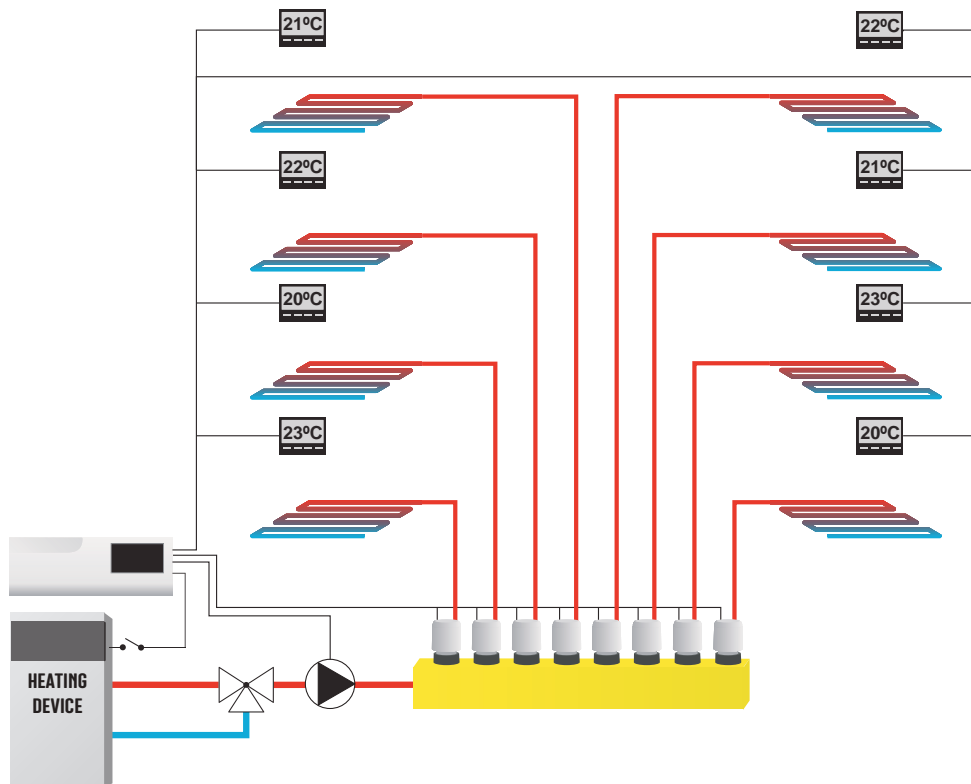
### WIRED CONTROLLER FOR THERMOSTATIC ACTUATORS (8 SECTIONS)

#### 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:



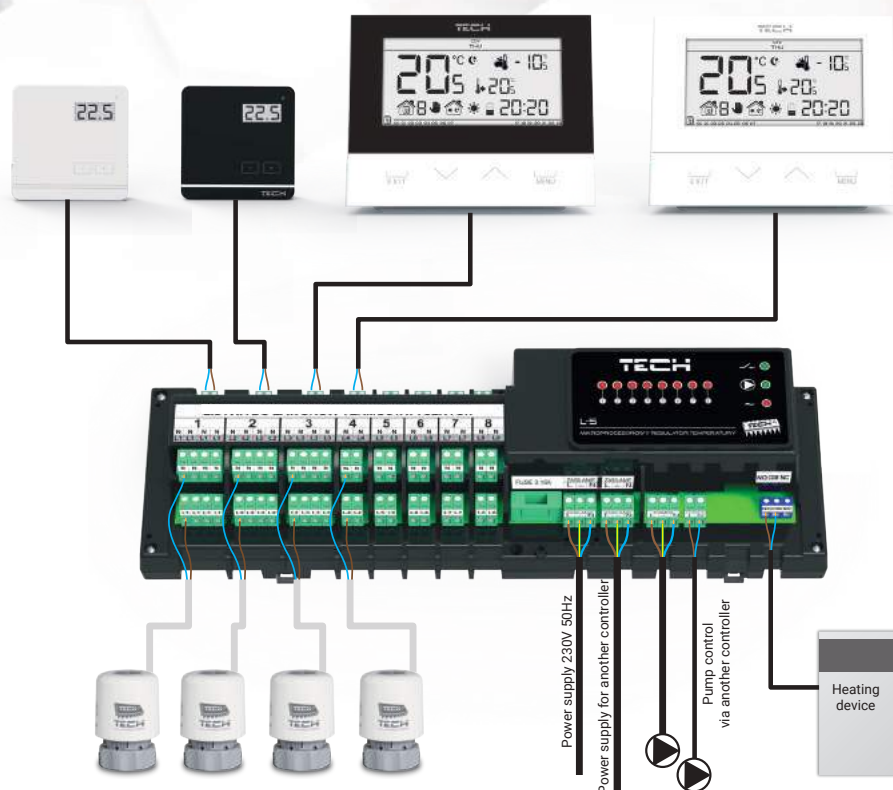
Wired two-state room  
regulator



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



## WIRED FLOOR HEATING SYSTEM - 5 SERIES



### 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:** built-in room temperature sensor, LCD display, 2xAAA Batteries, no display backlight

**Dimensions:** 80 x 80 x 20 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 backlight, 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:** built-in room temperature sensor, front panel made of 3mm glass

**Dimensions:** 121 x 95 x 24 mm



#### EU-290 v3 WIRED TWO-STATE ROOM REGULATOR

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

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

**Dimensions:** 134 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

# WIRELESS FLOOR HEATING SYSTEM - 6 SERIES

## 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:

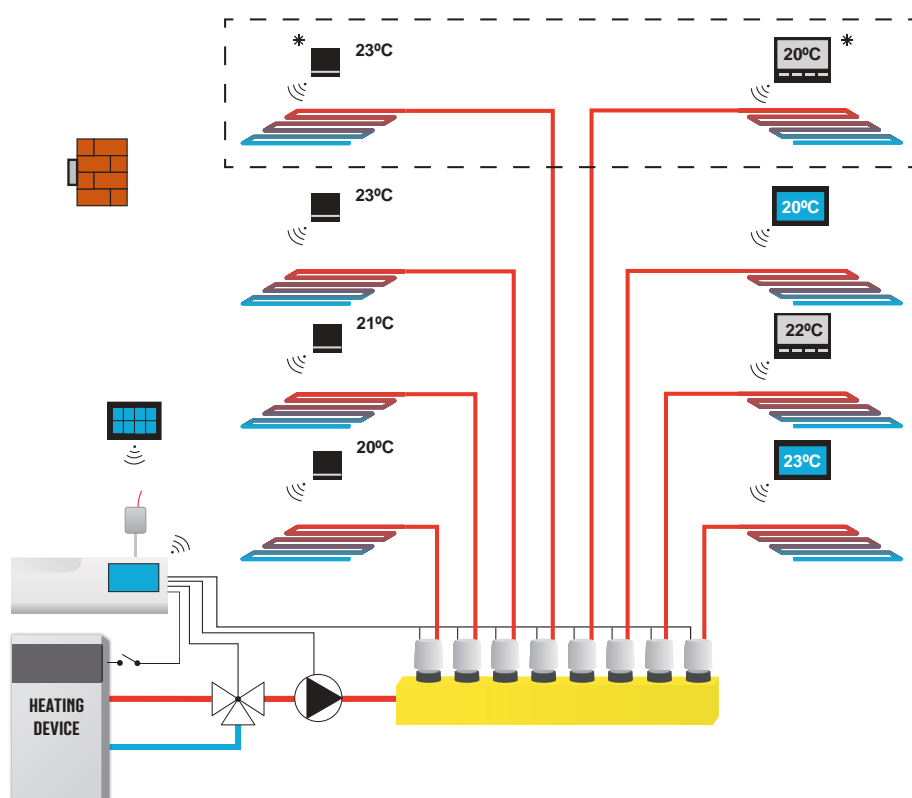
**EU-C-6r, EU-R-6, EU-R-6 s or EU-R-6 k** + mixing valve or 8 room regulators or room sensors: **EU-C-6r, EU-R-6, EU-R-6 s or EU-R-6 k**

- 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

# WIRELESS FLOOR HEATING SYSTEM - 6 SERIES



## 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 WIRELESS ROOM REGULATOR (TWO-STATE)

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

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

**Dimensions:** 134 x 95 x 24 mm



### EU-R-6 k WIRELESS ROOM REGULATOR (FLUSH-MOUNTABLE)

**Casing:** Black or white

Room regulator EU-R-6k is intended for controlling thermoelectric actuators using the EU-L-6 controller. 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-M-6 WIRELESS CONTROL PANEL (FLUSH-MOUNTABLE)

**Casing:** Black or white

Control panel EU-M-6 is intended for controlling 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



### 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 backlight, 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), built-in room temperature sensor, stand for controller, 2XAA 1,5V batteries, 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

# WIRED FLOOR HEATING SYSTEM WITH INTERNET - 7 SERIES

## EU-L-7

Controller for  
thermostatic actuators



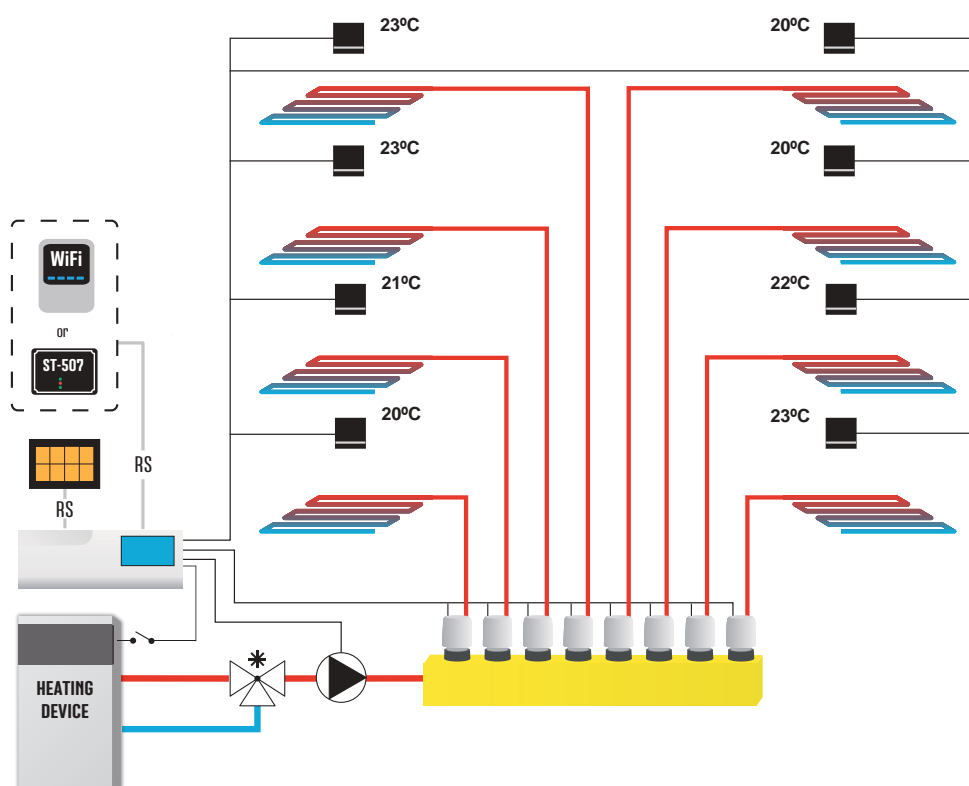
### WIRED CONTROLLER FOR THERMOSTATIC ACTUATORS (8 SECTIONS)

#### 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 controlling 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



## 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-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, screen lock, easy to montage in electrical box (ø60mm). Power supply: 230V 50Hz.

**Dimensions:** 127 x 90 x 20 mm



### EU-507 INTERNET MODULE FOR EU-L-7 AND EU-L-8 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](http://www.emodul.eu)

**Dimensions:** 120 x 80 x 31 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



### 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



### 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: IP50. 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



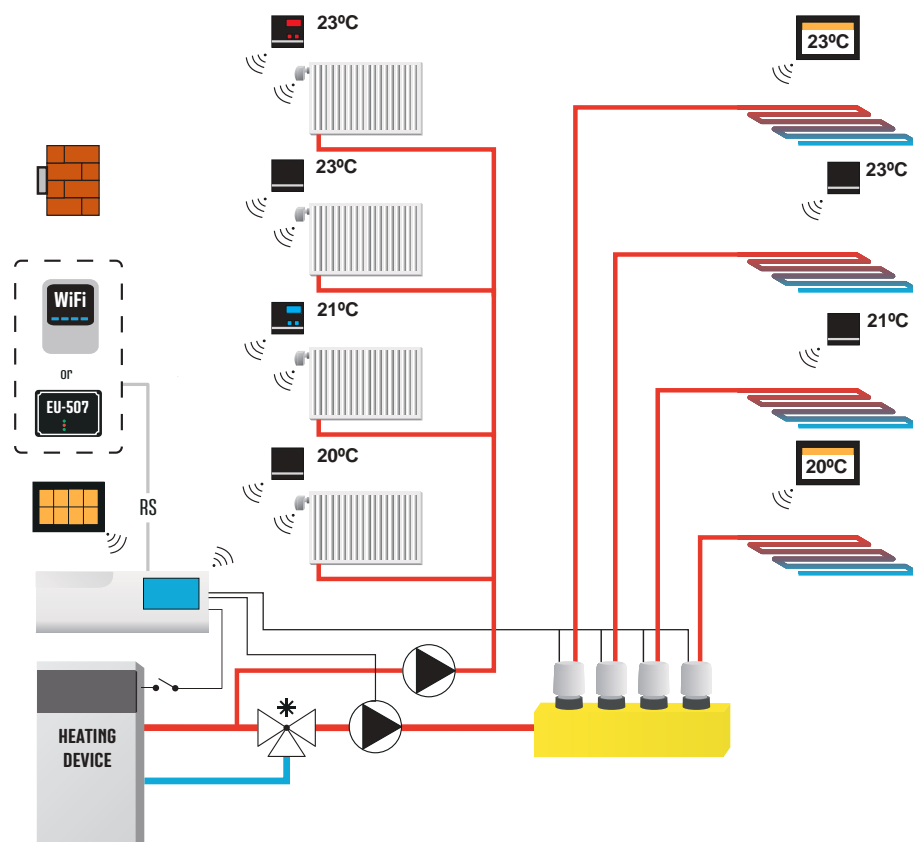
### WIRELESS CONTROLLER FOR THERMOSTATIC ACTUATORS (8 SECTIONS)

#### 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 controlling 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
- Room regulator (colour, touchscreen)
- LED Room regulator
- LCD Room regulator
- Temperature sensor
- Outside temperature sensor
- Internet module EU-507
- 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



## 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:** built-in room temperature sensor, LCD display, 2xAAA Batteries, no backlight **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:** built-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](http://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, screen lock, easy to montage in electrical box (ø60mm). Power supply: 230V 50Hz.

**Dimensions:** 127 x 90 x 20 mm



### STT-868 WIRELESS THERMOELECTRIC 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

# 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



SERVER



ADMINISTRATION  
PANEL

## FLOOR 1



### 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)

# 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

CONTROLLER MODEL		EXTENSION MODEL																								
EU-282	EU-280	EU-2807	EU-2806	EU-85	WiFi PK	WiFi 8s	EU-1480	EU-148	EU-374 RS	EU-980 2P10	EU-91	EU-28 816MA	EU-28	EU-1480	EU-1402	EU-1401	EU-392 2P10	EU-390 2P10	EU-405n	EU-408n	EU-407n	EU-423n	EU-430	EU-427i		
																										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-85 GSM
																										EU-505 Eth
																										EU-61v4
																										C-7 p
																										C-8 r
																										STZ-120, A
																										STT-868

### COOPERATION TABLE - FLOOR HEATING CONTROLLERS

CONTROLLER MODEL	EXTENSION MODEL																							
	C-8p	C-7p	C-8r	EU-280 v3	EU-282 v3	EU-294 v1	R-8 (EU-280v4)	R-8 g (EU-282v4)	R-8 v (EU-280B)	R-8b	R-8 z	R-8k	M-6	M-7	M-8	EU-507	WiFi 8S	STZ-280/2	STT-200/2S	STT-868	EU-423n			
L-5																								
L-6																								
L-7																								
L-8																								