

TECH
CONTROLLERS



ZONE HEATING CONTROLLERS



Our company manufactures microprocessor devices for consumer electronics. We are the largest Polish manufacturer of controllers for CH boilers fired with solid fuels. We have been trusted by the leading CH boiler companies in Poland and abroad. Our devices are characterized by the highest quality and reliability, confirmed by many years of experience.

We specialize in designing and production of controllers for CH boilers fired with coal, fine coal, pellet, wood and biomass (oats, corn, dried seeds). Apart from that, we also manufacture regulators for refrigeration industry, solar systems, sewage treatment plants, mushroom farms, three- and four-way valves as well as room regulators and scoreboards for sports playfields.

We have already sold hundreds of thousands of various controllers and we are successfully expanding our offer, with the customer satisfaction being our top priority. The quality management system ISO 9001 and a number of certificates confirm the highest quality of our products.

The history of our company are, first of all, the people who create it, their knowledge, experience, involvement and persistence. Our plans for the future include maintaining good relations with our customers, acquiring new customers and developing new, high-quality products.

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TECH CONTROLLERS

Sinum



Your home in tune with you.



Heating



Lighting



Safety
and quality



Control
of roller shutters
and awnings

tech-controllers.com



Garage

17.0°C



Living room

21.0°C



Kitchen

20.0°C



Bathroom

23.0°C



Bedroom

19.0°C



Outdoor temp.

14.0°C

APP FOR REMOTE OPERATION CONTROL

eModul



VIEW AND EDITING PARAMETERS
IN EACH ZONE

TEMPERATURE
HISTORY

HEATING
SCHEDULE

OPEN WINDOW
INFORMATION

VIEW THE
ALARM LOG

FREE TO
USE

VOICE
ASSISTANT



8S

EU-WiFi 8S / EU-WiFi 8S p

Up to 8 zones

Built in WiFi module

Voltage-free relay



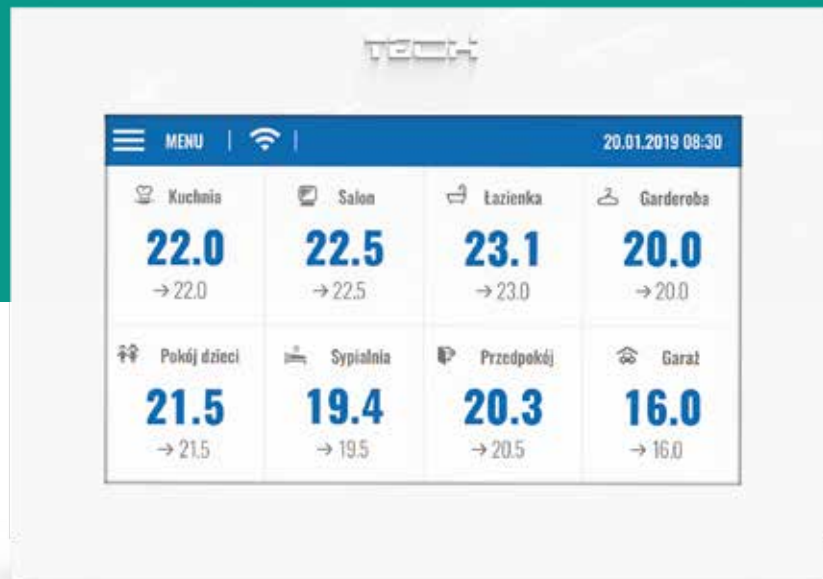
WiFi 8S p	power / communications	230V 50Hz	wireless 868 MHz
	dimensions [mm] / colour	84 x 84 x 16	white
WiFi 8S	power / communications	5V / 230V 50Hz	wireless 868 MHz
	dimensions [mm] / colour	105 x 135 x 28	white

16S

EU-16S WiFi

Up to 16 zones

Built in WiFi module



AVAILABLE COLOURS



power / communications

230V 50Hz

wireless 868 MHz

dimensions [mm] / colour

127 x 90 x 20

white / black

Functions:

- controlling up to **8 (EU-WIFI 8S/8S p) or 16 (EU-WiFi 16S) different zones** with the use of
 - wired temperature sensor **EU-C-7 p (in set with EU-WiFi 16S)**
 - wireless temperature sensor **EU-C-mini (in set with EU-WiFi 8S mini)**
 - possibility of connecting up to **8 (EU-WiFi 8S) or 16 (EU-WiFi 16S) wireless sensors EU-C-mini, EU-CL-mini, EU-C-8r or room regulators EU-R-8b, EU-R-8z, EU-R-8b PLUS,**
- **NO/NC relay output** (e.g. for controlling the heating device which is activated when the room temperature is too low)
- possibility of connecting up to **6 wireless electric actuators STT-868/STT-869 in each zone**
- **possibility of connecting up to 6 modules EU-MW-1 / EU-MW-1 230**
- possibility of installing up to **6 wireless window opening sensors EU-C-2n**
- possibility of updating the software via USB port
- each zone may be assigned an individual operation mode (constant temperature, time limit or 6 operation schedules)
- compatible with wireless external sensor **EU-C-8 zr**

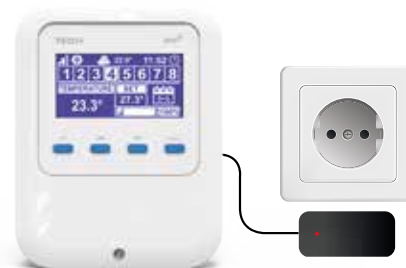
Equipment:

- **power supply 5V**
- additional wired temperature sensor **EU-C-7 p (EU-WiFi 8S)**
- additional wireless temperature sensor **EU-C-mini (EU-WiFi 8S p)**



Power adapter in set

EU-WIFI 8S p



Power adapter in set

EU-WIFI 8S



Flush mountable

EU 16S WIFI



EU-C-2n

WIRELESS WINDOW OPENING SENSOR

- window opening signal,
- heating control,
- compact dimensions,
- discreet design,
- long-life battery ER14250 S

**OPEN WINDOW
HEATING OFF**

AVAILABLE COLOURS



Modern design

Fast transmission

Power supply 2x AA

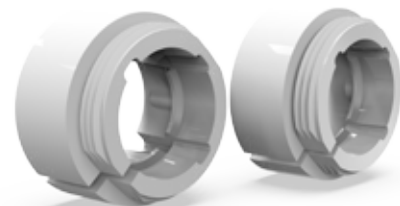


NEW

WIRELES ELECTRIC ACTUATOR

Function:

- open/close radiator valve
- minimum and maximum range settings
- proportional valve opening control
- hidden pairing button
- wireless communication.
- RAN and RTDN adapters in set



RAN and RTDN adapters in set

power / communications	battery 2xAA 1,5V	wireless 868 MHz
dimensions [mm] / fastening	82 x 83 x 49	M30 x 1,5 mm

Silent transmission

Power supply 2x AA

M30 x 1,5 mm



WIRELES ELECTRIC ACTUATOR

Function:

- wireless communication,
- open/close radiator valve
- new, silent transmission,
- pairing button on the outside of the casing,
- possibility of using an adapters for other types of valves
- RAN and RTDN adapters in set

power / communications	battery 2xAA 1,5V	wireless 868 MHz
dimensions [mm] / fastening	80 x 70 x 46	M30 x 1,5 mm



EU-CL-mini

WIRELESS ROOM TEMPERATURE SENSOR
IN HERMETIC CASING IP64



- air temperature measurement,
- meets the IP64 standard,
- compact in size

power / communications	battery CR 2032	wireless 868 MHz
dimensions [mm] / colour	37 x 37 x 16	white

EU-C-mini

WIRELESS ROOM TEMPERATURE SENSOR



- air temperature measurement,
- compact in size

power / communications	battery CR 2032	wireless 868 MHz
dimensions [mm] / colour	37 x 37 x 16	white

EU-C-8r

WIRELESS ROOM TEMPERATURE SENSOR



- air temperature measurement

power / communications	battery 2xAAA 1.5V	wireless 868 MHz
dimensions [mm] / colour	80 x 80 x 16	white, black

WIRELESS SYSTEM EXTENSION EU-WiFi 8s/8s p, EU-16s WiFi



EU-R-8b

WIRELESS ROOM REGULATOR

- air temperature measurement and control,
- heating program with time limit,
- LCD display without backlight

power / communications	battery 2xAAA 1,5V	wireless 868 MHz
dimensions [mm] / colour	80 x 80 x 16	white, black



EU-R-8z

WIRELESS ROOM REGULATOR

- air temperature measurement and control,
- heating program with time limit,
- LED display with backlight,
- 5V power supply included in the set mountable in an electrical box 960 mm

power / communications	Zasilacz 5V / 230V 50Hz	wireless 868 MHz
dimensions [mm] / colour	80 x 80 x 16	white, black



EU-R-8b PLUS

WIRELESS ROOM REGULATOR WITH HUMIDITY SENSOR

- air temperature measurement and control,
- measuring air humidity,
- additional control based on floor temperature (if optional floor sensor is used),
- heating program with time limit,
- LCD display without backlight

power / communications	battery 2xAAA 1,5V	wireless 868 MHz
dimensions [mm] / colour	80 x 80 x 16	white, black



EU-F-8z

WIRELESS ROOM REGULATOR WITH HUMIDITY SENSOR FOR FRAME SYSTEMS 55mm

- air temperature measurement and control,
- measuring air humidity,
- additional control based on floor temperature (if optional floor sensor is used),
- heating program with time limit,
- LCD display without backlight,
- **flush mountable, for the 55mm frame, list of compatible frame systems on page 25 or on webpage**

power / communications	230V 50Hz	wireless 868 MHz
dimensions [mm] / colour	55 x 55 x 11	white, black

EU-R-8s PLUS

WIRELESS ROOM REGULATOR
WITH HUMIDITY SENSOR

- air temperature measurement and control,
- measuring air humidity,
- additional control based on floor temperature (if optional floor sensor is used),
- heating program with time limit,
- LCD display, temporary backlit



power / communications

battery 2xAAA 1,5V

wireless 868 MHz

dimensions [mm] / colour

84 x 84 x 24

white, black

EU-R-8pb PLUS

WIRELESS ROOM REGULATOR
WITH HUMIDITY SENSOR

- air temperature measurement and control,
- measuring air humidity,
- additional control based on floor temperature (if optional floor sensor is used),
- heating program with time limit,
- LCD display, temporary backlit
- mountable in an electrical box \varnothing 60 mm



power / communications

battery 2xAAA 1,5V

wireless 868 MHz

dimensions [mm] / colour

84 x 84 x 16

white, black

EU-R-8pz PLUS

WIRELESS ROOM REGULATOR
WITH HUMIDITY SENSOR

- air temperature measurement and control,
- measuring air humidity,
- additional control based on floor temperature (if optional floor sensor is used),
- heating program with time limit,
- LCD display, temporary backlit
- power supply 230V / 50Hz
- mountable in an electrical box \varnothing 60 mm



power / communications

230V 50Hz

wireless 868 MHz

dimensions [mm] / colour

84 x 84 x 16

white, black

EU-R-8x

WIRELESS ROOM REGULATOR
WITH HUMIDITY SENSOR

- air temperature measurement and control,
- hysteresis 0,2 - 4°C,
- additional control based on floor temperature (if optional floor sensor is used),
- LCD display without backlight,
- **mechanical buttons**



power / communications

battery 2xAA 1,5V

wireless 868 MHz

dimensions [mm] / colour

81 x 81 x 21

white, black



EU-C-8zr

WIRELESS OUTSIDE TEMPERATURE SENSOR

- air temperature measurement

power / communications	battery 2xAAA 1,5V	wireless 868 MHz
dimensions [mm] / colour	80 x 50 x 20	white



EU-MW-1 / EU-MW-1 - 230

WIRELESS EXECUTIVE MODULE

- voltage-free relay, **MW-1**:
output load contact 1A/230V/50Hz,
- voltage relay, **MW-1/230**
output load contact 1A/230V/50Hz,
- automatic off in case of loss of communication

power / communications	230V 50Hz	wireless 868 MHz
dimensions [mm] / colour	50 x 80 x 60	white



EU-RP-4

SIGNAL REPEATER FOR WIRELESS DEVICES

- signal transmission between devices and individual wireless controllers, increasing the range
- compact size,
- simplified operation

power / communications	230V 50Hz	wireless 868 MHz
dimensions [mm] / colour	60 x 60 x 76	white



EU-MWN-1 / EU-MWN-1 - 230

WIRELESS WALL MOUNTED EXECUTIVE MODULE

- potential-free contact, **MWN-1**
contact load 1A / 230V / 50Hz
- voltage contact, **MWN-1-230**
contact load 1A / 230V / 50Hz
- automatic disconnection of the contact in case of lack of communication

power / communications	230V 50Hz	wireless 868 MHz
dimensions [mm] / colour	95 x 98 x 31	white

FLOOR HEATING SYSTEM

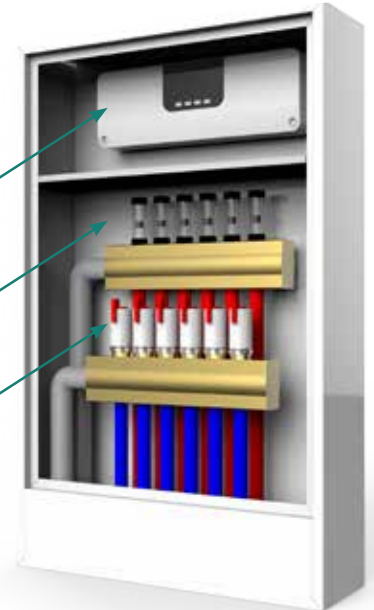
Basic installation requirements



Place for
main controller

Power supply
230V 50Hz

Thermoelectric
actuators





EU-L-5s

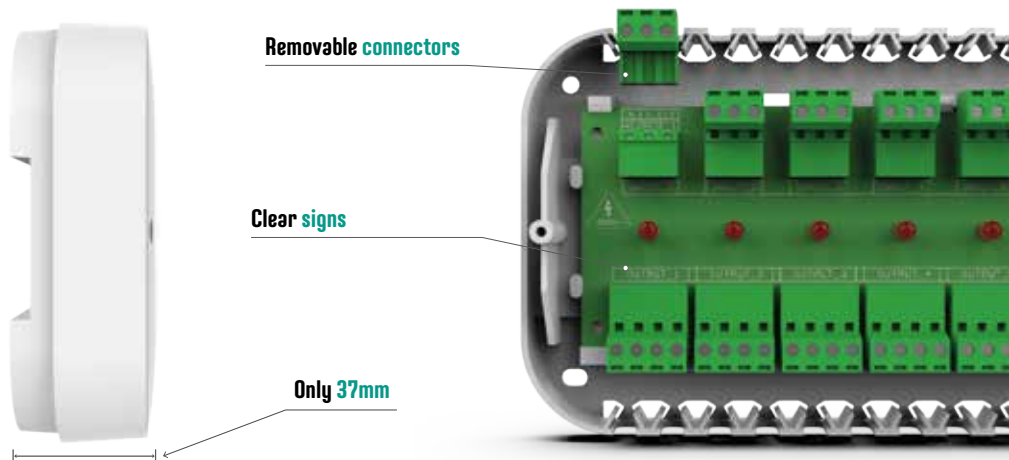
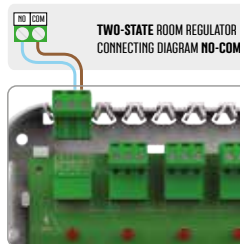
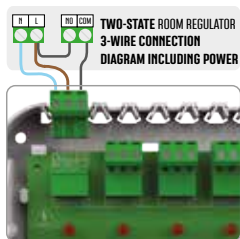
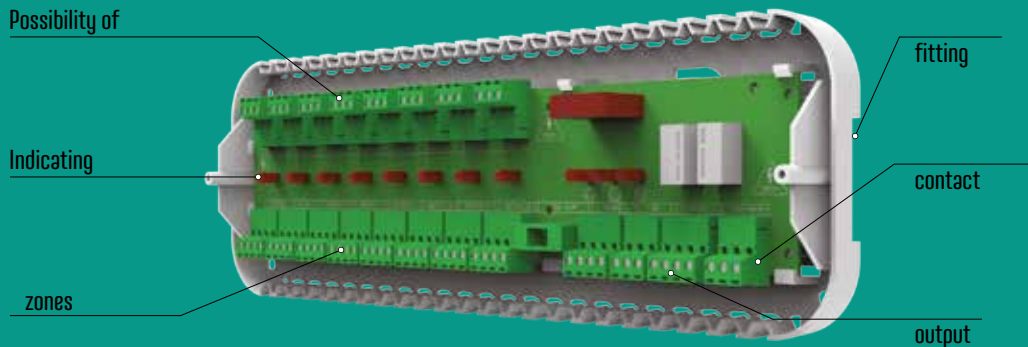
Functions:

Controlling up to **50 thermoelectric actuators** with the use of **22 outputs**, via **two-state room regulators**

- 3 outputs may support **12 actuators** (the max. of 4 actuators per one output) or each output load of max. 0,3A (~70W)
- 5 outputs may support **10 actuators** (the max. of 2 actuators per one output) or each output load of max. 0,3A (~70W)
- one 230V output for a pump
- voltage-free relay (e.g. to control an additional heating device)

power / communications	230V 50Hz	wired 2 or 3 core cable
dimensions [mm] / relay	337 x 114 x 37	• / 1 A
max load 1-8 / pump load	0,3 A	0,5 A

EU-L-5s



EU-L-10 WIRED FLOOR HEATING SYSTEM



EU- L-10

Functions

Possibility of controlling up to **50 thermoelectric actuators** with the use of **10 room regulators**:

- standard two-state regulators (2-core cable)
- dedicated regulators powered from the main controller (3-core cable)
- voltage - free relay (e.g. to control an additional heating device)
- voltage relay for controlling the floor pump
- **2-minute delay of output activation : voltage-free output and pump output**

MAX. 10 ZONES

ROOM REGULATORS POWERED
FROM MAIN CONTROLLER

power / communications	230V 50Hz	wired 2 or 3 cord
dimensions [mm] / relay	343 x 125 x 55	• / 1 A
outputs 1-10 load / pump output load	0,3 A	0,5 A

DEDICATED WIRED EXTENSIONS EU-L-10 - ROOM REGULATORS POWERED FROM MAIN CONTROLLER



EU-R-10b

DEDICATED WIRED ROOM REGULATOR

- air temperature measurement and control,
- hysteresis 0,2 - 4°C,
- LCD display without backlight



EU-R-10s PLUS

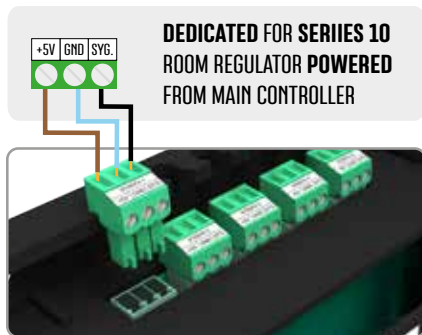
DEDICATED WIRED ROOM REGULATOR

- air temperature measurement and control,
- hysteresis 0,2 - 4°C,
- day/night program,
- additional control based on floor temperature (if optional floor sensor is used),
- temporary display backlight,
- touch buttons

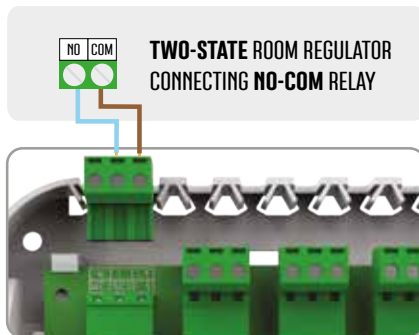
power / communications	powered from EU-L-10	wired 3 x 0,5mm ²
dimensions [mm] / colour	80 x 80 x 16	white, black

power / communications	powered from EU-L-10	wired 3 x 0,5mm ²
dimensions [mm] / colour	84 x 84 x 14	white

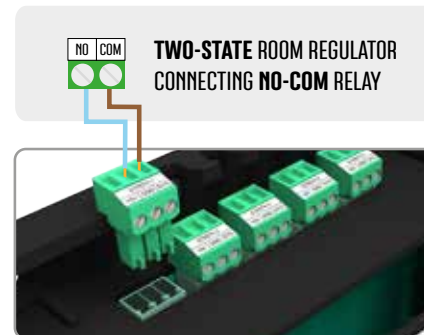
Connecting diagram of dedicated room regulator with **EU-L-10 controller**



Connecting diagram of two-state room regulator with **EU-L-5s controller**



Connecting diagram of two-state room regulator with **EU-L-10 controller**



SYSTEM EXTENSIONS EU-L-5s,EU-L-10 - STANDARD TWO-STATE ROOM REGULATORS



EU-293 v3

WIRED TWO-STATE ROOM REGULATOR

- air temperature measurement and control,
- hysteresis 0,2 - 4°C,
- weekly heating program,
- day/night program,
- Optimum Start function,
- additional control based on floor temperature (if optional floor sensor is used),
- temporary display backlight

power / communications	battery 2xAAA 1,5V	wired 2x0,75mm ²
dimensions [mm] / colour	125 x 83 x 14	white, black



EU-292 v3

WIRED TWO-STATE ROOM REGULATOR

- air temperature measurement and control,
- hysteresis 0,2 - 4°C,
- weekly heating program,
- day/night program,
- Optimum Start function,
- additional control based on floor temperature (if optional floor sensor is used),
- temporary display backlight

power / communications	battery 2xAA 1,5V	wired 2x0,75mm ²
dimensions [mm] / colour	121 x 95 x 24	white, black



EU-294 v1

WIRED TWO-STATE ROOM REGULATOR

- air temperature measurement and control,
- hysteresis 0,2 - 4°C,
- LCD display without backlight,
- possibility to set a limit the range of temperature changes
- sensor calibration

power / communications	battery 2xAAA 1,5V	wired 2x0,5mm ²
dimensions [mm] / colour	80 x 80 x 16	white, black



EU-297 v3

WIRED TWO-STATE ROOM REGULATOR

- air temperature measurement and control,
- hysteresis 0,2 - 4°C,
- additional control based on floor temperature (if optional floor sensor is used),
- day/night program,
- temporary display backlight,
- **flush mountable (electric box 60mm)**

power / communications	battery 2xAAA 1,5V	wired 2x0,5mm ²
dimensions [mm] / colour	84 x 84 x 13	white, black

SYSTEM EXTENSIONS EU-L-5s, EU-L-10 - STANDARD TWO-STATE ROOM REGULATORS



T-2.1

WIRED TWO-STATE ROOM REGULATOR

- air temperature measurement and control,
- measuring air humidity,
- hysteresis 0,2 - 4°C,
- LCD display without backlight,
- possibility to set a limit the range of temperature changes,
- sensor calibration

power / communications	battery 2xAAA 1,5V	wired 2x0,5mm ²
dimensions [mm] / colour	84 x 84 x 25	white



EU-T-3.1

WIRED TWO-STATE ROOM REGULATOR

- air temperature measurement and control,
- hysteresis 0,2 - 4°C,
- day/night program,
- additional control based on floor temperature (if optional floor sensor is used),
- touch buttons,
- temporary display backlight

power / communications	battery 2xAAA 1,5V	wired 2x0,5mm ²
dimensions [mm] / colour	95 x 95 x 25	white, black



EU-T-4.1

WIRED TWO-STATE ROOM REGULATOR

- air temperature measurement and control,
- hysteresis 0,2 - 4°C,
- weekly heating program,
- day/night program,
- hysteresis 0,2 - 4°C,
- Optimum Start function,
- temporary display backlight

power / communications	battery 2xAA 1,5V	wired 2x0,75mm ²
dimensions [mm] / colour	134 x 95 x 24	white, black

EU-293z v3

WIRED TWO-STATE ROOM REGULATOR - 230 V

- air temperature measurement and control,
- hysteresis 0,2 - 4°C,
- additional control based on floor temperature (if optional floor sensor is used),
- weekly heating program,
- day/night program,
- Optimum Start function
- temporary display backlight,
- **flush mountable (electric box 60mm)**

power / communications	230V 50Hz	wired 2x0,75mm ²
dimensions [mm] / colour	125 x 83 x 14	white, black

EU-297z v3

WIRED TWO-STATE ROOM REGULATOR - 230 V

- air temperature measurement and control,
- hysteresis 0,2 - 4°C,
- additional control based on floor temperature (if optional floor sensor is used),
- day/night program,
- temporary display backlight,
- **flush mountable (electric box 60mm)**

power / communications	230V 50Hz	wired 2x0,5mm ²
dimensions [mm] / colour	84 x 84 x 13	white, black

EU-F-2z v1

WIRED TWO-STATE ROOM REGULATOR FOR FRAME SYSTEMS 55mm - 230 V

- air temperature measurement and control,
- measuring air humidity,
- LCD display without backlight,
- sensor calibration,
- **flush mountable, for the 55mm frame, list of compatible frame systems on page 25 or on webpage**

power / communications	230V 50Hz	wired 2x0,75mm ²
dimensions [mm] / colour	55 x 55 x 11	white, black

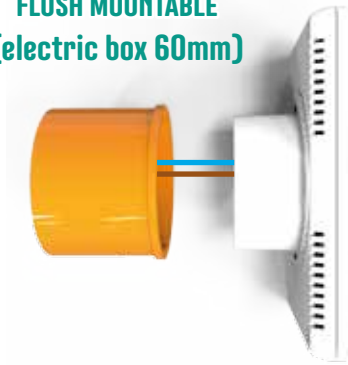
EU-F-4z v1

WIRED TWO-STATE ROOM REGULATOR FOR FRAME SYSTEMS 55mm - 230 V

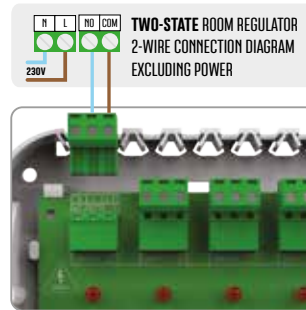
- air temperature measurement and control,
- hysteresis 0,2 - 4°C,
- weekly heating program,
- day/night program,
- Optimum Start function
- temporary display backlight,
- touch buttons,
- **flush mountable, for the 55mm frame**

power / communications	230V 50Hz	wired 2x0,5mm ²
dimensions [mm] / colour	55 x 55 x 11	white, black

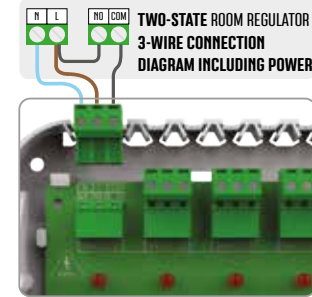
FLUSH MOUNTABLE
(electric box 60mm)



Connecting diagram of room regulator
powered 230V



Connecting diagram of room regulator
powered 230V
using power from **L-5s controller**



ROOM REGULATORS FOR FRAME SYSTEMS - POWERED 230V

EU-F-2z - wired two-state room regulator
EU-F-8z - room regulator for wireless systems



EU-F-4z - wired weekly two-state room regulator

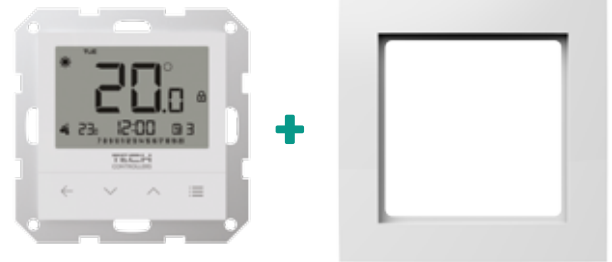




CREATE THE PERFECT COMBINATION OF STYLE IN YOUR HOME

Examples of compatible frame systems:

- **Berker** - S.1, B.3, B.7
- **Jung** - A CREATION
- **Gira** - STANDART 55, E2, EVENT, ESPRINT
- **SCHNEIDER** - SYSTEM M-PLAN, SYSTEM M-ELEGANCE, M-PURE, M-SMART



SYSTEM CONTROLLED VIA THE INTERNET



eModul



It's cold

In which room should
the temperature be raised?

VOICE CONTROL

 amazon alexa

 works with the
Google Assistant



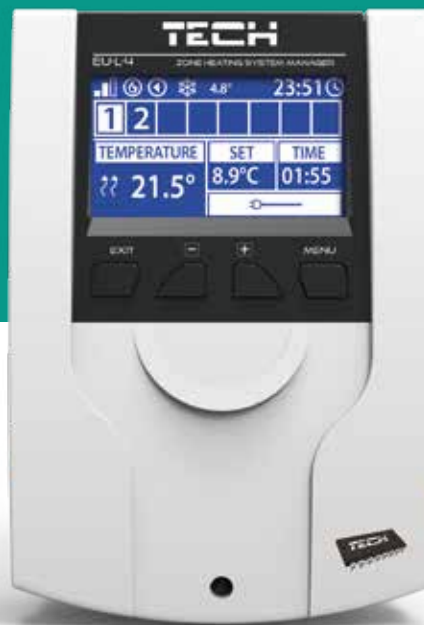
FOR HOT DAYS

Thanks to the **heating / cooling** function in **EU-L-8e, EU-L-9r, EU-L-X WiFi, EU-L-4X WiFi, EU-L-12** controllers, have the ability to control **surface cooling** too.

Room regulators equipped in the **air humidity sensor** are useful to control such work.

4

EU-L-4 UNIVERSAL FLOOR HEATING SYSTEM WITH WiFi MODULE



Function:

Controlling **4 voltage outputs** by 4 wired temperature sensors **EU-C-7p** or wireless temperature sensors **EU-C-mini, EU-CL-mini, EU-C-8r**

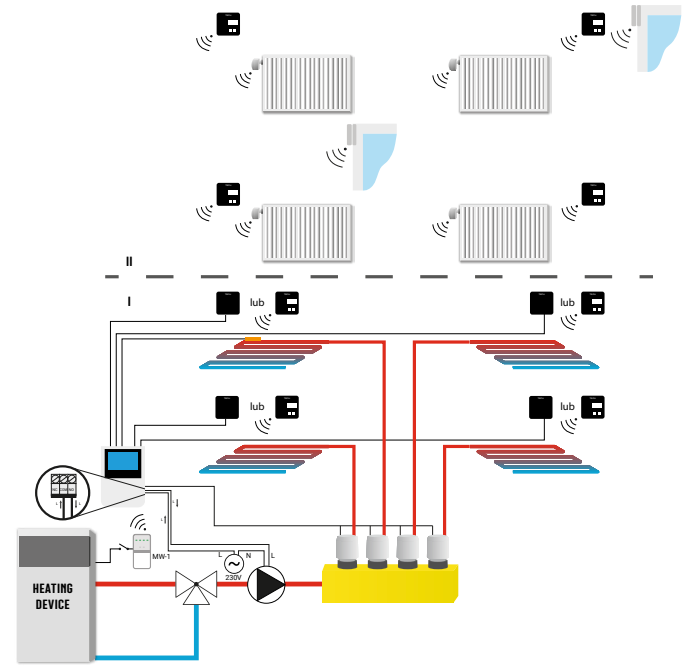
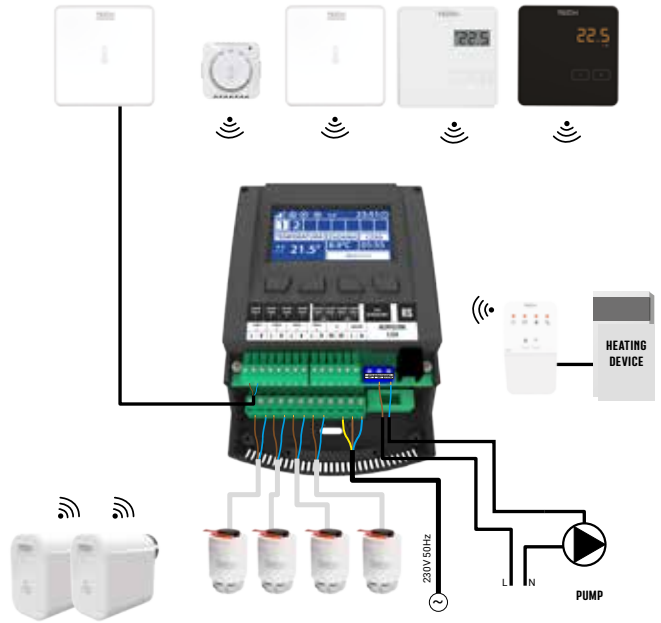
or wireless regulators **EU-R-8b, EU-R-8z**.

- voltage-free relay (to control an additional heating device or pump)
- possibility of controlling the installation via the Internet
- possibility of controlling **8 zones**:
 - 4 zones controlled by wireless temperature sensors **EU-C-mini, EU-CL-mini, EU-C-8r** or wireless regulators **EU-R-8b, EU-R-8z**,
 - 4 zones with voltage outputs controlled by 4 wired temperature sensors **EU-C-7p** or wireless temperature sensors **EU-C-mini, EU-CL-mini, EU-C-8r** or wireless regulators **EU-R-8b, EU-R-8z**,
 - possibility of controlling wireless actuators STT-868/STT-869 (the maximum of 6 per zone)
- possibility of connecting **4** wired or **8** wireless floor temperature sensors,
- **possibility of connecting 8 executive modules EU-MW-1 or EU-MW-1/230**,
- **software update via USB**

power / communications	230V 50Hz	wired / wireless
dimensions [mm] / voltage-free relay	110 x 163 x 57	• / 1 A
outputs 1 - 8 load / pump output load	0,3 A	0,5 A

CONNECTION DIAGRAM

EXAMPLE INSTALATION DIAGRAM



EU-L-8e WIRELESS FLOOR HEATING SYSTEM



Functions:

Controlling up to **50 thermoelectric actuators** with the use of **22 outputs**, via:

wireless room regulators and wireless room temperature sensors

– 3 zones supporting 4 outputs each (if there are more actuators, the maximum output load is 0,3A)

– 5 zones supporting 2 outputs each (if there are more actuators, the maximum output load is 0,3A)

- one 230V output for a pump
- voltage-free relay (to control an additional heating device)
- optional summer mode with external temperature sensor

• heating/cooling function

- possibility of limiting the range of temperature change introduced from the zone level
- possibility of controlling wireless actuators **STT-868/STT-869** (the maximum of 6 per zone)
- possibility of installing up to **6 wireless window opening sensors EU-C-2n** in each zone
- possibility of connecting **6 executive modules EU-MW-1 or EU-MW-1/230**
- possibility of connecting **EU-M-8e wireless control panel**
- possibility of connecting **EU-505 Ethernet or WiFi RS for controlling the installation via the Internet**
- possibility of connecting **EU-i-1 or EU-i-1m valve module**
- software update via USB

power / communications	230V 50Hz	wireless 868 MHz
dimensions [mm] / voltage-free relay	335 x 105 x 75	• / 1 A
outputs 1 - 8 load / pump output load	0,3 A	0,5 A

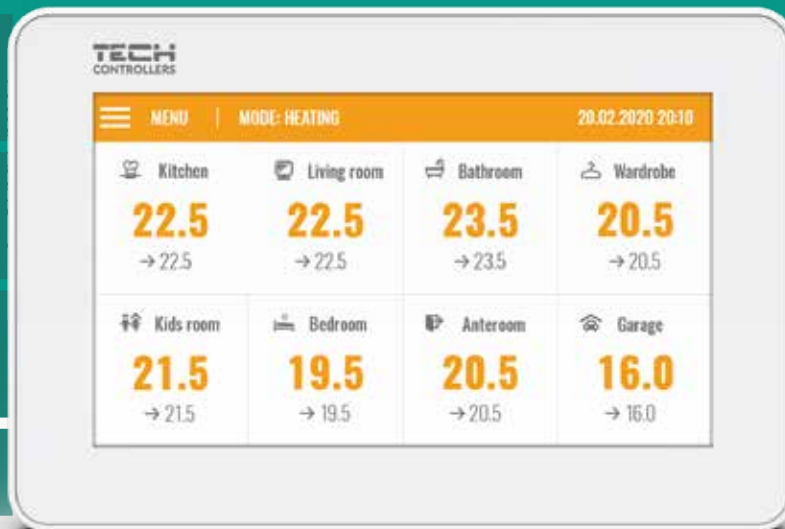
EU-M-8n WIRELESS CONTROL PANEL FOR EU-L-8e

4,3" Touch screen

Adjusting each zone parameters in one place

Can measure air temperature in 1 zone

Wireless communication



EU-M-8n DEDICATED WIRELESS CONTROL PANEL (FLUSH-MOUNTED)

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, alert clock, screen lock, easy to mount in electrical box (ø60mm).

Power supply: 230V 50Hz.

Dimensions: 127 x 90 x 20 mm



FLUSH MOUNTED

2 COLOURS



power	230V 50Hz
dimensions [mm]	127 x 90 x 20
communications	wireless 868 MHz

TECH
CONTROLLERS

EU-L-9r UNIVERSAL FLOOR HEATING SYSTEM



Functions:

Controlling up to **50 thermoelectric actuators** with the use of **19 outputs**

- 3 zones with 3 outputs each (if there are more actuators, the maximum output load is 0,3A)
- 5 zones with 2 outputs each (if there are more actuators, the maximum output load is 0,3A)
- one 230V output for a pump
- voltage-free relay (to control an additional heating device)
- possibility of connecting **EU-i-1 or EU-i-1m valve module**
- **possibility of connecting up to 4 main controllers controllers in series and controlling them via 1 control panel**
- **possibility of controlling the system online via eModul app (EU-M-9 panel is necessary)**
- **heating/cooling function**
- software update via USB

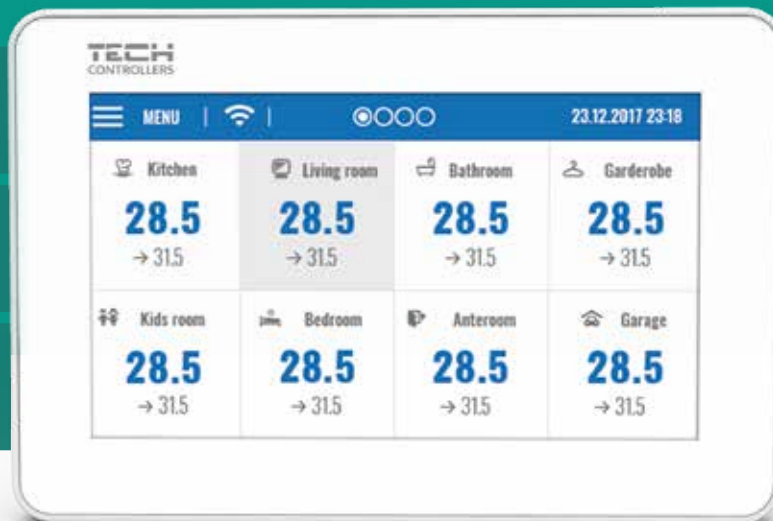
power / communications	230V 50Hz	wired/wireless
dimensions [mm] / voltage-free relay	343 x 120 x 55	• / 0,5 A
outputs 1 - 8 load / pump output load	0,3 A	0,5 A

EU-M-9r WIRED CONTROL PANEL FOR EU-L-9r

4,3" Touch screen

Adjusting each zone parameters in one place

Built in WiFi module



M-9r DEDICATED WIRED CONTROL PANEL (FLUSH-MOUNTED)

Case: White or Black

Main functions: Zone registration, possibility of adjusting each zone parameters (Schedule settings, pre-set temperature), possibility of activating/deactivating a zone, setting time and date for the whole set, screensaver, alarm clock, screen lock, WiFi communication (possibility of control via eModul platform) Flush mountable in 60mm mounting box

Supply voltage 230V 50Hz

Dimensions: 127 x 90 x 20 mm



2 COLOURS



power	230V 50Hz
dimensions [mm]	127 x 90 x 20
communications	wired 4 x 0,5 / UTP

FLUSH MOUNTED

TECH
CONTROLLERS

DEDICATED SYSTEM EXTENSIONS EU-L-9r - ROOM REGULATORS

EU-R-9b

DEDICATED WIRED ROOM REGULATOR

- air temperature measurement and control,
- hysteresis 0,2 - 4°C,
- LCD display without backlight,
- additional control based on floor temperature (if floor sensor is used)



EU-R-9s PLUS

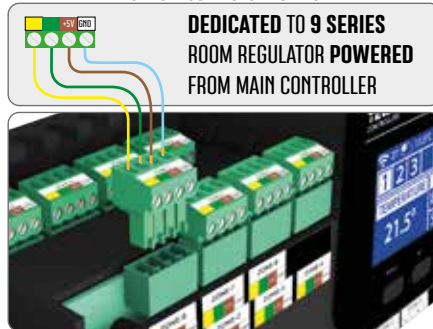
DEDICATED WIRED ROOM REGULATOR

- air temperature measurement and control,
- hysteresis 0,2 - 4°C,
- day/night program,
- additional control based on floor temperature (if optional floor sensor is used),
- temporary display backlight,
- touch buttons

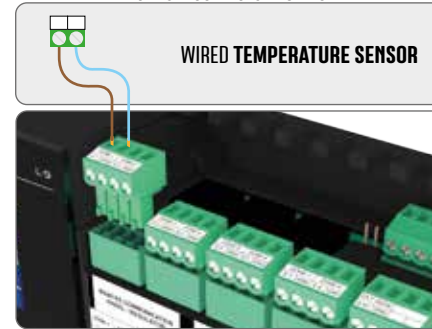
power / communications	powered from controller	wired 4 x 0,5 / UTP
dimensions [mm] / colour	80 x 80 x 16	white, black

power / communications	powered from controller	wired 4 x 0,5 / UTP
dimensions [mm] / colour	84 x 84 x 14	white

Connecting of dedicated room regulator
to main controller EU-L-9r



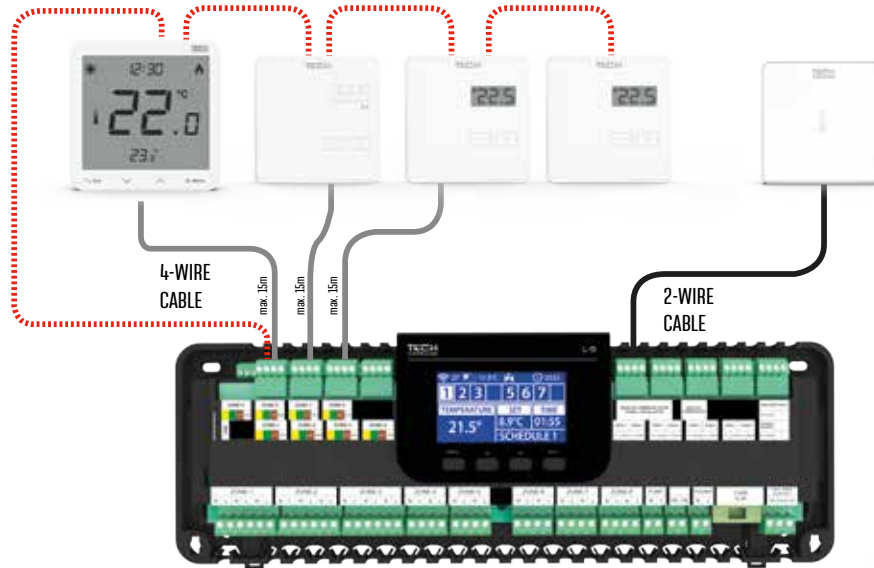
Connecting of wired temperature sensor EU-C-7p
to main controller EU-L-9r



CONNECTION DIAGRAM - ADDITIONAL EXTENSION

Optional series connection of controllers -
device registration required!

MAX. 4 pcs
Any pairing order

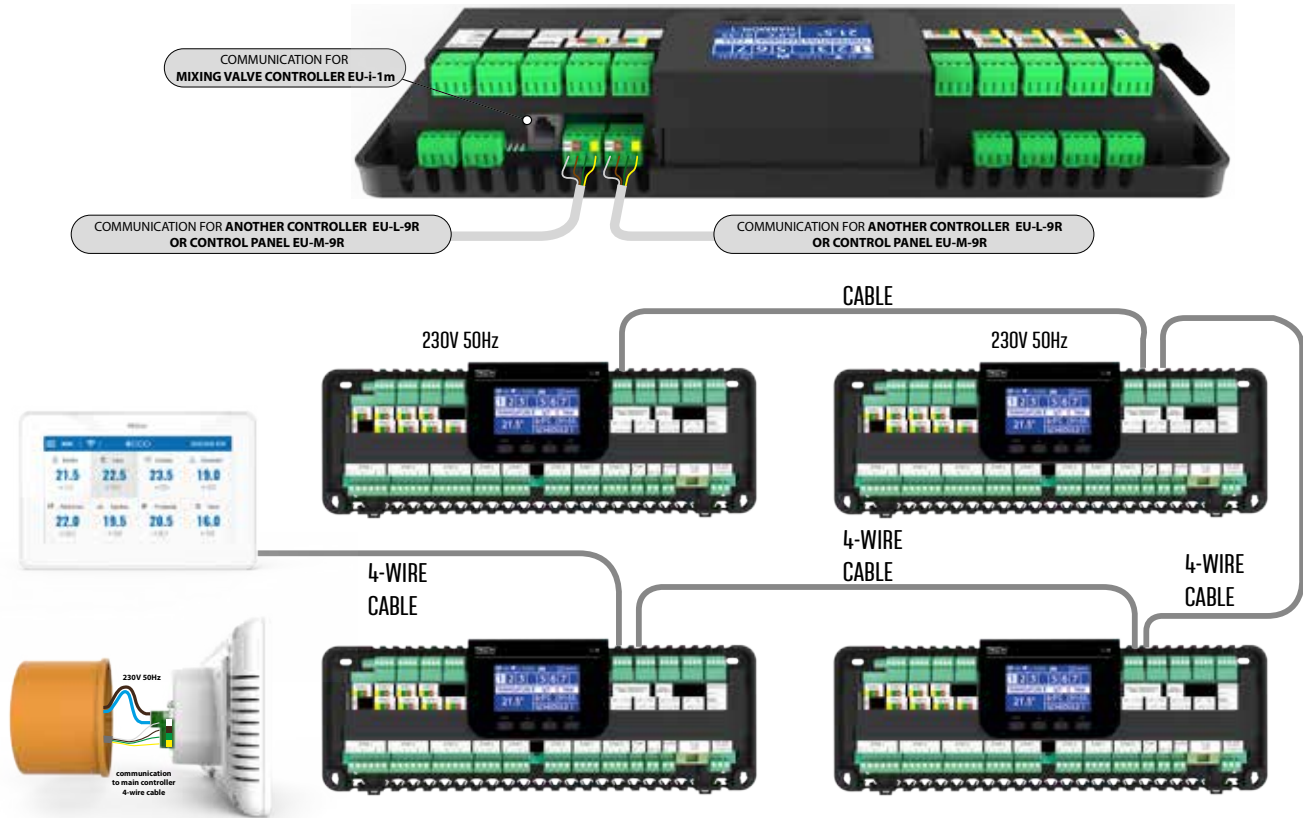


WIRELESS EXTENSION



All elements from page 46-50

CONNECTION DIAGRAM - COMMUNICATIONS BETWEEN CONTROLLERS



EU-L-4X WiFi UNIVERSAL FLOOR HEATING SYSTEM

NEW



Function:

- management of 8 radiator zones or 4 radiator zones and 4 floor zones (with built-in 4 voltage relay outputs)
- management of 8 floor zones when connecting the **ML-4X WiFi** extension module (additional 4 voltage relay outputs)
- control of 8 zones using dedicated wired controllers or wireless system controllers or temperature sensors
- control of 4 zones using wired temperature sensors C-7p
- control of floor temperature sensor C-8f
- external temperature sensor C-8zr support and weather control
- communication with dedicated devices using the **TECH SBUS** protocol
- one 230V output for a pump
- voltage-free relay (to control an additional heating device)
- possibility of controlling wireless actuators **STT-868/STT-869** (the maximum of 6 per zone)
- in each zone, it is possible to install up to 6 wireless **EU-C-2n** window opening sensors
- possibility of connecting **6 executive modules EU-MW-1 or EU-MW-1/230**
- possibility of connecting **EU-i-1 or EU-i-1m valve module**
- **built-in WiFi module**
- the ability to control the installation via the Internet, **eModul** application
- **heating/cooling function**
- software update via USB

power / communications	230V 50Hz	wired/wireless
dimensions [mm] / voltage-free relay	182x 120 x 53	• / 0,5 A
outputs 1 - 8 load / pump output load	0,3 A	0,5 A

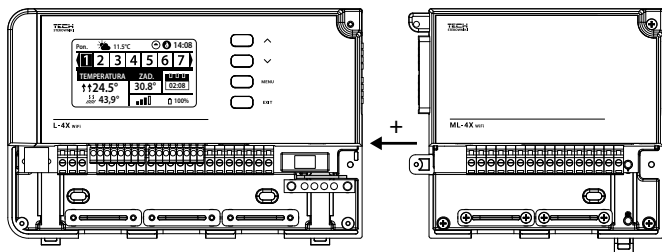
ML-4X WiFi IS AN EXTENSION OF THE EU-L-4X WiFi SYSTEM

THE MODULE DOES NOT
OPERATE INDEPENDENTLY



Functions:

- module with 4 additional voltage relay outputs extending the capabilities of the EU-L-4X WiFi controller by adding 4 extra floor zones
- the module does not operate independently



power	230V 50Hz
dimensions [mm]	121 x 120 x 53
outputs 4- 8 load	0,3 A

EU-L-X WiFi UNIVERSAL FLOOR HEATING SYSTEM



power / communications	230V 50Hz	wired/wireless
dimensions [mm] / voltage-free relay	34,3 x 120 x 55	• / 0,5 A
outputs 1 - 8 load / pump output load	0,3 A	0,5 A

EU-L-12 UNIVERSAL FLOOR HEATING SYSTEM



MASTER

Functions:

- the ability to handle max. 50 thermoelectric actuators, zones can be created using **8 dedicated wired regulators or wireless system regulators or temperature sensors, or wired temperature sensors C-7p:**
 - 3 zones with 3 outputs each (if there are more actuators, the maximum output load is 0,3A)
 - 5 zones with 2 outputs each (if there are more actuators, the maximum output load is 0,3A)
- one 230V output for a pump
- voltage-free relay (to control an additional heating device)
- possibility of controlling wireless actuators **STT-868/STT-869** (the maximum of 6 per zone)
- in each zone, it is possible to install up to 6 wireless **EU-C-2n** window opening sensors
- possibility of connecting **6 executive modules EU-MW-1 or EU-MW-1/230**
- possibility of connecting **EU-i-1 or EU-i-1m valve module**
- **up to 4 EU-ML-12 slaves can be connected**
- the EU-M-12 control panel can be connected
- possibility to control the installation via the Internet, **eModul** application - **EU-WiFi L** module included
- **heating/cooling function**
- software update via USB
- **OpenTherm** communication

power / communications	230V 50Hz	wired/wireless
dimensions [mm] / voltage-free relay	343 x 120 x 55	• / 0,5 A
outputs 1 - 8 load / pump output load	0,3 A	0,5 A

EU-M-12 UNIVERSAL CONTROL PANEL FOR EU-L-12

4,3" Touch screen

Adjusting each zone parameters in one place

Control up to 40 zones



M-12 WIRED/WIRELESS CONTROL PANEL

Case: White or Black

Main functions: Zone registration, possibility of adjusting each zone parameters (Schedule settings, pre-set temperature), possibility of activating/deactivating a zone, setting time and date for the whole set, screensaver, alarm clock, screen lock.

Communication with the EU-L-12 master controller can be wired (RS 485) or wireless.

Without built-in temperature sensor.



WALL MOUNTED
(M-12T)

FLUSH MOUNTED
(M-12)



2 COLOURS



power	230V 50Hz (M-12)
dimensions [mm]	127 x 90 x 20
communications	wired 4-cord/wireless

EU-ML-12 IS AN EXTENSION OF THE EU-L-12 SYSTEM

SLAVE

Additional module
for EU-L-12 Master



Functions:

- the device is not standalone controller, it has to be connected to the EU-L-12 - MASTER
- wired (RS 485) or wireless communication with the MASTER controller EU-L-12
- the ability to handle max. 50 thermoelectric actuators, zones can be created using **8 dedicated wired regulators or wireless system regulators or temperature sensors, or wired temperature sensors C-7p:**
 - 3 zones with 3 outputs each (if there are more actuators, the maximum output load is 0,3A)
 - 5 zones with 2 outputs each (if there are more actuators, the maximum output load is 0,3A)
- one 230V output for a pump
- voltage-free relay (to control an additional heating device)
- possibility of controlling wireless actuators **STT-868/STT-869** (the maximum of 6 per zone)
- in each zone, it is possible to install up to 6 wireless **EU-C-2n** window opening sensors
- possibility of connecting **6 executive modules EU-MW-1 or EU-MW-1/230**
- possibility of connecting **EU-i-1 or EU-i-1m valve module**
- includes **repeater function**
- **heating/cooling function**
- software update via USB

power / communications	230V 50Hz	wired/wireless
dimensions [mm] / voltage-free relay	34,3 x 120 x 55	• / 0,5 A
outputs 1 - 8 load / pump output load	0,3 A	0,5 A



EU-R-X

DEDICATED WIRED ROOM REGULATOR FOR EU-L-X, EU-L-12, EU-ML-12 SERIES

- air temperature measurement and control,
- hysteresis 0,2 - 4°C,
- additional control based on floor temperature (if optional floor sensor is used),
- LCD display without backlight,
- **mechanical buttons**

power / communications	powered from controller	wired TECH SBUS
dimensions [mm] / colour	80 x 80 x 16	biały, czarny



EU-R-12b

DEDICATED WIRED ROOM REGULATOR WITH HUMIDITY SENSOR FOR EU-L-X, EU-L-12, EU-ML-12 SERIES

- air temperature measurement and control,
- measuring air humidity,
- hysteresis 0,2 - 4°C,
- additional control based on floor temperature (if optional floor sensor is used),
- LCD display without backlight,
- touch buttons

power / communications	powered from controller	wired TECH SBUS
dimensions [mm] / colour	84 x 84 x 16	white, black



EU-R-12s

DEDICATED WIRED ROOM REGULATOR WITH HUMIDITY SENSOR FOR EU-L-X, EU-L-12, EU-ML-12 SERIES

- air temperature measurement and control,
- measuring air humidity,
- hysteresis 0,2 - 4°C,
- additional control based on floor temperature (if optional floor sensor is used),
- temporary display backlight,
- touch buttons

power / communications	powered from controller	wired TECH SBUS
dimensions [mm] / colour	84 x 84 x 14	white, black



EU-F-12b

DEDICATED WIRED ROOM REGULATOR WITH HUMIDITY SENSOR FOR FRAME SYSTEMS 55mm FOR EU-L-X, EU-L-12, EU-ML-12 SERIES

- air temperature measurement and control,
- measuring air humidity,
- additional control based on floor temperature (if optional floor sensor is used),
- LCD display without backlight,
- **flush mountable, for the 55mm frame, list of compatible frame systems on page 25**

power / communications	powered from controller	wired TECH SBUS
dimensions [mm] / colour	55 x 55 x 11	white, black

SYSTEM EXTENSION EU-L-9r - WIRED TEMPERATURE SENSORS



EU-C-7p

WIRED ROOM TEMPERATURE SENSOR

- air temperature measurement

power / communications	-	wired 2 x 0,5 mm ²
dimensions [mm] / colour	80 x 80 x 16	white, black



EU-291p NTC

WIRED OUTDOOR TEMPERATURE SENSOR

- air temperature measurement

power / communications	-	wired 2 x 0,5 mm ²
dimensions [mm] / colour	60 x 80 x 20	white

WIRELESS EXTENSION EU-L-4 WiFi, EU-L-8e, EU-L-9r - MEASURING TEMPERATURE



EU-CL-mini

WIRELESS ROOM TEMPERATURE SENSOR
IN HERMETIC CASING IP64

- air temperature measurement,
- meets the IP64 standard,
- compact in size

power / communications	battery CR 2032	wireless 868 MHz
dimensions [mm] / colour	37 x 37 x 16	white



EU-C-mini

WIRELESS ROOM TEMPERATURE SENSOR

- air temperature measurement,
- compact in size

power / communications	battery CR 2032	wireless 868 MHz
dimensions [mm] / colour	37 x 37 x 16	white

WIRELESS EXTENSION EU-L-4 WiFi, EU-L-8e, EU-L-9r - MEASURING TEMPERATURE

EU-C-8f

WIRELESS FLOOR TEMPERATURE SENSOR

- measuring floor temperature,



power / communications	battery 2xAAA 1,5V	wireless 868 MHz
dimensions [mm] / colour	80 x 80 x 16	white, black

EU-C-8r

WIRELESS ROOM TEMPERATURE SENSOR

- air temperature measurement,



power / communications	battery 2xAAA 1,5V	wireless 868 MHz
dimensions [mm] / colour	80 x 80 x 16	white, black

WIRELESS EXTENSION EU-L-4 WiFi, EU-L-8e, EU-L-9r - CONTROL TEMPERATURE

EU-R-8b

WIRELESS ROOM REGULATOR

- air temperature measurement and control,
- heating program with time limit,
- LCD display without backlight,



power / communications	battery 2xAAA 1,5V	wireless 868 MHz
dimensions [mm] / colour	80 x 80 x 16	white, black

EU-R-8b PLUS

WIRELESS ROOM REGULATOR WITH HUMIDITY SENSOR

- air temperature measurement and control,
- measures air humidity,
- additional control based on floor temperature (if optional floor sensor is used),
- heating program with time limit,
- LCD display without backlight



power / communications	battery 2xAAA 1,5V	wireless 868 MHz
dimensions [mm] / colour	85 x 85 x 15	white, black



EU-R-8z

WIRELESS ROOM REGULATOR

- air temperature measurement and control,
- heating program with time limit,
- LED display with backlight,
- 5V power supply included in the set mountable in an electrical box $\varnothing 60$ mm

power / communications	5V / 230V 50Hz	wireless 868 MHz
dimensions [mm] / colour	80 x 80 x 16	white, black



EU-R-8s PLUS

WIRELESS ROOM REGULATOR WITH HUMIDITY SENSOR

- air temperature measurement and control,
- measuring air humidity,
- additional control based on floor temperature (if optional floor sensor is used),
- heating program with time limit,
- LCD display, temporary backlight

power / communications	battery 2xAAA 1,5V	wireless 868 MHz
dimensions [mm] / colour	84 x 84 x 24	white, black



EU-R-8pb PLUS

WIRELESS ROOM REGULATOR WITH HUMIDITY SENSOR

- air temperature measurement and control,
- measuring air humidity,
- additional control based on floor temperature (if optional floor sensor is used),
- heating program with time limit,
- LCD display, temporary backlight,
- mountable in an electrical box $\varnothing 60$ mm

power / communications	battery 2xAAA 1,5V	wireless 868 MHz
dimensions [mm] / colour	84 x 84 x 16	white, black



EU-R-8pz PLUS

WIRELESS ROOM REGULATOR WITH HUMIDITY SENSOR

- air temperature measurement and control,
- measuring air humidity,
- additional control based on floor temperature (if optional floor sensor is used),
- heating program with time limit,
- LCD display, temporary backlight
- power supply 230V / 50Hz,
- mountable in an electrical box $\varnothing 60$ mm

power / communications	230V 50Hz	wireless 868 MHz
dimensions [mm] / colour	84 x 84 x 16	white, black

WIRELESS EXTENSION EU-L-4 WiFi, EU-L-8e, EU-L-9r - CONTROL TEMPERATURE



EU-F-8z

WIRELESS ROOM REGULATOR WITH HUMIDITY SENSOR FOR FRAME SYSTEMS 55mm

- air temperature measurement and control,
- measuring air humidity,
- additional control based on floor temperature (if optional floor sensor is used),
- heating program with time limit,
- LCD display without backlight,
- **flush mountable, for the 55mm frame, list of compatible frame systems on page 25 or on webpage**

power / communications	230V 50Hz	wireless 868 MHz
dimensions [mm] / colour	55 x 55 x 11	white, black



EU-R-8x

WIRELESS ROOM REGULATOR WITH HUMIDITY SENSOR

- air temperature measurement and control,
- hysteresis 0,2 - 4°C,
- additional control based on floor temperature (if optional floor sensor is used),
- LCD display without backlight,
- **mechanical buttons**

power / communications	battery 2xAA 1,5V	wireless 868 MHz
dimensions [mm] / colour	81 x 81 x 21	white, black

WIRELESS EXTENSION EU-L-4 WiFi, EU-L-8e, EU-L-9r - ADDITIONAL MODULES



EU-C-8zr

WIRELESS OUTDOOR TEMPERATURE SENSOR

- air temperature measurement

power / communications	battery 2xAAA 1,5V	wireless 868 MHz
dimensions [mm] / colour	63 x 77 x 20	white



EU-C-2n

WIRELESS WINDOW OPENING SENSOR

- window opening signal,
- heating control,
- compact dimensions,
- discreet design,
- long-life battery

power / communications	battery EVE ER14250 S	wireless 868 MHz
dimensions [mm] / colour	73 x 32 x 19, 37 x 10 x 10	white, antracite, brown, golden oak



STT-869

WIRELESS THERMOELECTRIC ACTUATOR

- output - nut with M30x1,5 screw thread
- new transmission,
- pairing button on the outside of the casing,
- possibility of using adapters for other types of valves
- RAN and RTDN adapters in set

power / communications	battery 2xAA 1,5V	wireless 868 MHz
dimensions [mm] / colour	82 x 70 x 46	white



G-X

WIRELESS THERMOELECTRIC ACTUATOR

- output - nut with M30x1,5 screw thread
- possibility of using adapters for other types of valves
- RAN and RTDN adapters in set,

power / communications	battery 2xAA 1,5V	wireless 868 MHz
dimensions [mm] / colour	82 x 47 x 47	white



EU-MW-1 / EU-MW-1 - 230

WIRELESS EXECUTIVE MODULE

- voltage-free relay, **MW-1**:
output load contact 1A/230V/50Hz,
- voltage relay, **MW-1/230**,
output load contact 10A/230V/50Hz,
- automatically turns off when communication is lost

power / communications	230V 50Hz	wireless 868 MHz
dimensions [mm] / colour	50 x 80 x 60	white



EU-RP-4

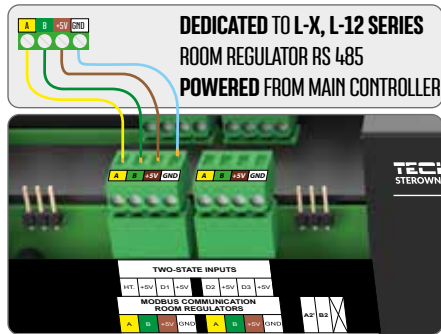
SIGNAL REPEATER

- It sends signal between wireless devices increasing the signal coverage/range,
- compact dimensions,
- simplified handling

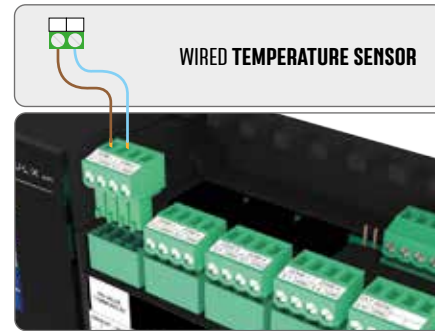
power / communications	230V 50Hz	wireless 868 MHz
dimensions [mm] / colour	60 x 60 x 76	white

CONNECTION DIAGRAM

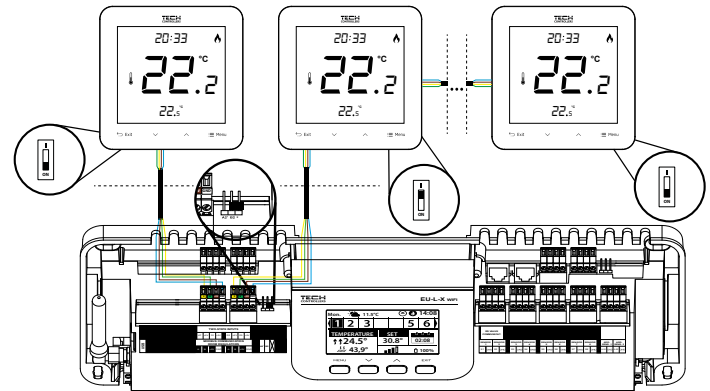
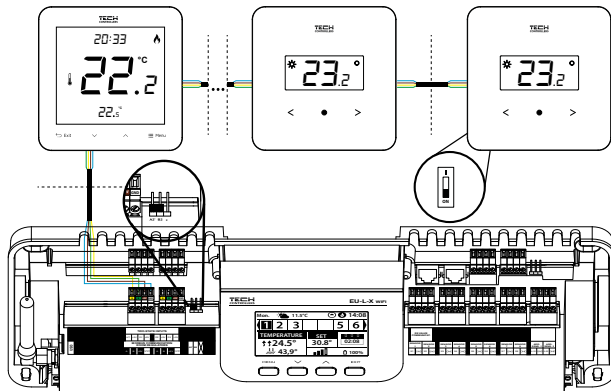
Connection of the dedicated room regulator to EU-L-X, EU-L-12, EU-ML-12



Connection of the wired temperature sensor EU-C-7p to EU-L-X, EU-L-12, EU-ML-12

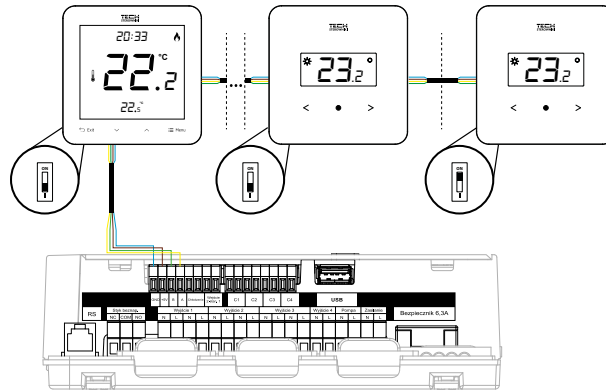


Termination method for RS 485 devices connected in series in EU-L-X, EU-L-12, EU-ML-12

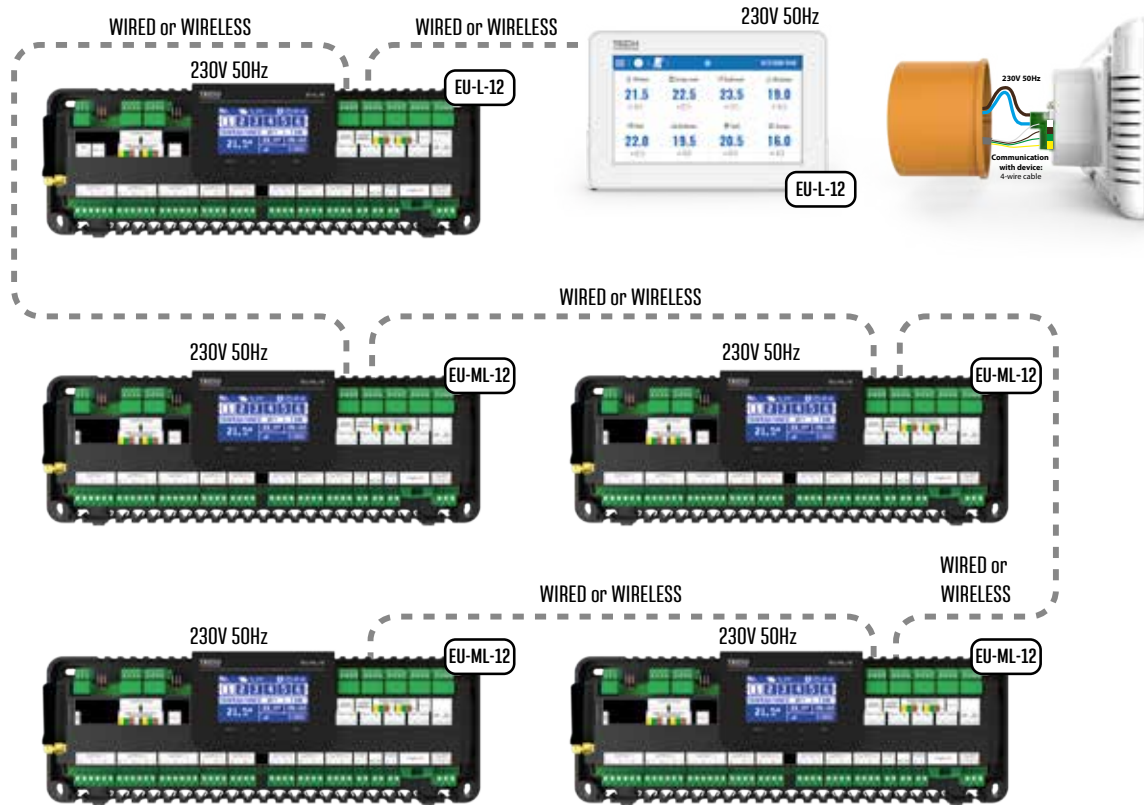


SCHEMATY PODŁĄCZENIA

Termination method for RS 485 devices connected in series in EU-L-4X WiFi



CONNECTION DIAGRAM - COMMUNICATION BETWEEN MASTER EU-L-12 AND EU-ML-12 SLAVE DEVICES AND EU-M-12 PANEL





STT-230/2

THERMOELECTRIC ACTUATOR

- fittings - nut with M30 x 1,5 screw thread or M28x1,5
- class - IP54,
- max. operation temperature 60 °C

power / work power	230V 50Hz	2W
opening time / stroke	<5 min.	3,5mm



STT-230/2 S

THERMOELECTRIC ACTUATOR

- fittings - nut with M30 x 1,5 screw thread
- class - IP50,
- max. operation temperature 60 °C

power / work power	230V 50Hz	3,5W
opening time / stroke	~ 3 min.	3,7mm



STT-230/2 T

THERMOELECTRIC ACTUATOR

- fittings - nut with M30 x 1,5 screw thread
- class - IP54,
- max. operation temperature 60 °C

power / work power	230V 50Hz	3W
opening time / stroke	~ 3,5 min.	3,7mm



STT-230/2 M

THERMOELECTRIC ACTUATOR

- fittings - nut with M30 x 1,5 screw thread
- class - IP42
- max. operation temperature 60 °C

power / work power	230V 50Hz	1W
opening time / stroke	~ 4 min.	5mm

WIRED EXTENSION EU-L-8e - ADDITIONAL MODULES



EU-505

INTERNET MODULE

- remote control of the floor heating system via eModul
- LAN connection,
- power supply 5V

power / communications	5V / 230V 50Hz	wired RS
dimensions [mm] / colour	120 x 80 x 31	black



EU-WiFi RS

INTERNET MODULE

- remote control of the floor heating system via eModul
- WiFi connection
- web standard 2.4 MHz b/g/n
- power supply 5V

power / communications	5V / 230V 50Hz	wired RS
dimensions [mm] / colour	105 x 135 x 28	white

WIRED EXTENSION EU-L-8e, EU-L-9r - ADDITIONAL MODULES



EU-i-1m

MIXING VALVE CONTROLLER

- smooth control of a three or four-way valve,
- control of the valve pump,
- return temperature protection,
- weather-based control,
- weekly work schedule

power / communications	230V 50Hz	wired RS
dimensions [mm] / colour	110 x 163 x 57	white



STZ-120 T

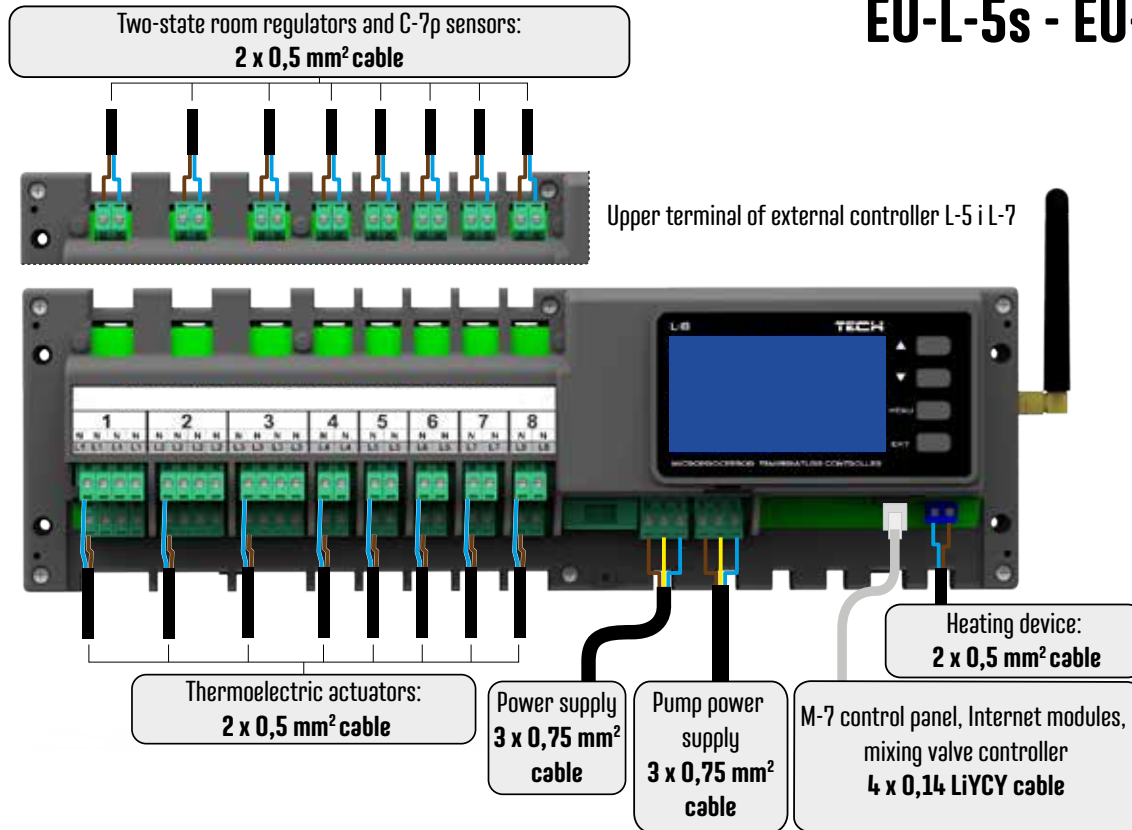
MIXING VALVE ACTUATOR

- smooth control of a three or four-way valve,
- 3-point signal control,
- manual control,
- cooperation with valves: **ESBE, Afriso, Herz, Womix, Honeywell, Wita**

power / 90° turning time	230V 50Hz	120s
dimensions [mm] / colour	75 x 80 x 105	black

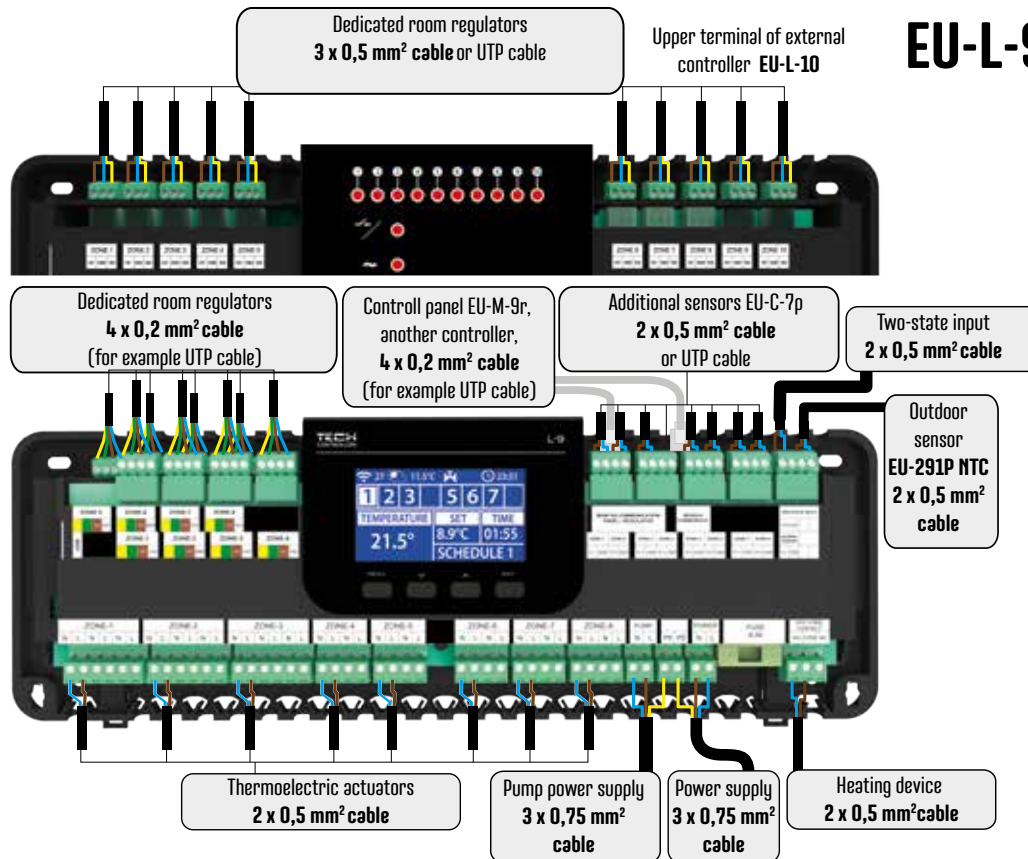
RECOMMENDED CABLE DIAMETERS FOR CONNECTING PARTICULAR SYSTEM MODULES

EU-L-5s - EU-L-8e



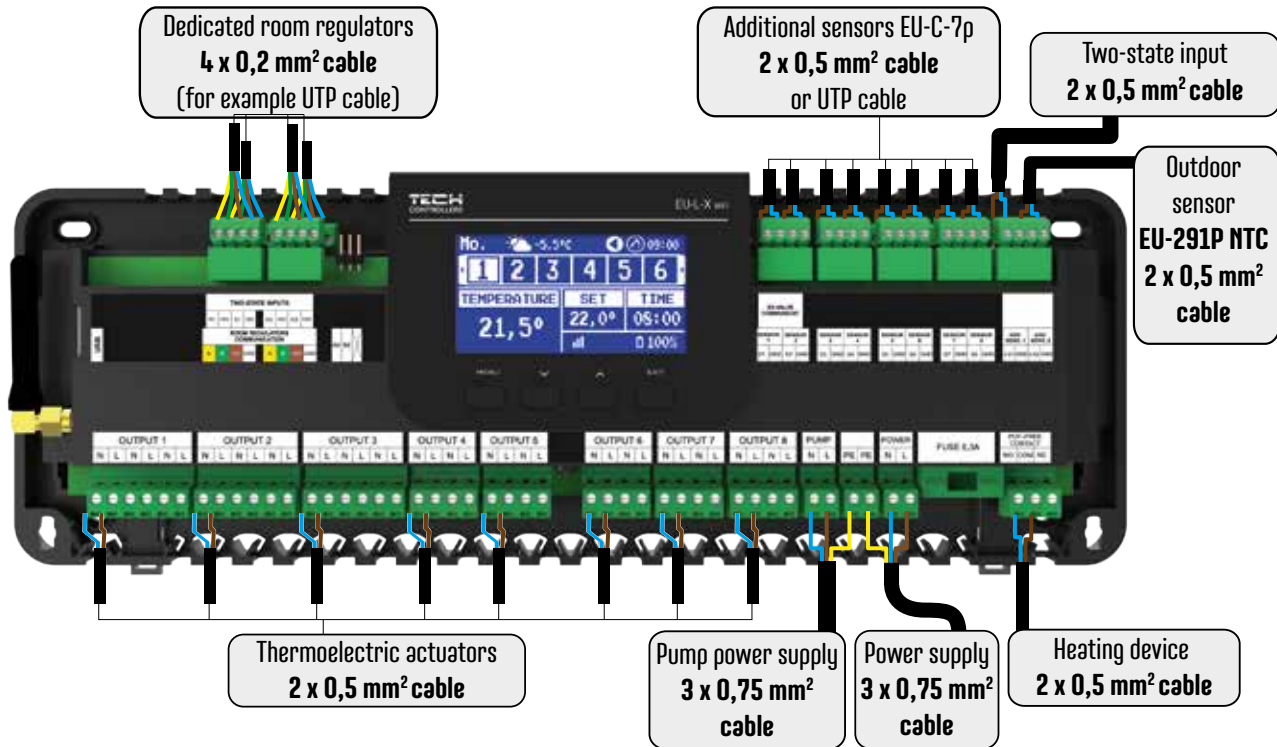
RECOMMENDED CABLE DIAMETERS FOR CONNECTING PARTICULAR SYSTEM MODULES

EU-L-9r - EU-L-10

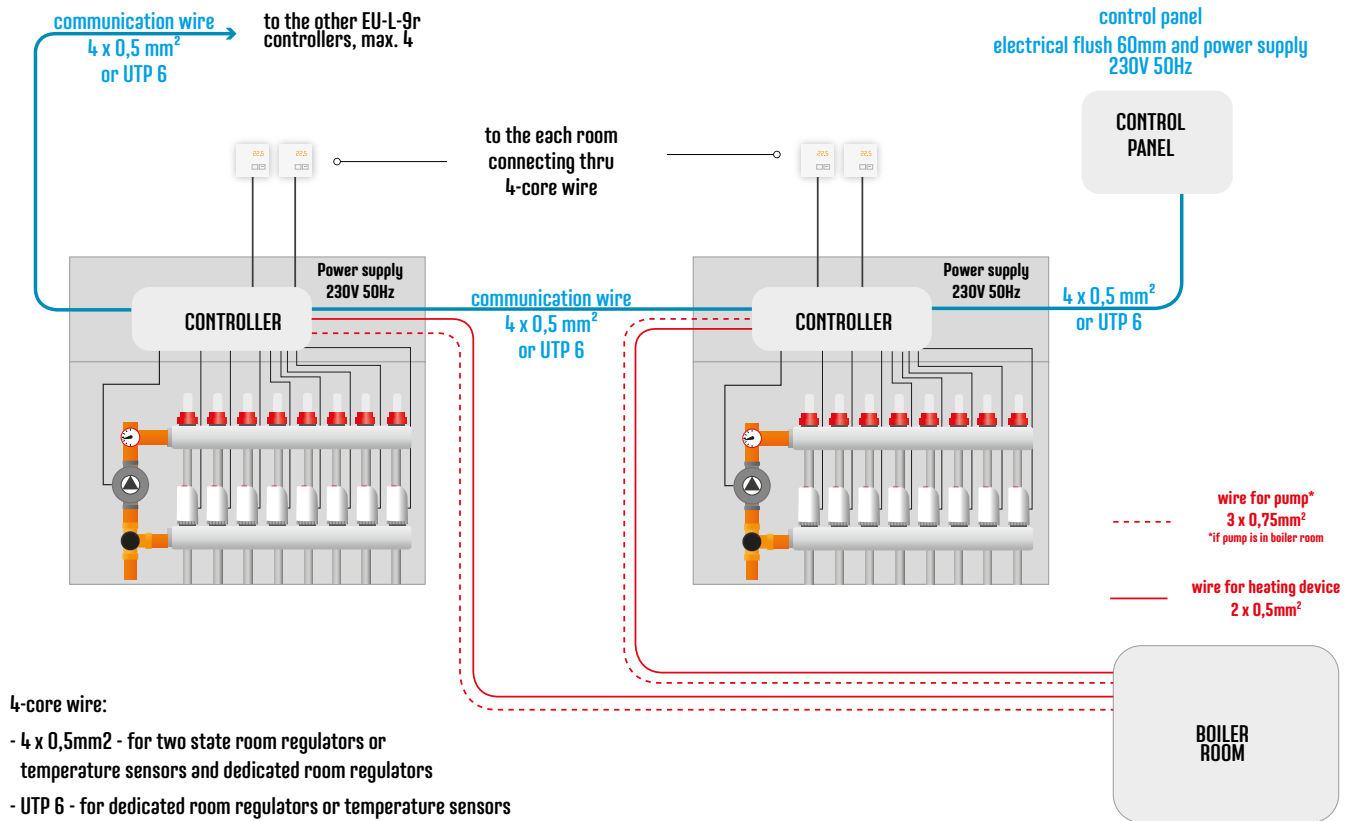


RECOMMENDED CABLE DIAMETERS FOR CONNECTING PARTICULAR SYSTEM MODULES

L-4 X WiFi, L-X WiFi, L-12, ML-12



UNIVERSAL CONNECTING DIAGRAM



4-core wire:

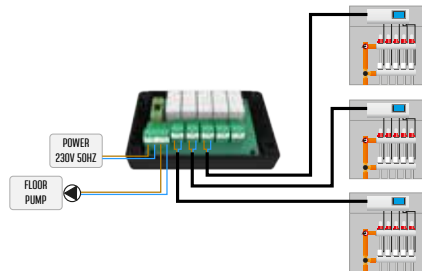
- 4 x 0,5mm² - for two state room regulators or temperature sensors and dedicated room regulators
- UTP 6 - for dedicated room regulators or temperature sensors

Functions:

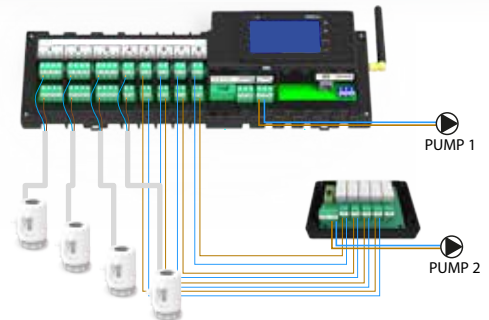
- Integration of 5 voltage inputs, control of one 230V output
- output 230 V
- inputs from 1-5 230V

power / output	230V 50Hz	230V 50Hz
dimensions [mm]	120 x 80 x 40	
output load / fuse	1 A	3,15 A

Integration of pump outputs to start one pump



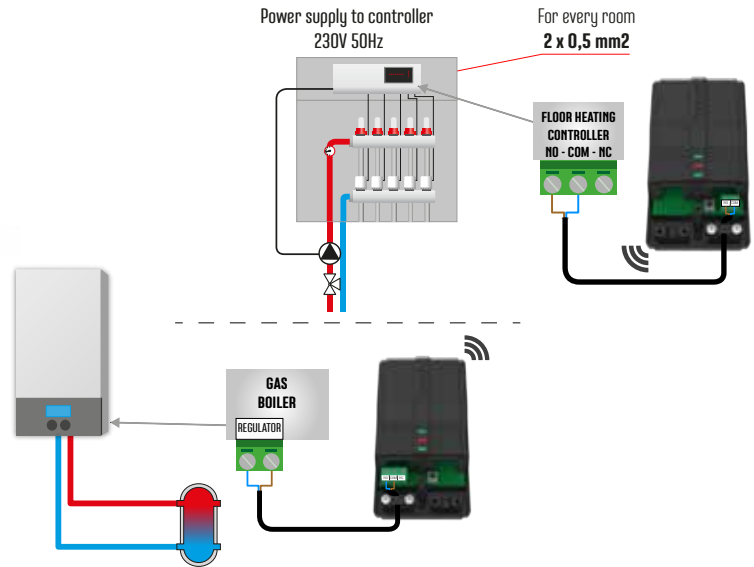
Integration of actuator outputs to start the additional pump





Functions:

- Universal communication set for all models of two-state room regulators



Notes

TECH CONTROLLERS

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