

# THERMOSTATS AND CONTROLS



Catalogue 2022

We are the Czech manufacturing company, established in 1992 in Kuřim. Since the beginning we have focused narrowly on development and sale of household consumer electronics.

The first product of the company was a contactless regulator of lighting, however the most successful product ever was a wireless doorbell.

With a gradual growth of production, demands for working space were increasing. In 2002, the company made a decision to invest in construction of its new object that would meet the actual demands. The construction was finished in autumn 2005.

By putting these new production areas into operation, the company ensured suitable conditions for high-quality, reliable and safe production meeting the current strict legislation. Thus, customers can be pleased with further expansion of the firm's production program.

**Our motto is: "Reliable and quality household products at interesting sale prices."**

Our main customers are mainly supermarkets and wholesale networks with wiring material.

**All products in this catalogue are designed and made in our company in Czech Republic.**



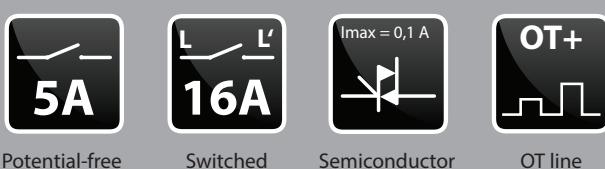
## POWER SUPPLY



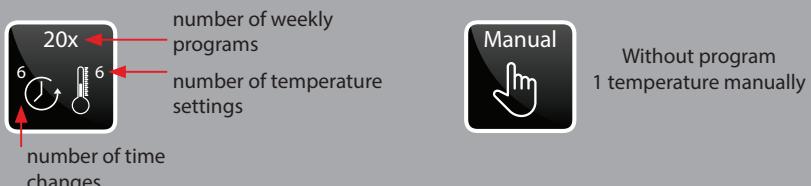
## COMMUNICATION



## OUTPUT



## PROGRAMMING



## REGULATION



## SWITCHING



## REMOTE CONTROL



## REGIME



The product contains functions that comply with  
the Ecodesign 2000/125 / EC standard

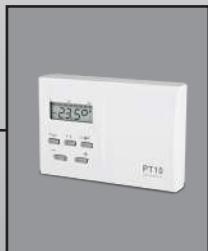
# Our products

## Wire

Electronic  
and digital  
thermostats



**PT01**-page 6



**PT10** -page 10



**PT21**-page 11



**PT22**- page 12  
**PT32**- page 12



**PT23**-page 13

For  
underfloor  
heating



**PT712**-page 14-15

**PT712-EI**-page 14-15



**PT713**-page 14-15

**PT713-EI**-page 14-15



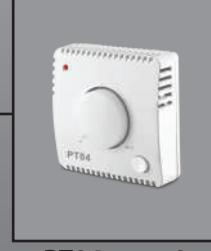
**PT715-EI**-page 16



**PT41-S**-page 52-53

**PT41-M**-page 52-53

For  
electric  
heating



**PT04**-page 8  
**PT04-EI**-page 9



**PT14**-page 17  
**PT14-P**-page 17

For heating  
systems  
controlled by  
thermoelectric  
actuators



**PT14-HT**-page 18  
**PT14-HT-P**-page 18

With OT+  
communic.



**PT52**-page 20-21

With GSM  
module



**PT32 GST**- page 22

With WIFI  
module



**PT32 WiFi**-page 23



**PT14-P WiFi**-page 19

Electronic  
pipe  
thermostat

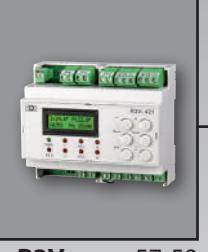


**PT02**-page 7

Controllers  
on DIN rail



**RJ**-page 54-56



**R3V**-page 57-59



**R3V-A1**-page 60



**R3V-A2**-page 61



**R3V-A3**-page 62

# Our products

Wireless  
thermostats



**BT012**-page 25  
**BT013**-page 26



**BT102**-page 27



**BT21**-str.32



**BT22**-page 28  
**BT32**-page 30



**BT23**-page 29



**FRT7B2**-page 31

For  
electric  
heating



**BT010**-page 24



**BT710**-page 33



**BT730**-page 34

With  
OpenTherm  
comm.



**BT52**-page 38



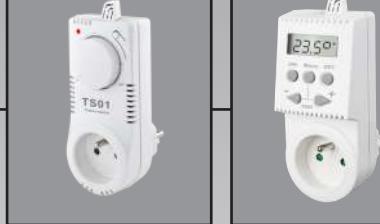
**BT52 WiFi**-page 39

With  
GSM  
module  
With WiFi  
module



**BT32 GST**-page 36  
**BT725 WiFi**-page 37

Thermo  
-switch  
sockets



**TS01**-page 46-47

**TS05**-page 46-47

**TS10**-page 46-47

**TS20**-page 46-47



**TS30**-page 48



**TS11 GST**-page 49

**TS11 WiFi**-page 50

**TS11 WiFi Therm**-page 51

Thermoel.  
heads



**HD13**-page 44-45  
**HD13-L**-page 44-45  
**HD13-P**-page 44-45

# Electronic room thermostat

## PT01

Order Nr.: - 0632



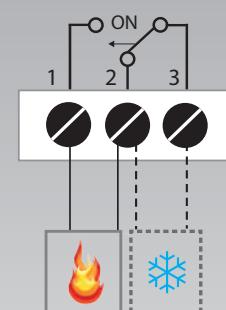
### Description:

- full replacement of bimetal thermostats
- simple operation
- easy wall mounting
- getting the required temperature in range of 11-29 °C
- temperature adjustment in 1 °C increments
- anti-freeze protection (+3 °C)
- indication switching on
- low battery indicator
- TEST mode

### Technical specifications

Power supply	2 x 1,5 V alkal. batteries type AA
Hysteresis	0,3 °C
Number of adjustable temp.	11 to 29 °C
Step of temperature setting	by 1 °C
Measurement accuracy	±0,5 °C
Protection degree	IP20
Output (potential-free contact)	relay, max. 5 A / 250 V AC
Working temperature	0 to 40 °C
Batteries lifetime	3 years

### Scheme:

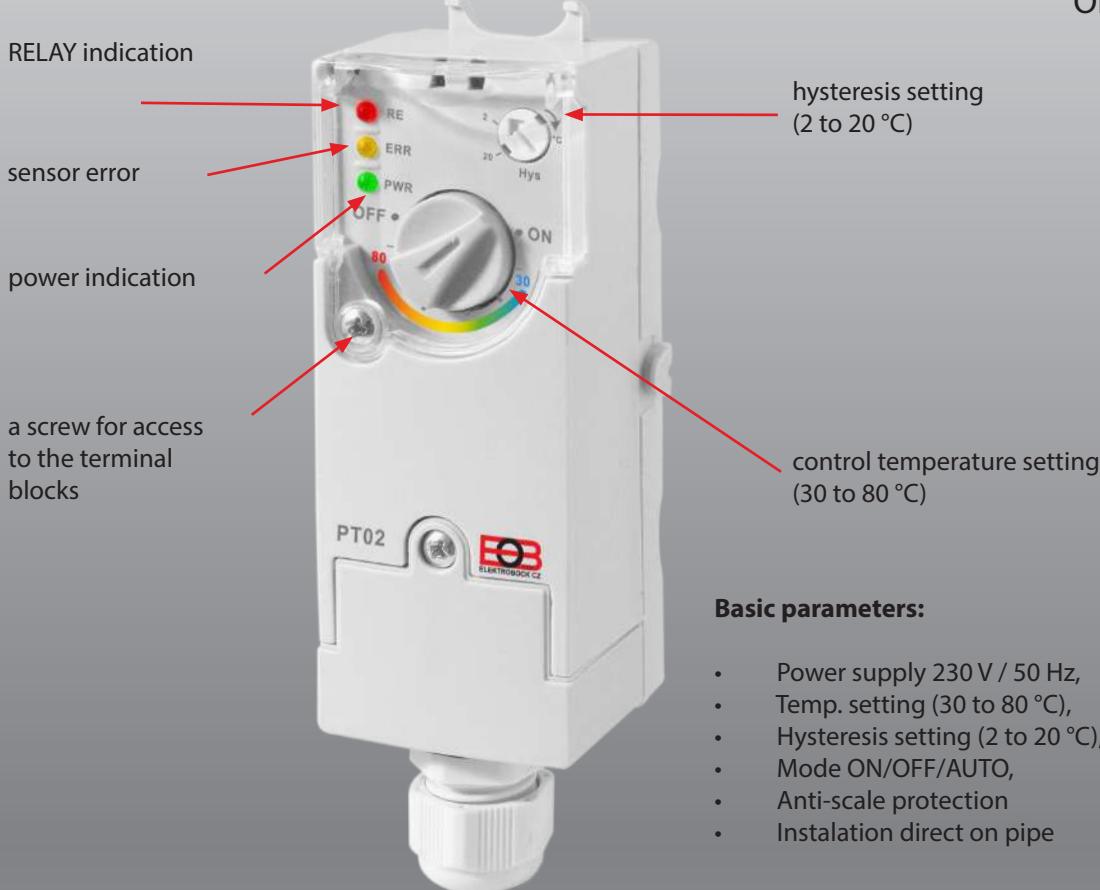


# Electronic pipe thermostat

## Electronic pipe thermostat with ON/OFF function

**PT02**

Order Nr.: - 0646

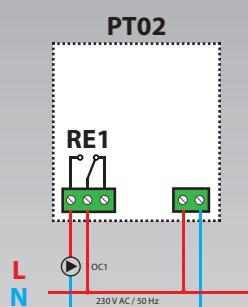


### Basic parameters:

- Power supply 230 V / 50 Hz,
- Temp. setting (30 to 80 °C),
- Hysteresis setting (2 to 20 °C),
- Mode ON/OFF/AUTO,
- Anti-scale protection
- Instalation direct on pipe



### Scheme



### Technical specifications

Power supply	230 V / 50 Hz
Consumption	< 1 W
Type of regulation	Hysteresis (2 to 20 °C)
Dimensions	130 x 39 x 35 mm
Protection degree	IP20
Output type	Relay (potential-free contact), switched
Max. resistive load	10 A (AC1)
Regulation range	30 to 80 °C
Working temperature	0 to 40 °C

## PT04

Order Nr.: 0644

**PT04**



heating indication



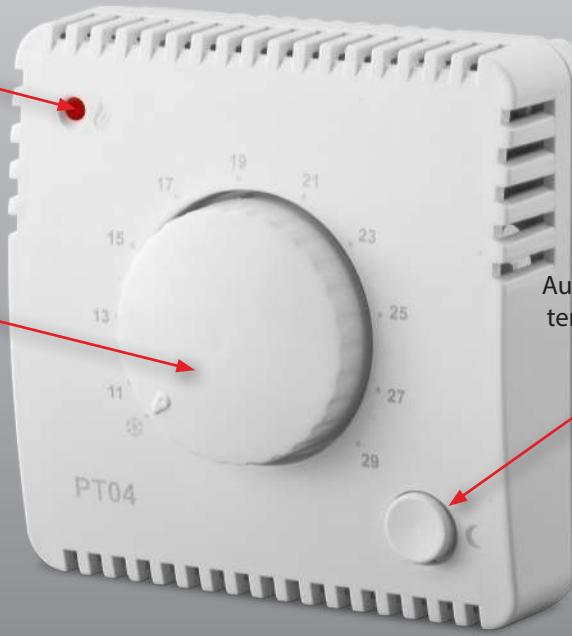
Temp. setting  
※ 11 °C to 29 °C



Automatic night  
temp. damping



0,3 °C  
HYS.

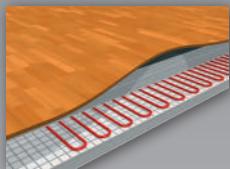


### Description:

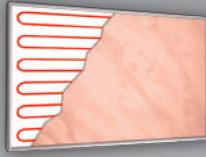
PT04 is the room thermostat designed to control heat sources powered by 230 V AC / 16 A mains. Can be used for e.g.: underfloor heating, infrared heating, etc.



### Underfloor heating



### Electric heating panels



### Electric heating



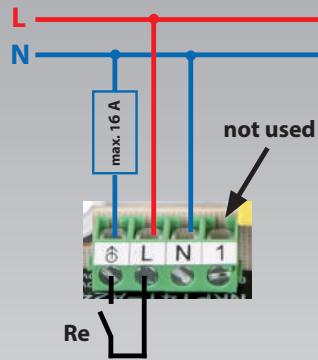
### Electric heating panels



### Technical specifications

Power supply	230 V / 50 Hz
Consumption	< 1 W
Output capacity	230 V AC / 16 A
Output	relay
Night dumping	3 °C / 8 hours
Temp. range	11 to 29 °C
Measurement accuracy	±1 °C
Temp. setting	0,5 °C
Type of regulation	ON / OFF

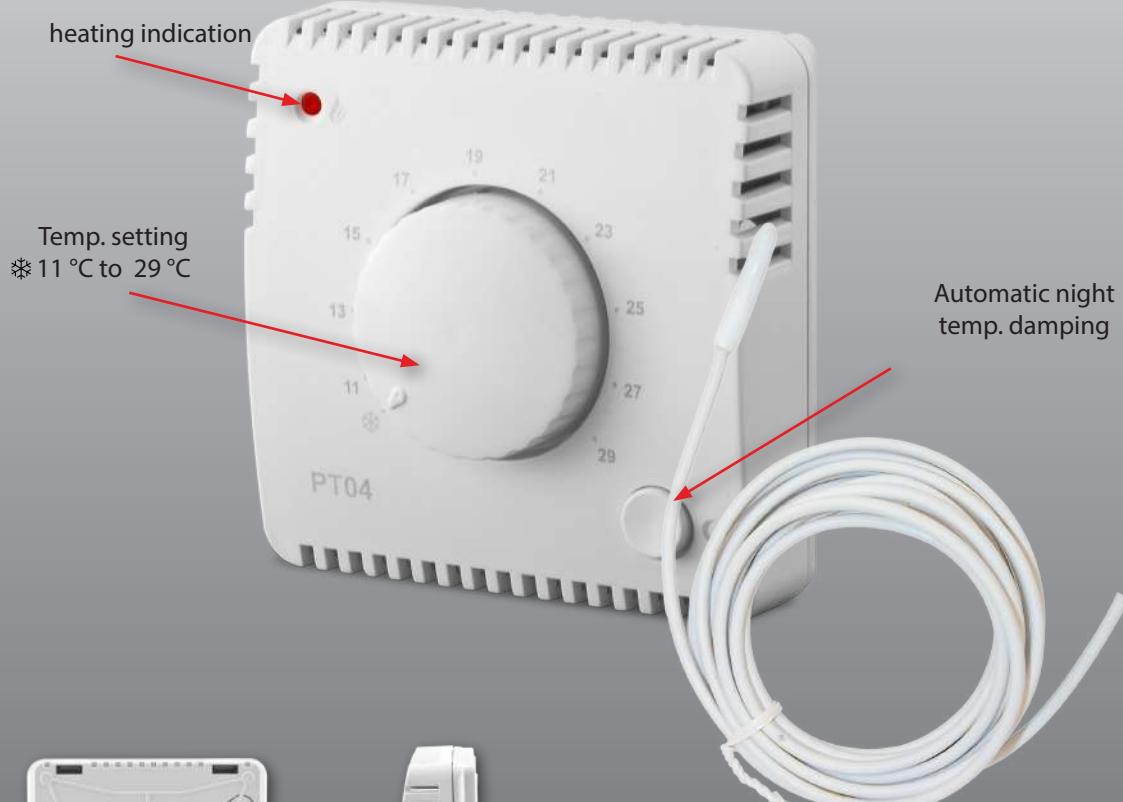
### Wires connection:



**Electronic room thermostats, controlled by microprocessor with external sensor.**

# PT04-EI

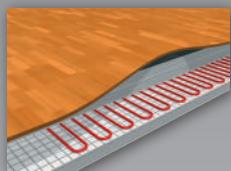
Order Nr.: - 0645



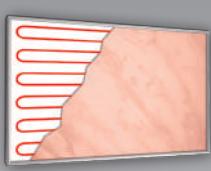
#### Description:

PT04 is the room thermostat designed to control heat sources powered by 230 V AC / 16 A mains. Can be used for e.g.: underfloor heating, infrared heating, etc.

**Underfloor heating**



**Electric heating panels**



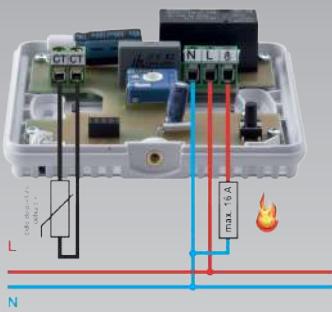
**Electric heating**



**Electric heating panels**



#### Wires connection:



#### Technical specifications

Power supply	230 V / 50 Hz
Consumption	< 1 W
Output capacity	230 V AC / 16 A
Output	relay
Night dumping	3 °C / 8 hours
Temp. range	11 to 29 °C
Measurement accuracy	±1 °C
Temp. setting	0,5 °C
Type of regulation	ON / OFF
External sensor length	1,5 m

## PT10

Order Nr. - 0601

**PT10**



### Description:

- PT10 is digital spatial thermostat for automatic regulation of heating
- Four temperature changes for day
- Anti-freeze temperature 5°C
- Simple control
- Easy installation

### Technical specifications

Power supply	2 x 1,5 V alkal. batteries type AA
Number of adjustable temp.	4 temperature changes for a day
Hysteresis	0,5 °C
Minimal programming time	30 minutes
Range of possible temp.	5 to 39 °C
Step of temperature setting	by 1 °C
Minimal step of indication	0,1 °C
Measurement accuracy	±0,5 °C
Protection degree	IP20
Output (potential-free contact)	relay, max. 5 A / 250 V AC
Working temperature	0 to 40 °C

## Room digital thermostat

# PT21

Order No. - 0621



**Proven quality for years.**

Thermostat, which with its functions, quality and method of control has gained a leading position in the popularity of assembly companies.



### Description:

- The PT21 digital room thermostat offers a wide range of applications for temperature control in homes, offices or workshops
- Possibility to set hysteresis in the range from 0.1 °C to 1.5 °C
- Quick test of correct thermostat and boiler connection - Test function
- Easy setting of hours and day, only with the +/- button
- A different program for each day
- Holiday saving mode (max. Number of days is 99)
- Temperature control by 0.5 °C

### Technical parameters

Power supply	2 x 1.5 V alk. AA type batteries
Number of adjustable temperatures	6 temperature changes per day
Hysteresis	0,1 up to 1,5 °C
Minimum programming time	10 minutes
Adjustable temperature range	5 up to 39 °C
Temperature settings	each 0,5 °C
Minimum indication jump	0,1 °C
Measurement accuracy	±0,5 °C
Degree of protection	IP20
Output (potential-free contact)	relay, max. 5 A / 250 V AC
Operating temperature	0 up to 40 °C



PT21

## PT22

Order Nr. - 0622

## PT32

Order Nr. - 0636



Intelligent room thermostat



### PT22



Room thermostats with a pleasant orange backlit LCD for easy adjustment even in the dark. The weekly program, which allows up to 6 temperature changes each day, meets even the most demanding temperature control requirements. They are suitable for all boilers that require potential-free switching contacts (eg gas boilers, electric boilers, circulating pumps, thermoelectric drives or air conditioning units).



### PT32



#### Parameters of settings

#### PT22



#### PT32



<b>Number of weekly programmes</b>	1	9
<b>Day/ week programming</b>	✓	✓
<b>Number of temperature changes</b>	6	6
<b>Minimal programming time</b>	10 min	10 min
<b>Type of regulation</b>	HYS.	HYS., PI, PID
<b>Range of possible temp.</b>	5 to 39 °C	3 to 39 °C
<b>Step of temperature setting</b>	0,5 °C	0,5 °C
<b>Minimal step of indication</b>	0,1 °C	0,1 °C
<b>Measurement accuracy</b>	±0,5 °C	±0,5 °C
<b>Measured temperature correction</b>	✓	✓
<b>Types of modes</b>	MANU / AUTO / OFF / HOLIDAY	MANU / AUTO / OFF / HOLIDAY
<b>Anti-freeze mode</b>	✓	✓
<b>Automatic SUMMER/ WINTER time change</b>	✓	✓
<b>Preliminary heating start function</b>	✗	✓
<b>Summer mode</b>	✗	✓
<b>Even-odd week selection</b>	✗	✓
<b>Heating / cooling selection</b>	✗	✓
<b>Key lock</b>	✗	✓
<b>Key code protection</b>	✗	✓
<b>Boiler operating hours total</b>	✗	✓
<b>Boiler maintenance indication</b>	✗	✓
<b>EEPROM memory</b>	✓	✓
<b>Preset programm</b>	✓	✓

#### Technical specifications

<b>Power supply</b>	2 x 1,5 V alkal. batteries type AA	2 x 1,5 V alkal. batteries type AA
<b>Battery lifetime</b>	2 heating seasons	2 heating seasons
<b>Output</b>	relay, max. 5 A / 250 V AC	relay, max. 5 A / 250 V AC
<b>Storage temperature</b>	0 to 40 °C	0 to 40 °C
<b>Working temperature</b>	0 to 40 °C	0 to 40 °C

## Room digital thermostat

# PT23

Order Nr.- 0647



PT23

New thermostat with modern design. Algorithm of this thermostat is designed for controlling of gas and electric boilers for warm-water heating. Through transfer circuit breaker can control infrared heating as well. Thanks to touch buttons is easy to use.

### Description:

- preset week program
- programming "day-by-day" or Mon-Fri, Sat-Sun or Mon-Sun
- big backlit graphic display
- navigation in the selected language (CZ / SK / PL / EN / DE / NL)
- adjustable HYSTERESIS
- EEPROM memory for everlasting data saving
- modes MANU / AUTO/ HOLIDAY / OFF
- sound and light indication of buttons
- anti-freeze protection 3 °C
- short-term change in the required temp.
- function for testing of right connection
- automatic SUMMER / WINTER time change
- low battery indication

### Technical specifications

Power supply	2 x 1.5 V alkal. batteries type AA
Number of adjustable temp.	6 temperature changes for a day
Hysteresis	0,1 to 6 °C
Minimal programming time	10 minutes
Range of possible temp.	5 to 39 °C
Step of temperature setting	by 0,5 °C
Minimal step of indication	0,1 °C
Measurement accuracy	±0,5 °C
Degree of protection	IP20
Output (potential-free contact)	relay, max. 5 A / 250 V AC
Working temperature	0 to 40 °C

# PT712

Digital thermostats for electric and hot water underfloor heating

# PT713

Smart thermostat with more features for regulation of underfloor heating

PT712, PT712 EI, PT713 and PT713 EI are digital thermostats with floor and space sensor designed specifically for controlling electrical floor heating (heating cables, mats, foils). It enables regulation according to the room temperature with possible floor temperature monitoring.



PT712



PT713



**"EVEN YOUR PETS SHALL  
APPRECIATE REGULATION OF  
FLOOR HEATING"**



## Basic model of thermostat

**PT712**

Order Nr. - 0615

## Basic model of thermostat, with floor temeprature sensor

**PT712-EI**

Order Nr. - 0616

## Smart thermostat with some extra features

**PT713**

Order Nr. - 0614

## Smart thermostat with floor temperature sensor

**PT713-EI**

Order Nr. - 0617

Parameters of settings	PT712	PT712-EI	PT713	PT713-EI
				
Number of weekly programmes	2		9	
Day/ week programming	✓		✓	
Number of temperature changes	6		6	
Minimal programming time	10 min		10 min	
Type of regulation	HYS.		HYS., PI	
Hysteresis	0,1 to 5 °C		0,1 to 5 °C	
Minimal switch ON period	1 to 5 min		1 to 5 min	
Range of possible temperature	5 to 39,5 °C		5 to 39,5 °C	
Step of temperature setting	0,5 °C		0,5 °C	
Minimal step of indication	0,1 °C		0,1 °C	
Measurement accuracy	±0,5 °C		±0,5 °C	
Measured temperature correction	✗		✓	
Types of modes	MANU / AUTO / OFF / HOLIDAY		MANU / AUTO / OFF / HOLIDAY	
Holiday mode	✓		✓	
Anti-freeze mode	✓		✓	
Automatic SUMMER/ WINTER time change	✓		✓	
Preliminary heating start function	✗		✓	
Open window function	✗		✓	
Even-odd week selection	✗		✓	
Key lock	✗		✓	
Boiler operating hours total	✓		✓	
EEPROM memory	✓		✓	
Clock backup	✓		✓	
Preset programm	✗		✗	
	PT712	PT712-EI	PT713	PT713-EI
External sensor included in the package	✗	✓	✗	✓
Regulation acc. internal sensor (room)	✓	✓	✓	✓
Regulation acc. external (floor) sensor	*	✓	*	✓
Combined regulation of both sensors	*	✓	*	✓
Minimal floor temperature maintaining	*	✓	*	✓
Monitoring of the maximum floor temperature	*	✓	*	✓
Technical specifications				
Power supply	230 V AC		230 V AC	
Input	up to 1 VA		up to 1 VA	
Output	relay max. 12 A		relay max. 12 A	
Output type	potential free		potential free	
Working temperature	0 to 40 °C		0 to 40 °C	

\* An external sensor can be purchased later separately, which results in the thermostat to have the same functions as the EI type

## PT715-EI

Order Nr.: - 0666

**New modern design for a thermostat controlling electric floor heating. Large graphic OLED display and touch buttons for convenient control.**

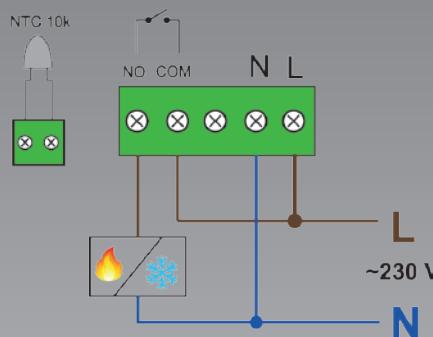
PT715-EI



### Description:

- Weekly program with 6 temperature changes per day
- Modern active organic LED display
- Hysteresis setting option
- Operating modes AUTO/MANU/OFF/HOLIDAY
- Capacitive touch sensing
- Modern design
- Setting of floor temperature limit values
- Fast change of the desired temperature
- Information on operating hours
- Child lock – key locking
- Clock backup in case of a power outage for more than 24 hours
- Simple PLUG-IN installation

**Classic single-phase connection**



### Technical specifications

Power supply	230 V / 50 Hz
Consumption	< 1 W
Number of adjustable temp.	6 temperature changes for a day
Hysteresis	0,1 to 5 °C
Minimal programming time	10 minutes
Range of possible temp.	5 to 39 °C
Temp. setting	0,5 °C
Degree of protection	IP20
Output (potential-free contact)	relay, max. 16 A / 250 V AC
Working temperature	0 to 40 °C
Optional connection of an ext. sensor	type CT04-10k-S
Clock backup	up to 24 hours

# Digital thermostats - for electric heating

This digital spatial thermostat is suitable for households, family houses and offices with electric heating. It can control electric heaters, radiant heaters, infrared heaters or electric floor heating up to 16 A output.

**PT14**

Order Nr. - 0623

Programable version of the thermostat



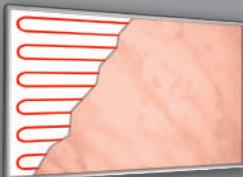
**PT14-P**

Order Nr.- 0628

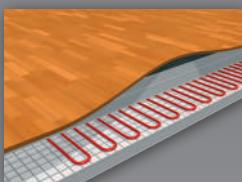
Electric heater



Infrared panel



Underfloor heating



**PT14**



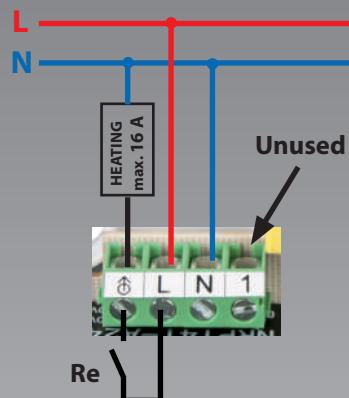
**PT14-P**



## Description:

- Large backlit display
- Easy selection of economic and comfort temperature
- Simple control
- Easy installation
- Range of possible temp. 3 °C to 39 °C

## Example of wiring diagram



## Technical specifications

Power supply	230 V / 50 Hz
Input	1 VA (1 W)
Hysteresis	0,5 °C
Switching element	relay
Adjustable temperature range	3 to 39,5 °C
Temperature setting	in 0,5 °C steps
Minimal indication step	0,5 °C
Measurement accuracy	±1 °C
Degree of protection	IP20
Output (relay)	max. 16 A
Working temperature	0 to 40 °C

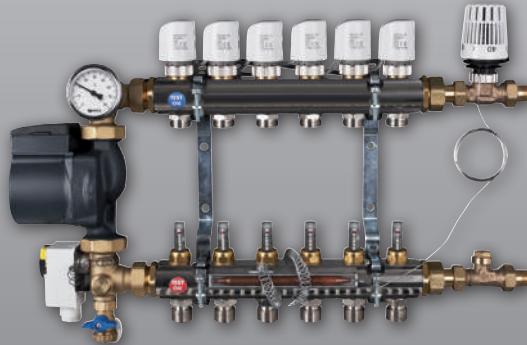
**PT14**

## PT14-HT

Order Nr. - 0624

## PT14-HT-P

Order Nr. - 0629



**PT14-HT**



**PT14-HT-P**



Advantage is fast switching between comfort and economic temperature. The device is equipped with a semi-conductor output which emits no noise, contrary to a relay switching or motors running. The PWM (pulsewidth modulation) function increases the control quality.

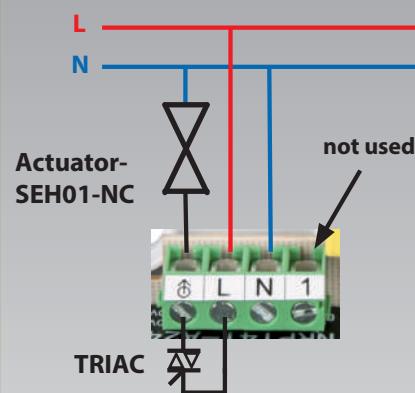
Programmable version of the thermostat



### Technical specifications

Power supply	230 V / 50 Hz
Input	0,5 VA (0,5 W)
Switching element	triac
Protection class	II
Adjustable temperature range	5 to 39,5 °C
Temperature setting	by 0,5 °C
Minimal indication step	0,5 °C
Measurement accuracy	±1 °C
Degree of protection	IP20
Output (semiconductor)	max. 0.1 A, max. 2 pcs of actuators
Working temperature	0 to 40 °C
Regulation	PWM

### Wires connection:



## Room WiFi thermostat

**PT14-P WiFi**

Order No.- 0667

**Description**

- Easy connection to home WiFi network
- MANU / AUTO mode
- Timer function
- AUTO mode - according to the selected program
- In automatic mode up to 16 changes every day.
- Switching up to 16 A (3680 W)
- The set program continues even if the WiFi connection fails
- Applications for iOS, Android and Windows 10 for free download in Czech

**Technical parameters**

<b>Power supply</b>	230 V / 50 Hz
<b>Consumption</b>	1 W
<b>Temperature measurement accuracy</b>	± 2 °C
<b>WiFi communication</b>	802.11 b/g/n, ESP-WROOM-02D
<b>Hysteresis</b>	0.1 up to 6°C
<b>Number of temperature changes</b>	6 temperature changes per day
<b>Minimum program time</b>	10 minutes
<b>Adjustable temperature range</b>	3 up to 39 °C
<b>Temperature settings</b>	each 0.5 °C
<b>Minimum indication jump</b>	0.5 °C
<b>Measurement accuracy</b>	± 1°C
<b>Switching element</b>	max. 16A (relay)
<b>Degree of protection</b>	IP20
<b>Operating temperature</b>	0 up to 40 °C

PT52



## Smart thermostat PT52 with OpenTherm (OT+) communication

# PT52

Order Nr.- 0657



PT52

### Description:

- Digital thermostat for controlling of boilers with OpenTherm (OT+) communication
- Large BACKLIT display and easy controlling
- Intuitive navigation in the selected language (CZ/PL/EN/DE/RU/SK)
- 9 weekly programs for central heating and with temperature changes per day

- Equitherm control with correction according room temperature
- PI regulation
- Preliminary switch-on function with adjustable start
- HOLIDAY mode
- Actual temperature correction
- Summer mode
- Automatic SUMMER/WINTER time changeover

### LIST OF BOILERS, WHICH WE TESTED THE THERMOSAT WITH:

- |             |                   |
|-------------|-------------------|
| • Baxi      | • Quantum         |
| • Geminox   | • Viadrus         |
| • Ferroli   | • Enbra           |
| • Viessmann | • Brilon/Intergas |
| • Dakon     | • ACV/Prestige    |
| • Atak      | • Brötje          |
| • DeDitrich |                   |

### Technical specifications

Power supply	direct, through communication line from boiler
Communication line	twin-lead
Polarity	without polarity
Length	up to 50 m
Min. program. time of C. H.	10 minutes
Adjustable temperature range	3 to 39 °C
Adjustable temperature range C.H.	5 to 85 °C
Min. program. time of H. W.	1 hour
Number of temperature changes	3 times changes per day
Adjustable temperature range H.W.	10 to 65 °C
Hysteresis H.W.	5 °C
Min. indication step	0,1 °C
Number of adjustable temperatures	6 temperature changes per day
Degree of protection	IP20
Working temperature	0 to 40 °C

## PT32 GST

Order Nr. - 0639

**Intelligent thermostat with remote control via mobile phone. A short SMS is possible for example to change the temperature or turn off the boiler.**

PT32 GST



Remote control of thermostat via SMS

Remote control via Android APP and iOS



App PT32 GST can be download FOR FREE on Google Play



App PT32 GST can be download FOR FREE on AppStore



### Description:

- PT32 GST is an intelligent digital room thermostat with an embedded GSM module. It is suitable for all boilers,
- which require potential-free (voltage free) switching contacts (e.g. gas boilers, electric - boilers, circulating pumps, thermoelectric actuators or air conditioning units).
- New PID regulation- principle consists in continuous comparison of the current room temperature with the desired temperature, and automatic adaptation of the controller to the given conditions.
- 9 weekly programs with 6 temperature changes per day
- Programming by 10 minutes and 0.5 °C
- Big backlit graphic display
- Intuitive navigation in the selected language (CZ/PL/EN/DE/RU/SK)
- Possibility of setting HYSTERESIS, PI regulation or PID regulation

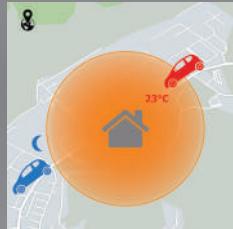
**Intelligent thermostat with remote control from mobile phone, tablet or PC via WIFI.**

## PT32 WIFI

Order Nr. - 0642



**PT32 WiFi**



### GEOLOCATION

From 01.10.2020, this type of thermostat is supplied with a geolocation function for automatic temperature control.

Possibility of controlling via APPs:



Can be downloaded for free on Google Play

Can be downloaded for free on AppStore



### Description:

- PT32 WiFi is room digital thermostat with embedded WiFi module
- It is suitable for all boilers, which require potential-free (voltage free) switching contacts (e.g. gas boilers, electric-boilers, circulating pumps, thermoelectric actuators or air conditioning units).
- New PID regulation- principle consists in continuous comparison of the current room temperature with the desired temperature, and automatic adaptation of the controller to the given conditions.
- 9 weekly programs with 6 temperature changes per day
- Programming by 10 minutes and 0.5 °C
- Big backlit graphic display
- Intuitive navigation in the selected language (CZ/PL/EN/DE/RU/SK)
- Possibility of setting HYSTERESIS, PI regulation or PID regulation

## BT010

Order Nr.- 0608

**BT010 (before BPT010) is a wireless thermostat (transmitter) which, depending on the required room temperature, controls the receiver unit BT001, BT002 or BT003, which switches the connected heating device.**



### Description:

- quick change of the required temperature by the wheel
- night attenuation - night attenuation speed dial button (automatic decrease of 3 ° C for 8 hours)
- frost protection (3 ° C)

### Technical specifications

#### Transmitter

<b>Power supply</b>	2 x 1,5 V alkal. batteries type AA
<b>Communication type</b>	TWO-WAY
<b>Frequency</b>	433,92 MHz
<b>Vf power</b>	< 10 mW
<b>Hysteresis</b>	0,4 °C
<b>Temp. setting range</b>	11 to 29 °C
<b>Temperature setting</b>	by 1 °C (from 11 °C)
<b>Measurement accuracy</b>	±1 °C
Degree of protection	IP20
<b>Working temperature</b>	0 to 40 °C
<b>Night damping</b>	3 °C for 8 hours

**BT012 is a wireless thermostat with system of autodidactic codes, easy control and wall-mounted receiver.**

**BT012**  
Order. Nr. - 0603



**BT012**

## Description:

- Automatic night temperature reduction by 3°C for 8 hours available

## Technical specifications

Transmitter	Receiver
<b>Power supply</b>	2 x 1,5 V alkal. batteries type AA
<b>Communication type</b>	TWO-WAY
<b>Frequency</b>	433,92 MHz
<b>Vf power</b>	< 10 mW
<b>Hysteresis</b>	0,4 °C
<b>Temp. setting range</b>	11 to 29 °C
<b>Temperature setting</b>	by 1 °C (od 11 °C)
<b>Measurement accuracy</b>	±1 °C
Degree of protection	IP20
<b>Working temperature</b>	0 to 40 °C
<b>Night damping</b>	3 °C for 8 hours

## BT013

**BT013 is a wireless thermostat with system of autodidactic codes, easy control and recevier into socket**

Order. Nr- 0613

BT013



Straight-way  
socket

Two-wire  
potential-free  
boiler control

### Description:

- Automatic night temperature reduction by 3°C for 8 hours available

### Technical specifications

Transmitter	Receiver
Power supply	2 x 1,5 V alkal. batteries type AA
Communication type	TWO-WAY
Frequency	433,92 MHz
Vf power	< 10 mW
Hysteresis	0,4 °C
Temp. setting range	11 to 29 °C
Temperature setting	by 1 °C (from 11 °C)
Measurement accuracy	±1 °C
Protection degree	IP20
Working temperature	0 to 40 °C
Night damping	3 °C for 8 hours
Power supply	230 V / 50 Hz
Output	8 A
Switching element	relay
Reach	35 m (in building)
Working temperature	0 to 40 °C

**Simple wireless thermostat with autodidactic learn system.**

# BT102

Order Nr.: - 0602



**BT102**

## Description:

- BT102 is a simple wireless thermostat with system autodidactic of codes
- Used for all types of heating at home, offices or workshops
- The advantage is the possibility of change in the reference room by simply moving the transmitting part, it is possible to achieve optimum thermal comfort in heating
- Possibility setting of 4 temperatures per day
- Power supply of receiver 230 V/ 50 Hz
- Mounted direct on installation box KU/KP68

## Technical specifications

Transmitter	Receiver
Power supply	2 x 1,5V alkal.batteries AA
Communication type	TWO-WAY
Frequency	433,92 MHz
Vf power	< 10 mW
Temperature changes	4 / day
Temp. setting range	5 °C to 39 °C
Temperature setting	by 1 °C
Measurement accuracy	± 0,5 °C
Protection degree	IP20
Working temperature	0 to 40 °C

### BT22

Order Nr. - 0656

### BT22-3-5

Order Nr. - 6791



Version with orange display and case in white colour.

Version with orange display and case in anthracite colour.



#### Description:

- Wireless digital thermostat with a backlit display
- It is designed for automatic control of heating systems in houses and apartment units with their own boiler
- Large backlit display on the transmitter allows control of the thermostat at night.
- Intuitive navigation in the chosen language (CZ/PL/EN/DE/RU/SK)
- 6 temperature changes for each day
- Programming by 10 minutes and 0.5 °C
- Straight-way socket in the receiver (for connecting of further device)

#### Technical specifications

Transmitter	Receiver
Power supply	2x1,5 V alkal.batteries AA
Communication type	TWO-WAY
Frequency	433,92 MHz
Vf power	< 10 mW
Number of set temp.	6 temperature changes
Temp. setting range	5 to 39 °C
Temperature setting	by 0,5 °C
Measurement accuracy	± 0,5 °C
Protection degree	IP20
Working temperature	0 to 40 °C
	Power supply 230 V / 50 Hz
	Output 8 A
	Switching element Relay
	Reach 35 m (in built-up area)

## Wireless thermostat

# BT23 RF

Order Nr.: - 0612



### Description:

- Big, well-arranged and backlit display
- Preset week program
- 6 temperature changes per every day
- Programming by 10 minutes and 0.5 °C
- Programming "day-by-day" or Mon-Fri, Sat-Sun or Mon-Sun
- Adjustable HYSTERESIS (from 0,1°C to 6°C)
- Short-term change of temperature
- Manual mode (MANU)

- Permanent deactivation (OFF)
- HOLIDAY mode
- Antifreeze protection 3 °C
- Connection testing function (TEST)
- Automatic SUMMER/WINTER time changeover
- Receiver power supply 230 V / 50 Hz
- PASS-THROUGH socket on the receiver (for connecting another appliance)
- LED indicator on the receiver
- approx. range 35 m (300 m in open areas)

### Technical parameters

Transmitter	Receiver
<b>Power supply</b>	2 x 1,5 V alkal.battery AA
<b>Type of communication</b>	BIDIRECTIONAL
<b>Frequency</b>	433,92 MHz
<b>RF power</b>	< 10 mW
<b>Hysteresis</b>	0,1 up to 6 °C
<b>Adjustable temperature range</b>	5 up to 39 °C
<b>Temperature settings</b>	each 0,5 °C
<b>Measurement accuracy</b>	±0,5 °C
<b>Degree of protection</b>	IP20
<b>Operating temperature</b>	0 up to 40 °C
<b>Power supply</b>	230 V AC / 50 Hz
<b>Type of communication</b>	BIDIRECTIONAL
<b>Frequency</b>	433,92 MHz
<b>Range in built-up areas</b>	up to 35 m
<b>Free area range</b>	up to 300 m
<b>Sensitivity</b>	< -102 dBm
<b>Output</b>	relay max. 8 A
<b>Degree of protection</b>	IP20
<b>Operating temperature</b>	0 up to 40 °C

## BT32

### BT32

Order Nr. - 0638

### BT32-3-5

Order Nr. - 0664



**Version with orange display and case in white colour.**

**Version with orange display and case in anthracite colour.**



Order Nr.- 0638



Order Nr.- 0664



#### Description:

- Wireless digital thermostat with backlit display offers a wide range of temp. control
- It is designed for automatic control of heating systems in houses and apartment units with their own boiler
- Large backlit display on the transmitter allows control of the thermostat at night
- Intuitive navigation in the chosen language (CZ/PL/EN/DE/RU/SK)
- 9 weekly programmes with 6 temperature changes per day
- Programming by 10 minutes and 0.5 °C
- **Possibility of setting PI regulation or HYSTERESIS**
- Possibility of using GSM module (GST1 or GST2) for control with mobile phone

#### Technical specifications

Transmitter	Receiver
Power supply	2x1,5 V alkal.batteries AA
Communication type	TWO-WAY
Frequency	433,92 MHz
Vf power	< 10 mW
Number of set temp.	6 temperature changes
Temp. setting range	3 to 39 °C
Temperature setting	by 0,5 °C
Measurement accuracy	±0,5 °C
Working temperature	0 to 40 °C
Regulation	HYS., PID,PI

## Wireless thermostat

## FRT7B2

Order Nr.: - 6703



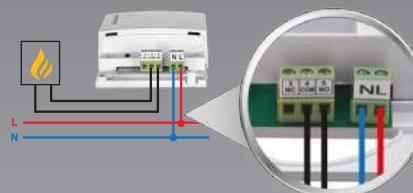
Order Nr.: - 6702



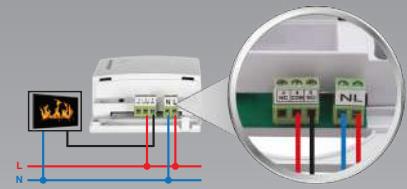
FRT7B2

**Description:**

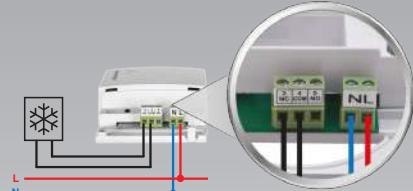
- clear backlit LCD
- 30 m range in a house
- 200 m range in an open area
- automatic daylight saving time
- modes MANU / AUTO / OFF / HOLIDAY
- temporary change of the desired temperature (PARTY)
- pre-set weekly program
- option to program per day or Mon–Fri, Sat–Sun and Mon–Sun
- 6 changes per day
- WINDOW function – decreases heating when temperature drops
- programming in 10 minute and 0.5 °C increments
- control range 5 to 39 °C
- setting option HYSTERESIS 0.1 to 6 °C
- temperature adjustment in 0.5 °C increments
- measurement accuracy  $\pm 0.5$  °C
- anti-freeze protection (3 °C)
- digital signal coding
- powered by 2 alkaline AAA 1.5 V batteries  
**(batteries not included)**



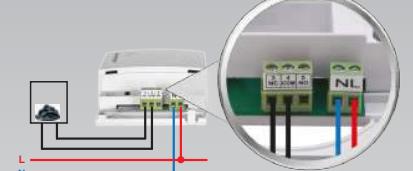
Boiler control



Electric heating control



Air-conditioning control



Solid-fuel boiler control

**Wide application in temperature control in homes and offices or workshops**

# BT21

Order Nr. - 0610

**BT21**



Through  
socket

Two-wire  
potential-free  
boiler control

## Description:

- Wireless digital thermostat BT21, which offers you a wide range of applications in temperature control in households, offices or workshops
- It is used for all types of heating
- You can freely transfer the thermostat
- Hysteresis setting (from 0.1 ° C to 1.5 ° C)
- Receiver power supply at 230 V / 50 Hz
- Through socket at the receiver (for connecting another appliance)
- Range approx. 35 m
- Simple operation and programming

## Technical parameters

Transmitter	Receiver
<b>Power supply</b>	2 x 1,5 V alkal.bettery AA
<b>Type of communication</b>	BIDIRECTIONAL
<b>Frequency</b>	433,92 MHz
<b>RF power</b>	< 10 mW
<b>Number of adjustable temperatures</b>	6 temperature changes
<b>Adjustable temperature range</b>	5 up to 39 °C
<b>Temperature settings</b>	each 0,5 °C
<b>Measurement accuracy</b>	± 0,5 °C
Protection degree	IP20
<b>Operating temperature</b>	0 up to 40 °C
<b>Power supply</b>	230 V / 50 Hz
<b>Max. Switching current</b>	8 A
<b>Switching element</b>	relay
<b>Range</b>	35 m (built-in area)
<b>Operating temperature</b>	0 up to 40 °C

BT710-X-X are supplied with various colour combinations of plastics and LCD

## BT710-1-1

Order. Nr. - 6792



## BT710-3-1

Order. Nr. - 6793



## BT710-1-5

Order. Nr. - 6790



## BT710-3-5

Order. Nr. - 6794



Example of controlling of 3 infrared panels in one room by one thermostat:

BT003



BT002



BT001



BT710



### Technical specifications

Transmitter	
Power supply	2x1,5 V alkal.batteries AAA (not included)
Communication type	TWO-WAY
Frequency	433,92 MHz
Vf power	< 10 mW
Hysteresis	0,2 °C
Number of adjustable tempereatures	6 temperature changes per day
Minimum program. time	10 minutes
Adjustable temp. range	5 °C to 39 °C (anti freeze 3 °C)
Temperature setting	by 0,5 °C
Minimum indication step	0,1 °C
Measurement accuracy	±0,5 °C

White / Black holder according colour  
of thermostat BT710-x-x

## BT730

Order.-Nr.- 6730



### Description:

- backlit display with touch buttons and press light
- controls up to 9 receivers BT001, BT002 (2A), BT003, BT005 or PH-BP1-P9
- 7 weekly programs with 6 temperature changes per day
- modes: AUTO / MANU / OFF / HOLIDAY
- fast change of the required temperature
- possibility to program day after day or in blocks Mon-Fri, Sat-Sun, Mon-Sun
- operating hours information
- child lock - key lock
- the option to change the required temperature even when the keys are locked
- choice of automatic changeover to SUMMER / WINTER time
- „WINDOW OPEN“ function (automatic heating switch-off during ventilation)
- possibility to set the current temperature correction
- low battery indication
- frost protection (3 ° C)

### Technical specifications

Transmitter	
Power supply	<b>2x1,5 V alkal.batteries AA (not included)</b>
Communication type	TWO-WAY
Frequency	433,92 MHz
Vf power	< 10 mW
Hysteresis	0,2 °C
Number of adjustable tempereatures	6 temperature changes per day
Minimum program. time	10 minutes
Adjustable temp. range	5 °C to 39 °C (anti freeze 3 °C)
Temperature setting	by 0,5 °C
Minimum indication step	0,1 °C
Measurement accuracy	±0,5 °C



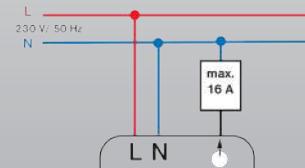
## BT001

Order Nr.- 0606

It switches the connected device according to the information received from the transmitting unit. Its great advantage is direct installation into the wiring box.

BT001 is suitable for switching heating panels, direct heaters, radiant panels, heating mats, etc.

**Communicate with all transmitters tagged BT.**

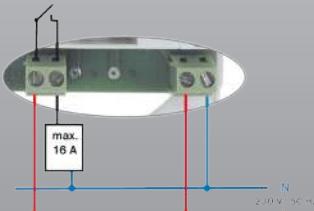


## BT002

Order Nr. - 0604

It switches the connected device according to the information received from the transmitting unit. BT002 is suitable for switching heating panels, direct heaters, radiant panels, heating mats, etc.

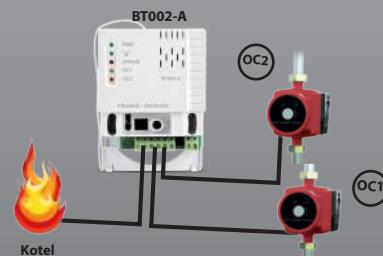
**Communicate with all transmitters tagged BT.**



## BT002-A

Order Nr. - 0609

It controls 2 independent zones and heating source (boiler).



## BT003

Order Nr. - 0607

BT003 is used for switching the heating device in connection with the thermostats.

**Communicate with all transmitters tagged BT.**



The appliance connects to the switching socket in the device.



## BT005

Order Nr.- 0519

BT005 is designed for switching a heating device in connection with thermostats.

**Communicate with all transmitters tagged BT.**



Straight-way  
socket

Schwitching output

All receivers BT00x are equipped with a code self-learning system and the E-EPROM memory which saves the code stored even in the event of voltage failure.

**Receivers are compatible with all transmitters BT serie.**

## BT32 GST

Order-Nr.: 0641



controlling via SMS  
with APP for Android  
and iOS



DOWNLOAD for free on  
Google Play



DOWNLOAD for free on  
AppStore



**A unique wireless thermostat that can be controlled  
remotely via SMS messages from your mobile phone.**



Straight-  
way  
socket

### Description:

- Enable to change the required temperature or change the mode by meaning from mobile phone
- Big, well-arranged and backlit display
- 9 weekly programs
- 6 temperature changes per every day
- Possibility of setting HYSTERESIS, PI regulation or PID regulation
- Possibility of connecting an external temp. sensor
- Receiver with the CODE SELF-LEARNING system and E-EPROM memory
- Two-wire connection to the boiler (potential-free contact)

### Technical specifications

Transmitter	Receiver
Power supply	5 V DC, 2,5 A, typ AD05 - Jack
GSM Module	SIM900
HF performance	< 10 mW
Number of set temp.	6 per day
Hysteresis	0,1 °C to 6 °C
Min. program. time	10 minutes
Temp. setting range	3 to 39 °C
Temperature setting	in 0,5 °C steps
Measurement accuracy	±0,5 °C
Working temperature	0 to 40 °C

**Control your household heating from anywhere in the world. Via an application the controller simplifies the device settings. The thermostat remains fully functional even in the event of a Wi-Fi outage.**



## Description:

- 9 weekly programs
- 6 temperature changes per day
- programming in 10 minute and 0.5 °C increments
- option to program per day or Mon–Fri, Sat–Sun and Mon–Sun
- portable battery transmitter
- setting options **HYSTERESIS**, **PI control** or **PID control**
- early heating activation function
- mode selection HEATING / COOLING
- temporary change of the desired temperature
- manual mode (MANU)

- permanent deactivation (OFF)
- **HOLIDAY** mode
- summer mode
- even/odd week selection
- correction of current temperature
- key lock
- boiler maintenance indication
- anti-freeze protection (3 °C)
- **TEST** function
- daylight saving time selection
- boiler output on the receiver (potential-free contact)
- max. 8 A / 250 V AC

FREE app for Android  
Windows 10

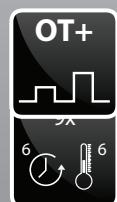
FREE app for Android iOS

FREE app for Android



## BT52

Order Nr.: - 6652



- The possibility of placing the thermostat (transmitter) as needed.
- Anticipating system (intelligent timer) guarantees the required temperature at the desired time.
- Adaptive controller evaluates temperature gradient room and is able to determine the time necessary to achieve the desired temperature.
- Choice of type of regulation: equitherm control, equitherm control with correction according to room temperature, PI regulation.

- 9 weekly programs for central heating (with 6 temperature changes per day).
- 1 weekly program for hot domestic water (with 3 temperature changes per day).
- E-EPROM memory retains all settings even during power outages.
- Can be controlled via GSM module GST1 or GST2 (commercially available).
- Automatic switching to summer/winter time.

### LIST OF BOILERS WE TESTED WITH THE THERMOSTAT

- |             |             |                   |
|-------------|-------------|-------------------|
| • Baxi      | • Atak      | • Brilon/Intergas |
| • Geminox   | • DeDitrich | • ACV/Prestige    |
| • Ferroli   | • Quantum   | • Brötje          |
| • Viessmann | • Viadrus   |                   |
| • Dakon     | • Enbra     |                   |

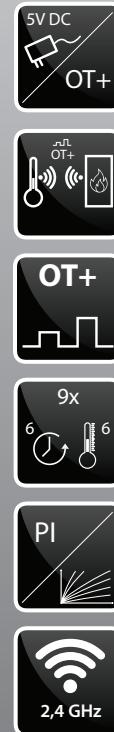
### Technical specifications

Transmitter	Receiver
Power supply	2x1,5 V alkal.batteries AA
Communication type	TWO-WAY
Frequency	433,92 MHz
Vf power	< 10 mW
Number of set temp.	6 temperature changes
Temp. setting range	3 to 39 °C
Temperature setting	by 0,5 °C
Measurement accuracy	±0,5 °C
Protection degree	IP20
Working temperature	0 to 40 °C
	Power supply directly via comm. line OT from boiler
	Communication line twin-lead, without polarity, max. 50 m
	Degree of protection IP20
	Operating temperature 0 to 40 °C

## Wireless OpenTherm thermostat with WiFi module

# BT52 WiFi

Order Nr.: 0665



### Description:

- 9 weekly programs
- 6 temperature changes per day
- programming after 10 minutes and 0.5 °C
- possibility of programming by day or Mon-Fri, Sat-Sun and Mon-Sun
- large clear backlit graphic display
- possibility to set Equithermal or PI regulation
- premature heating on function
- short-term change in the required temperature
- manual mode (MANU)
- permanent OFF

- HOLIDAY mode
- summer mode
- even-odd week option
- key lock
- sum of operating hours of the boiler
- boiler maintenance indication
- frost protection (3 °C)
- TEST function
- option to change SUMMER / WINTER time
- service password

### LIST OF BOILERS WE TESTED WITH THE THERMOSTAT

- |             |             |                   |
|-------------|-------------|-------------------|
| • Baxi      | • Atak      | • Brilon/Intergas |
| • Geminox   | • DeDitrich | • ACV/Prestige    |
| • Ferroli   | • Quantum   | • Brötje          |
| • Viessmann | • Viadrus   |                   |
| • Dakon     | • Enbra     |                   |

### Technical specifications

Transmitter	Receiver
Power supply	5V / DC, 2,5 A
Communication type	BIDIRECTIONAL
Frequency	433,92 MHz
Vf power	< 10 mW
Number of set temp.	6 temperature changes
<b>Adjustable temperature range</b>	3 to 39 °C
Temperature setting	by 0,5 °C
Measurement accuracy	±0,5 °C
Protection degree	IP20
Working temperature	0 to 40 °C
<b>Range</b>	200m in the open area, 25m in the development

# Overview of wire thermostats

## Wire

WIRED	PT01	PT04 PT04-EI	PT10 PT11	PT14 PT14-HT	PT22 PT23	PT32	PT52	PT712	PT713
									
Type of regulation	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF	ON/OFF
Output	relay potential-free	relay 230 VAC/16 A	relay potential-free	relay 230 VAC/16 A	relay potential-free	relay potential-free	OT+	relay potential-free	relay potential-free
Equitherme regulation	✗	✗	✗	✗	✗	✗	✓	✗	✗
Regulation type	HYS.	HYS.	HYS.	HYS.	HYS.	HYS., PID, PI	PI / Eqv.	HYS.	HYS., PI
Power supply	2x 1.5V AA	230V/50Hz	2x 1.5V AA	230V/50Hz	2x 1.5V AA	2x 1.5V AA	OT LINE	230V / 50 Hz	230V / 50 Hz
Preliminary switch on	✗	✗	✗	✗	✗	✗	✓	✗	✓
Hysteresis	0.3 °C	0.3 °C	0.1 °C	0.3 °C	0.1 °C - 6 °C	0.1 °C - 6 °C	5 °C pro domestic water	0.1 °C - 5 °C	0.1 °C - 5 °C
Temperature range	11 °C to 29 °C	9 °C to 29 °C	5 °C to 39 °C	3 °C to 39,5 °C	3 °C to 39 °C	3 °C to 39 °C	3 °C - 39 °C	5 °C - 39,5 °C / 99 °C	5 °C - 39,5 °C / 99 °C
Minimal indication	✗	✗	0.5 °C	0.1 °C	0.1 °C	0.1 °C	0.1 °C	0.1 °C	0.1 °C
Min. programmable time	✗	✗	30 min.	✗	10 min.				
Measurement accuracy	±0,5 °C	±1 °C	±0,5 °C	±1 °C	±0,5 °C	±0,5 °C	±0,5 °C	±0,5 °C	±0,5 °C
Temperature correction	✗	✗	✗	✗	✗	✓	✓	✗	✓
Temperature changes/day	✗	✗	4	0	6	6	6	6	6
Programme	✗	✗	daily/ weekly	✗	daily/ weekly				
Temperature count	1	1	2	1	6	6	6	6	6
Copying of days by programming	✗	✗	✗	✗	✓	✓	✓	✓	✓
Holiday mode	✗	✗	✗	✗	✗	✗	✗	✗	✗
Short time temperature change	✗	✗	✗	✗	✗	✗	✗	✗	✗
Aut. change winter / summer time	✗	✗	✗	✗	✗	✗	✗	✗	✗
Even / odd week change	✗	✗	✗	✗	✗	✗	✗	✗	✗
Calendar	✗	✗	✗	✗	✗	✗	✗	✗	✗
Boiler maintenance-indication	✗	✗	✗	✗	✗	✗	✗	✗	✗
Data backup by battery change	-	-	about 20 s	✗	∞	∞	∞	∞	∞
EEPROM memory permanent backup	✗	✗	✗	✗	✓	✓	✓	✓	✓
Possibility of connection of external sensor	✗	only by version PT04-EI	✗	✗	✗	✗	✗	✗	✗
Backlit LCD	✗	✗	✗	✗	✗	✗	✗	✗	✗

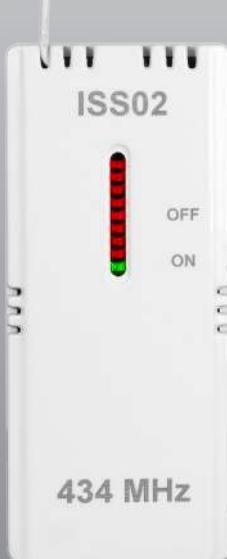
# Overview of wire thermostats

FUNK	BT102	BT012	BT013	BT22	BT23 RF	BT32	BT52	BT710	BT730
<b>Receiver</b>									
<b>Power supply</b>	230V / 50 Hz	230V / 50 Hz	230V / 50 Hz	0V+	230V / 50 Hz				
<b>Sensitivity</b>	≤95 dBm	≤95 dBm	≤95 dBm	≤102 dBm	≤102 dBm	≤102 dBm	≤102 dBm	≤95 dBm	≤95 dBm
<b>Reach</b>	~30 m	~30 m	~30 m	~35 m	~35 m	~35 m	~35 m	~30 m	~30 m
<b>Output</b>	16 A / 250 VAC	16 A / 250 VAC	8 A / 250 VAC	8 A / 250 VAC	8 A / 250 VAC	8 A / 250 VAC	Data	16 A / 250 VAC	16 A / 250 VAC
<b>Transmitter</b>									
<b>Power supply</b>	alkaline batteries 2 x 1,5V AA	alkaline batteries 2 x 1,5V AA	alkaline batteries 2 x 1,5V AA	alkaline batteries 2 x 1,5V AAA	alkaline batteries 2 x 1,5V AA				
<b>Batteries included in the package</b>	NO	YES	NO	YES	YES	YES	YES	NO	NO
<b>Backlit display</b>	✗	✗	✗	✗	✗	✗	✗	✓	✓
<b>Temperature changes/day</b>	2	-	-	6	6	6	6	6	6
<b>Type of communication</b>	TWO-WAY	TWO-WAY	TWO-WAY	TWO-WAY	TWO-WAY	TWO-WAY	TWO-WAY	TWO-WAY	TWO-WAY
<b>Frequency 433,92 MHz</b>									
<b>Vf performance</b>	< 10 mW	< 10 mW	< 10 mW	< 10 mW	< 10 mW				
<b>Pi regulation</b>	✗	✗	✗	✗	✗	✗	✗	✗	✗
<b>Preliminary switch on</b>	✗	✗	✗	✗	✗	✗	✗	✗	✗
<b>Equitherme regulation</b>	✗	✗	✗	✗	✗	✗	✗	✗	✗
<b>Hysteresis</b>	0,5 °C	0,4 °C	0,4 °C	0,1 °C ~ 6 °C	0,1 °C ~ 6 °C	0,1 °C ~ 6 °C	0,1 °C ~ 6 °C	5 °C for DW	0,2 °C
<b>Temperature range</b>	5 °C ~ 39 °C	11 °C ~ 29 °C	11 °C ~ 29 °C	5 °C ~ 39 °C	5 °C ~ 39 °C	3 °C ~ 39 °C	3 °C ~ 39 °C	5 °C ~ 39 °C	0,1 °C ~ 6 °C
<b>Minimal indication step</b>	0,1 °C	✗	✗	0,1 °C	0,1 °C	0,1 °C	0,1 °C	0,1 °C	0,1 °C
<b>Min. programming time</b>	30 min	✗	✗	10 min	10 min	10 min	10 min	10 min	10 min
<b>Measurement accuracy</b>	±0,5 °C	±1 °C	±1 °C	±0,5 °C	±0,5 °C	±0,5 °C	±0,5 °C	±0,5 °C	±0,5 °C
<b>Copying of days</b>	✓	✗	✗	✓	✓	✓	✓	✓	✓
<b>Holiday mode</b>	✗	✗	✗	✗	✗	✗	✗	✗	✗
<b>Short term temperature change</b>	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>Aut. change summer/winter time</b>	✗	✗	✗	✗	✗	✗	✗	✗	✗
<b>Odd / even week setting</b>	✗	✗	✗	✗	✗	✗	✗	✗	✗
<b>Calendar</b>	✗	✗	✗	✗	✗	✗	✗	✗	✗
<b>Boiler maintenance indication</b>	✗	✗	✗	✗	✗	✗	✗	✗	✗
<b>Data back by power failure</b>	about 25 s	✗	✗	✗	✗	✗	✗	✗	✗
<b>Possibility of ext. sensor</b>	✗	✗	✗	✗	✗	✗	✗	✗	✗
<b>Possibility of GSM module</b>	✗	✗	✗	✗	✗	✗	✗	✗	✗

Wireless

# ISS02

Order Nr.: - 9001

**ISS02**

Green LED lit. No signal from transmitter, even from interference source.

Only green LED + 3 reds lit. Weak signal from transmitter, which can be by units with FSK communication already processed.

Only green LED + 4 and more reds lit. Good signal from transmitter.

Green LED + 7 and more reds lit. Very good signal from transmitter.

## Thermoelectric actuator

# SEH01-NC

Order Nr.: - 0030

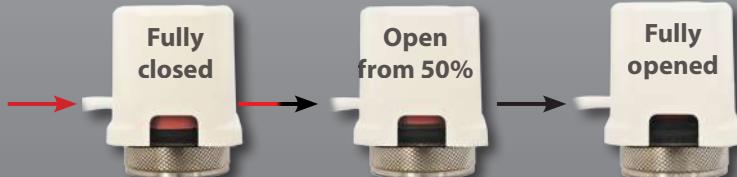


It is intended for control of radiator valves as well as zone valves of the floor heating distributors. Its advantage is noiseless running and long service life.

SEH01-NC is a thermoelectric actuator operating on principle of thermal expansion. When the actuator body is heated by electric current flow, expansion occurs resulting in the valve to open and vice versa. When being cooled down, it closes. Only 1.8 W is sufficient for the valve to open.



SEH01-NC is equipped with open state indication.



SEH01-NC

# HD13

## Digital radiator head

The new thermostatic heads with a large backlit\* LCD are intended for temperature regulation in rooms with the hot water radiator system. New and improved functions of this product, such as the preset program, 8 programmable temperature changes every day, indication of an opened window, Boost function and freeze protection, result in a perfect tool for heating regulation at a favourable price.

\*Backlit LCD only for HD13-L and HD13-Profi

This head is manufactured in three versions that differ from each other in a backlit LCD and functions:

### HD13

Order Nr.: - 0163

### HD13-L

Order Nr.: - 0174

### HD13-Profi

Order Nr.: - 0175



# Digital radiator heads

In developing the new HD13 digital head, we considered all the customers' experience and requirements we obtained during production and sales of previous versions HD10 and HD20. The new HD13 head has a large backlit LCD with a greater number of display segments. The LCD alternates data giving information on current regulation status, such as required temperature, opening percentage and time. This head is currently the smallest one on market and thus it does not take too much space at a radiator. Suitable location of the LCD and controls enables easier control.

Thus, when watching or adjusting the head, you don't have to go down to the head, or use a mirror as in case of other types. The head is equipped, as the previous types, with a quick-removable cover you appreciate for example during replacement of batteries. However, the special attention was paid to noise of a transmission mechanism. The motor mounting in a silentblock reduces noise to the lowest possible level.

TECHNICAL SPECIFICATIONS	HD13	HD13-L	HD13-PROFI
Backlit display	✗	✓	✓
For each day a different temperature program	✓	✓	✓
Temperature levels	2	2	6
Temperature changes per day	8	8	6
Minimal programming time	30 minutes	30 minutes	10 minutes
Temp. setting range	3 °C to 39 °C	3 °C to 39 °C	3 °C to 39 °C
Min. indicative leap	0.1 °C	0.1 °C	0.1 °C
Setting temperature	0.5 °C	0.5 °C	0.5 °C
Setting temperature	✓	✓	✓
Short-term change of temperature	✓	✓	✓
Valve opening indication in %	✓	✓	✓
Function OFF	✓	✓	✓
Function BOOST*	✓	✓	✓
Protection against lime (ASS 5)	✓	✓	✓
Automatic change summer/winter time	✓	✓	✓
Frost protection	✓	✓	✓
Open window function	✓	✓	✓
Adjustable parameters in Open window function	✗	✗	✓
Low battery indication	✓	✓	✓
Manual controlling of valve	✓	✓	✓
Backup of time by battery change	✓ 15 s	✓ 15 s	✓ 15 s
EEPROM memory	✗	✗	✓
Preliminary heating start function	✗	✗	✓
Key lock	✗	✗	✓
External sensor connector	✗	✗	✓
Connector for external power supply	✗	✗	✓
Summer mode	✓	✓	✓
Connecting nut	plastic	plastic	metal
Consumption	10 µA emergency stand 30 mA by activ motor	10 µA emergency stand 30 mA by activ motor	10 µA emergency stand 30 mA by activ motor
<b>Delivered batteries</b>	2 x 1,5 V AA alkalic	2 x 1,5 V AA alkalic	2 x 1,5 V AA Lithium

\*BOOST Function - after activation the valve will be open for 100 % for 5 minutes.

## Reduction:

HD13 are designed to be mounted on standard valves M30x1,5mm. For other types of valves we produce following reductions.



Herz



Myjava



Giacomoni



Coterm



Danfoss



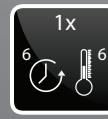
Danfoss RTD



HD13  
HD13-L



HD13-P



HD13

TS

## TS01

Order Nr.: - 0154

## TS05

Order Nr.: - 0170

## TS10



Order Nr.: - 0151

## TS20



Order Nr.: - 0150



TS01  
TS05



TS10



TS20



TS01



TS05  
TS10



TS20



TS01  
TS05



TS20



### Thermo switch sockets

There are produced four versions with different features.



# Thermo switched sockets

## Advantages of TS20:

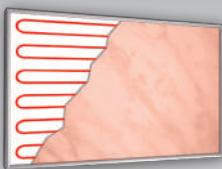
- for every day can be the other programme
- three temperature levels (comfort, economic, party)
- adjustable HYSTERESIS (from 0,1°C to 6°C)
- easy controlling and programing
- short-term change of temperature
- function OFF
- regulation by 0,5°C
- well-arranged display
- back-up battery



Settings specifications	TS01	TS05	TS10	TS20
For each day different program	✗	✗	✓	✓
Temperature levels	-	-	2	3
Changes per day	-	-	4	6
Min. programming time	-	-	30 minutes	10 minutes
Adjustable range	11 °C to 29 °C	3 °C to 40 °C	3 °C to 40 °C	3 °C to 40 °C
Min. indicative leap	-	0,5 °C	0,1 °C	0,1 °C
Measurement accuracy	1 °C	0,5 °C	0,5 °C	0,5 °C
Hysteresis	0,3 °C	0,5 °C	0,5 °C	0,1 °C to 6 °C
Type of regulation	ON / OFF	ON / OFF	ON / OFF	ON / OFF
Open window function	✗	✗	✓	✓
Preliminary heating start function	✗	✗	✗	✓
Function OFF	✓	✓	✓	✓
Frost protection	✗	✗	✓	✓
Short-term change of temperature	✗	✗	✓	✓
Low battery indication	✗	✗	✓	✓
Key lock	✗	✗	✓	✓
Temperature setting	1 °C	0,5 °C	0,5 °C	0,5 °C
Saving of setting	✗	✗	everlasting(E-EPROM)	everlasting(E-EPROM)
Backup battery	✗	✗	✓	✓

Technical specifications	TS01	TS05	TS10	TS20
Power supply	230 V / 50 Hz	230 V / 50 Hz	230 V / 50 Hz	230 V / 50 Hz
Consumption	< 0,5 VA	< 0,5 VA	< 0,5 VA	< 0,5 VA
Output	relay	relay	relay	relay
Max. load	max. 16 A	max. 16 A	max. 16 A	max. 16 A
Backup battery	-	-	NiMh 2,4 V / 40 mAh	NiMh 2,4 V / 80 mAh
Protection degree	IP20	IP20	IP20	IP20
Working temperature	0 °C to 40 °C	0 °C to 40 °C	0 °C to 40 °C	0 °C to 40 °C

Electric heating panel



Direct heating body



Towel drier



Infrared panel



**TS30**

Order Nr.: 0158



## Description:

- large backlit display
- a different temperature program for each day
- possibility to set 6 temperature levels
- possibility of short-term change of program temperature
- BOOST function, for quick switching on
- holiday mode
- choice of PI control or hysteresis

- measurement of total consumption
- autom. shutdown in case of sudden drop in room temperature - WINDOW
- HEATING / COOLING mode
- key lock with code
- choice of cars. summer / winter time changes
- frost protection (optional)
- temperature control after 0.5 °C
- E-EPROM memory and time run backup for min. 24h

## Technical parameters

<b>Power supply</b>	230 V / 50 Hz
<b>Number of adjustable temperatures</b>	6 temperature changes per day
<b>Minimum programming time</b>	10 minutes
<b>Adjustable temperature range</b>	5 up to 39 °C
<b>Temperature settings</b>	each 0,5 °C
<b>Minimum indication jump</b>	0,1 °C
<b>Measurement accuracy</b>	± 1 °C
<b>Frost protection</b>	yes (adjustable)
<b>Time backup</b>	yes (24 hours)
Protection degree	IP20
<b>Output (potential-free contact)</b>	relay, max. 16 A / 250 V AC
<b>Operating temperature</b>	0 up to 40 °C



## GSM socket for remote control via mobile phone

# TS11 GST

Order Nr.: - 0172



TS11 GST is used to control appliances using short SMS or dialing from a mobile phone. GSM socket has an input for temperature sensor or potential-free contact. The GSM socket is also built-in microphone for wiretapping.



1 x CT06 - 10K - included



1 x CT11 - Jack-vacuole- included



Remote control of  
thermostat via  
SMS



Remote control via  
Android APP and iOS



### Description:

- Automatically sends SMS when temperature thresholds are exceeded the measured at input
- Rings on one telephone number for exceeding temperature limits
- Automatically switch output when on input are exceeded temperature limits
- Regulation with the hysteresis 1 °C
- Controls the output according to the temperature at the input
- Automatically sends an SMS with information about the state (switching on or off) the input contact
- Rings up to phone number when changing the state of input contact
- Automatically switch output when change on input
- Time control output
- Output is controled by ringing on the set time t (1s to 999 minutes)
- It works as eavesdropping
- Restart, shutdown current output socket on 20s (for servers)
- LED indicators to determine the status of GSM socket

App can be downloaded  
FOR FREE ON on  
Google Play



Can be downloaded for  
free on AppStore



### Technical specifications

Power supply	230 V / 50 Hz
GSM module	SIM300 900 / 1800 MHz
Input	<b>temp. sensor CT06-10k-jack</b> (included) <b>bistable CT11 jack</b> (included)
Output	max. 16 A / 250 V (AC1)
GSM antenna	direct1 dB
Dimensions	130 x 57 x 85 mm
Working temperature	0 °C to 40 °C

TS11 GST

# TS11 WiFi

Order Nr.: 0076

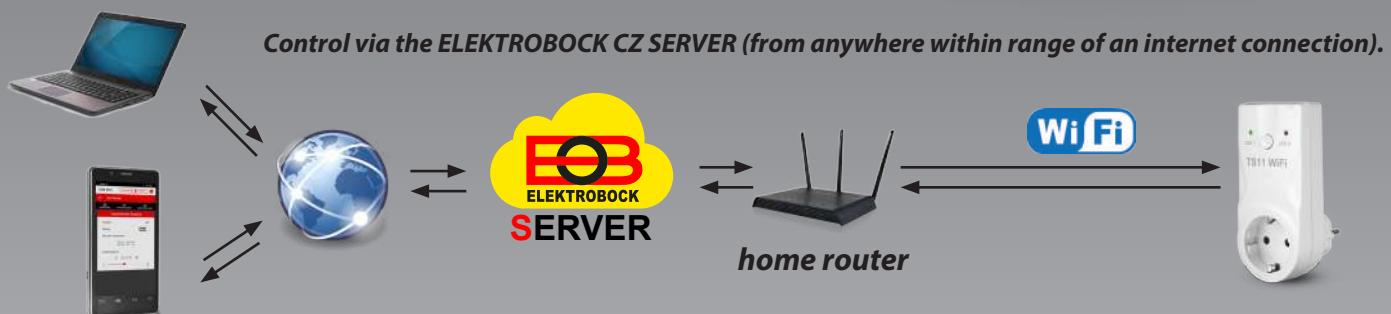


WiFi

+



TS11 WiFi



### Technical specifications

Power supply	230 V / 50 Hz
Temperature changes in day	16
WiFi communication	802.11 b/g/n
WiFi module	ESP-WROOM-02D
WiFi sensitivity	-91 dBm
Minimal programming time	1 minute
Consumption	1,5 W
Protection degree	IP20
Connectivity	WiFi
Output	max. 16 A
Working temperature	0 to 40 °C

FREE app for  
Android



FREE app for iOS



Wireless socket with WiFi control with time and temperature program

# TS11 WiFi Therm

Order Nr.: - 0075



FREE application  
for Android



FREE application  
for iOS

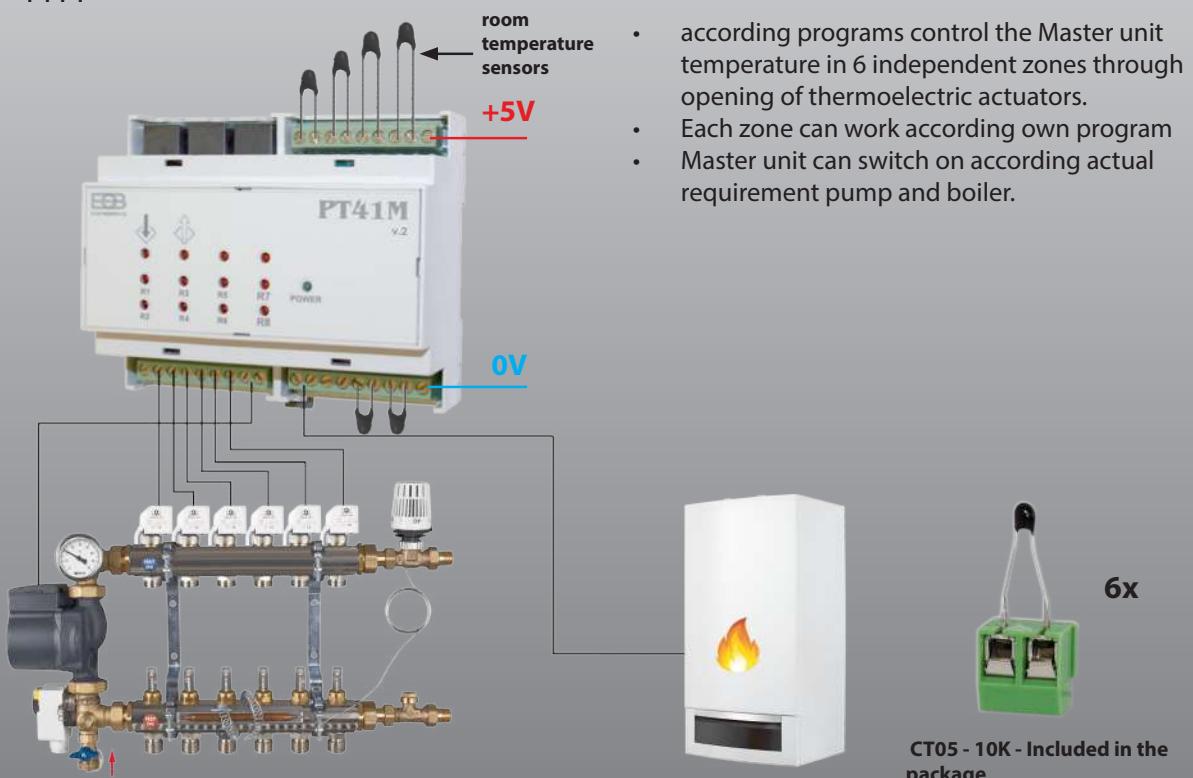


## Technical parameters

Power supply	230 V / 50 Hz
Number of time changes	16 / day
WiFi communication	802.11 b/g/n
WiFi module	ESP-WROOM-02D
Sensitivity WiFi	-91 dBm
Minimum program time	1 minute
Consumption	1,5 W
Protection degree	IP20 (sensor is not waterproof)
Connectivity	WiFi
Output	max. 16 A
Operating temperature	5 up to 40 °C
Sensor length	1,5 m

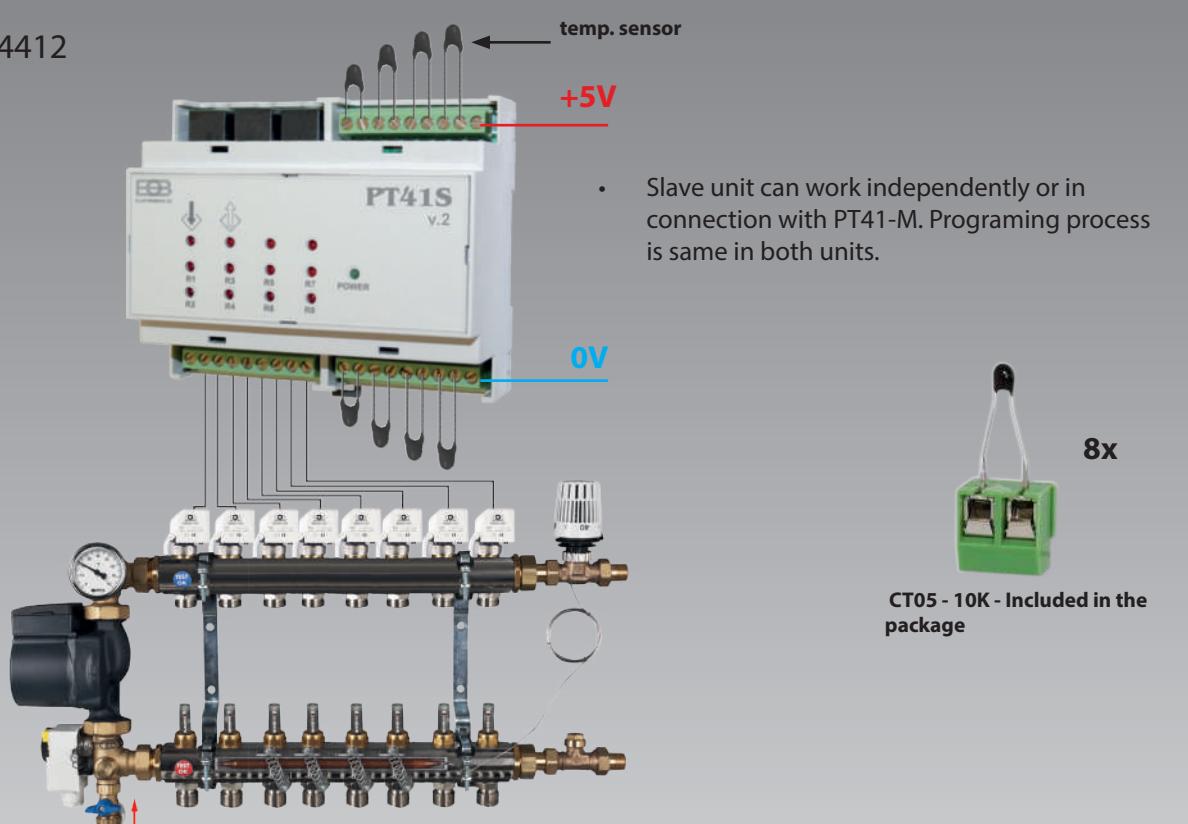
## PT41-M

Order Nr.: - 4411



## PT41-S

Order Nr.: - 4412



# Control of water floor heating

Units PT41-M and PT41-S can be connected to each other and can be controller remotely by using PRE module through WiFi or Ethernet.



AD05-DIN

PRE40

Converter  
WIFI / Ethernet / USB

PT41-M

PT41-S

By using of our converter PRE10, PRE20, PRE30, PRE40, can be the heating system controlled remotely through WiFi or Ethenet.



Setting of all parameters and programming is made through converter.

- PRE-USB / RS232
- PRE40



PRE40  
Order Nr.: - 1347



PRE-USB / RS232  
Order Nr.: - 4114

For remote control are available APPs for free on GOOGLE PLAY and APPSOTRE

App for:



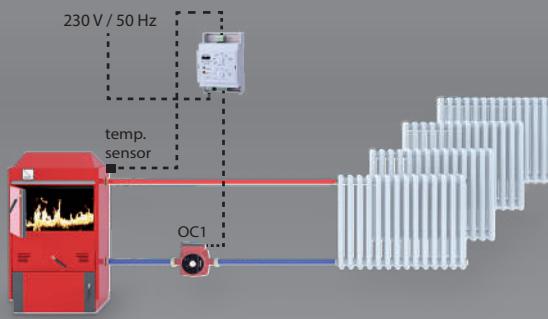
## RJ401

Order Nr.: - 4401

### Temperature switch

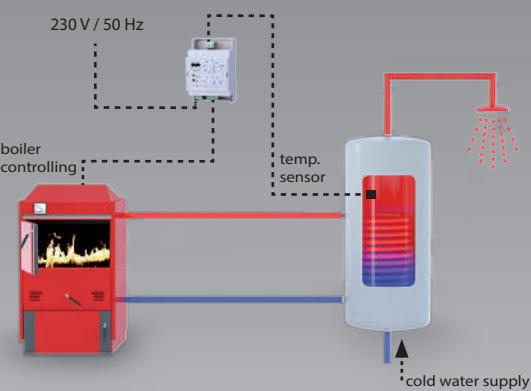


CT01 - 10K - included in the package



### Function:

After the boiler has been started and a required temperature has been reached, OC1 shall switch on. If the boiler is again cooled down at the beginning by a returning cold water, OC1 shall switch off. This partially reduces the boiler "pitching" due to a cold return pipe. If the boiler stops and becomes partially cold, OC1 shall switch off as well. This prevents the pump from running uselessly.



Technical specifications	
Power supply	230 V / 50 Hz
Consumption	up to 0,5 W
Regulation range	20 °C to 80 °C
Hysteresis	2 °C to 35 °C
Working temperature	0 °C to 50 °C
Outputs	relay 5 A / 250 V AC potential free contacts
Protection degree	IP20
Installation	on DIN rail
Temperature sensor 10K	1 pcs

### Automatic start of the boiler upon decrease of the central heating water temperature - control of recharging (only for boilers enabling this function)

When the tank temperature decreases below the set value, the contact shall switch on and the boiler shall start. When the required temperature is reached, the boiler shall stop. Advantage of this control is the possibility of adjusting hysteresis in the range from 2 to 35 °C.

## Differential temp. switch

# RJ402

Order Nr.: 4402

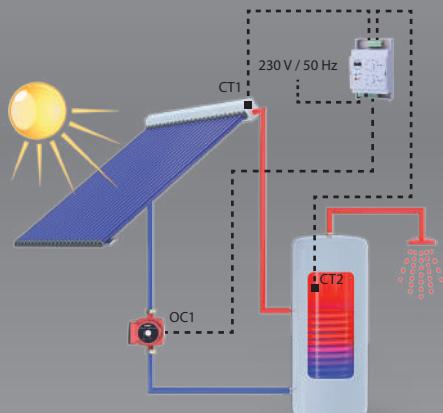
RJ402 is designed for switching the pump by preset difference of temperatures and afterwards switch off the pump by falling of temperature difference for preset hysteresis.



2 x CT01 - included in the package

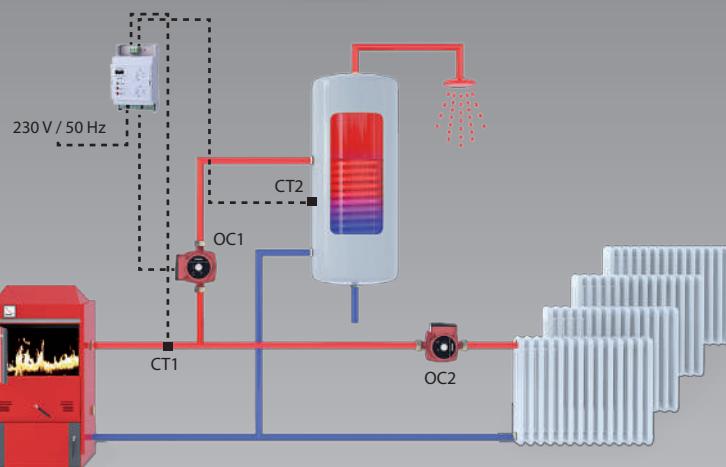


**RJ402**



### Controlling of pump by solar system:

RJ402 compares a temperature difference between CT1 and CT2. When CT1 becomes warmer than CT2 by a set value, the relay shall switch on and the motor OC1 shall start. If the solarium temperature decreases by a set limit, OC1 shall stop.



### Automatic charging of hot water tank:

RJ402 measures temperature in the heat source, in the boiler in this case. If the boiler temperature is higher by a selected value than the tank temperature, OC1 shall start resulting in hot service water recharging. When difference of temperatures decreases by a set value (drop), the hot service water tank recharging shall stop.

#### Technical specifications

Power supply	230 V / 50 Hz
Consumption	up to 0,5 W
Max. temp. on the sensor	-20 °C to 120 °C
Diff. of temperatures	2 °C to 50 °C
Hysteresis	2 °C to 35 °C
Working temp.	0 °C to 50 °C
Outputs	relay 5 A / 250 V AC potential free contacts
Protection degree	IP20
Installation	on DIN rail
Temperature sensor 10K	2 pcs

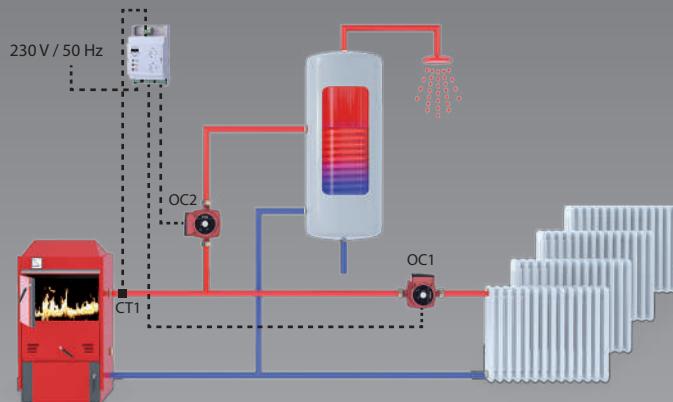
# RJ403

Order Nr.: - 4403



CT01 - 10K - included in the package

## Two-level electronic thermostat



### RJ403 has two adjustable levels for switching:

When the heat source temperature reaches the first level, RE1 shall switch on resulting in OC1 to start to supply energy to the heating system.

If there is sufficient energy in the system and water temperature continues increasing, its temperature shall reach the second level resulting in the hot service water tank recharging.

Hysteresis of both values is fixed to 5 °C.

In case of a failure of the temperature sensor, both pumps shall start.

### Technical specifications

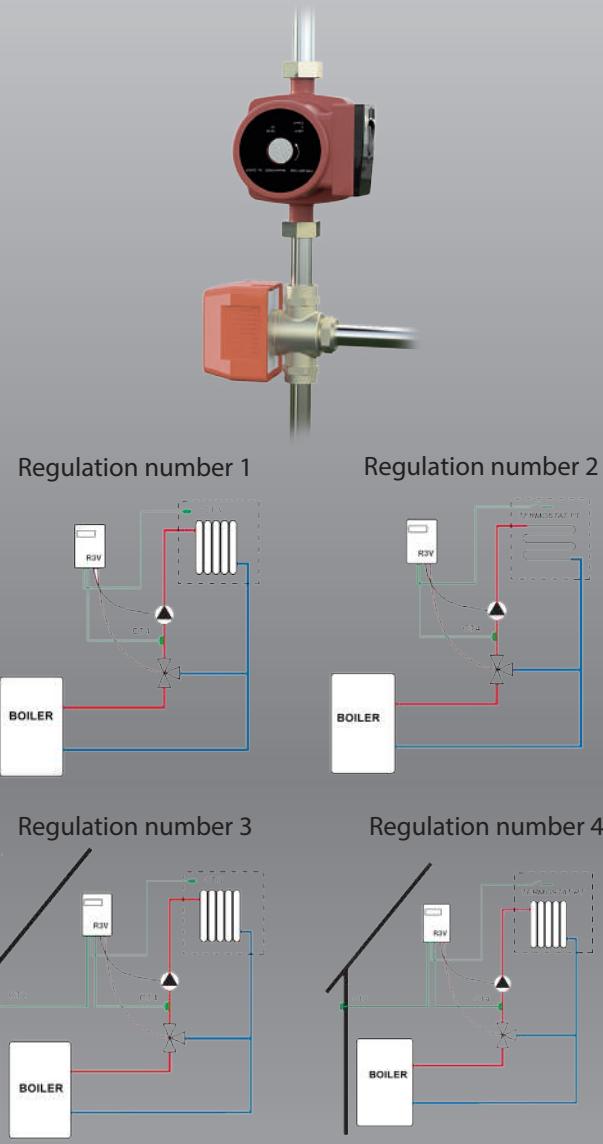
Power supply	230 V / 50 Hz
Consumption	1 W
Regulation range	20 °C to 80 °C
Hysteresis	5 °C
Working temp.	0 °C to 50 °C
Outputs	relay 5 A / 250 V AC potential free contacts
Protection degree	IP20
Installation	on DIN rail
Temperature sensor 10K	1 pcs

## Three/four-way valve controller

R3V is digital programmable electronic controller for three/four-way valves with continuous regulation of movement and with controlling of pump.

**R3V**

Order Nr.: - 4201



### Basic features:

- temperatures indication on LCD
- weekly programming
- six programms and six temp. changes per day
- six types of regulation
- storage of programms by power failure
- automatic summer/winter time change
- maximum temp. monitoring for central heating
- return pipe temperature monitoring
- selection of temperature of: return pipe, room, downstream of valve
- selection of regulation interval
- selection of valve run length
- selection of pump running down
- automatic adaptation

### Technical specifications

Power supply	5 V DC, 500 mA
Consumption	< 1,5 W
I max (for pump)	5 A
I max (for motorized valve)	0,5 A
Number of temp. changes	6 for each day
Min. programming time	10 minutes
Temp. setting	by 0,5 °C
Min. indication leap	0,1 °C
Measurement accuracy	±0,5 °C
Protection degree	IP20
Working temperature	0 °C to 40 °C

\* it is necessary to purchase an AD05-DIN power supply for the controller - it is not part of the package

## R3V-421

Order Nr.: - 4421

Controller for valves for two zones systems

R3V-421



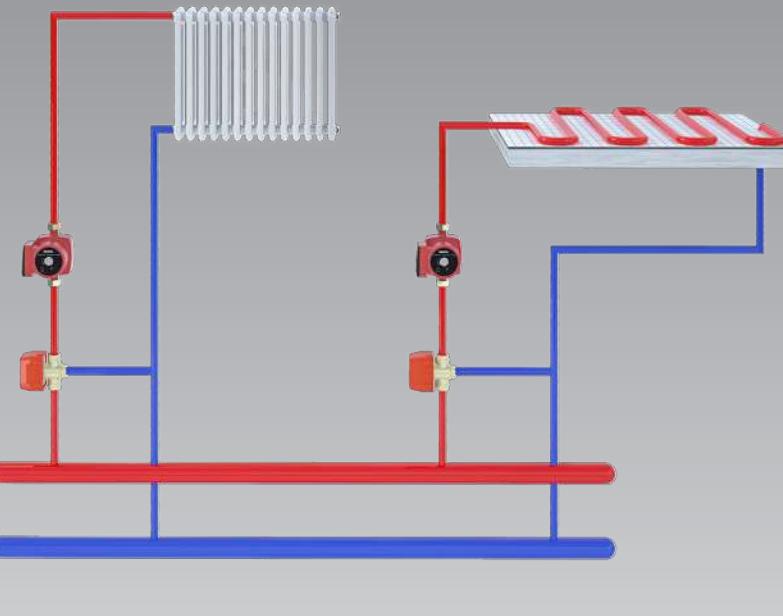
### Technical specifications

Power supply	5 V DC, 500 mA
Consumption	< 1,5 W
I max	5 A
Number of temp. changes	6 for each day
Min. programming time	10 minutes
Temp. setting	by 0,5 °C
Min. indication leap	0,1 °C
Measurement accuracy	±0,5 °C
Protection degree	IP20
Working temperature	0 °C to 40 °C

\* for controller it is necessary to buy power supply unit AD05-DIN - not included in the package

from heating source

to heating source

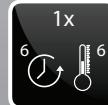


## Circuit regulator for three / four-way valves

# R3V-422

Order Nr.: 4422

R3V-422 is intended for continuous regulation of actuators of mixing valves for one or two heating circuits. Depending on a selected regulation mode, regulation can be matched to the given system by adjusting constants.



R3V-422

Diagram 1

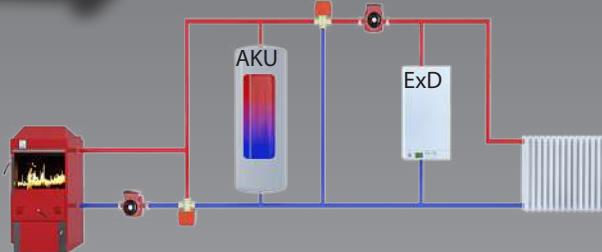


Diagram 2

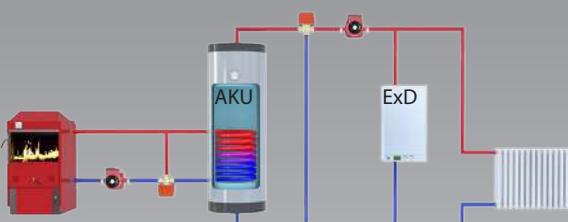


Diagram 3

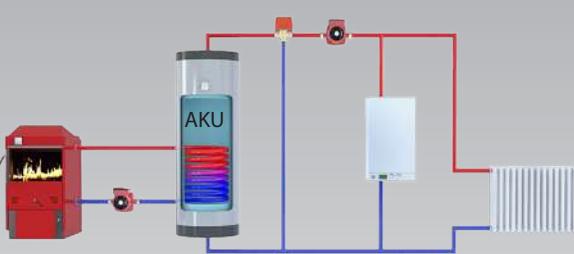
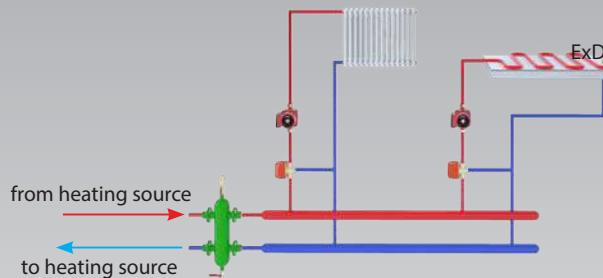


Diagram 4



## R3V-A1

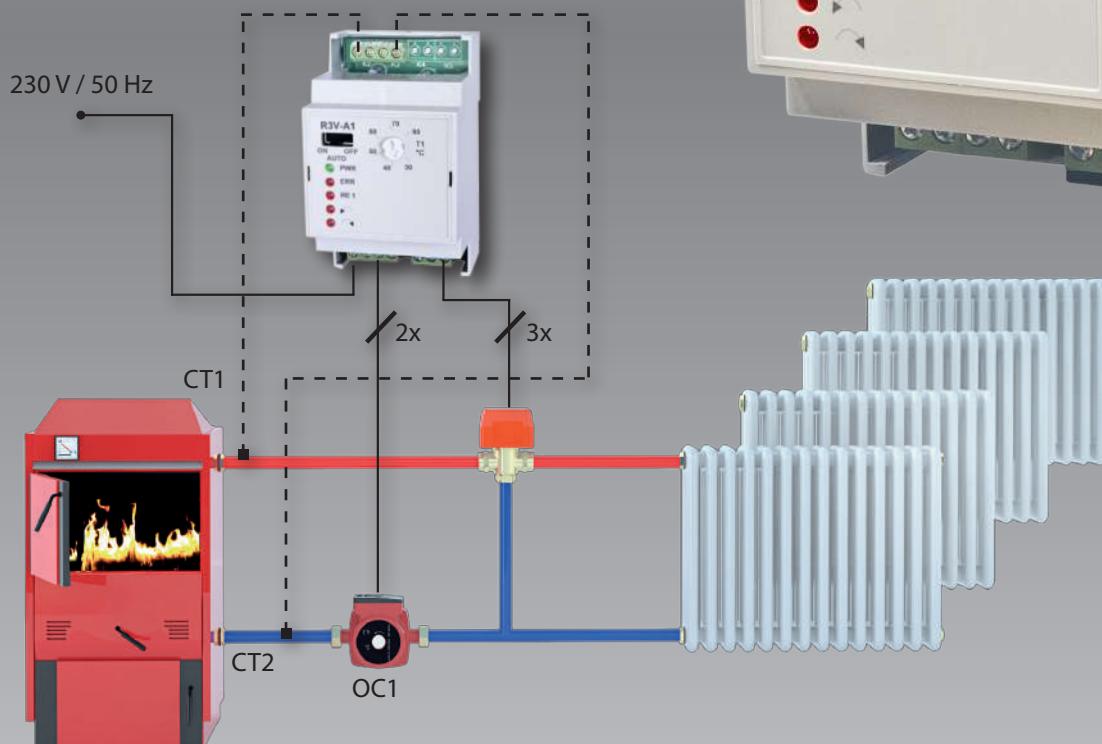
Order Nr.: - 4423

**Three/four-way valve controller  
Return pipe temperature monitoring**

**R3V-A1**



2 x CT01 - 10K - included



Technical specifications		Output OC 1	relay
Power supply	230 V / 50 Hz	Switching current	max. 8 A / AC1
Consumption	< 1 W	Contact type	switching
Working temp.	0 °C to 50 °C	Type of valve	optotriac
Regulation range	30 °C to 80 °C	Optotriac	max. 0,1 A / AC1
Back water temp.	30 °C to 80 °C	Contact type	semiconductor

## Equithermal regulator of mixing valves

# R3V-A2

Order Nr.: - 4424

The device is intended for continuous regulation of a mixing valve depending on outdoor temperature and a thermostat request in the reference room.



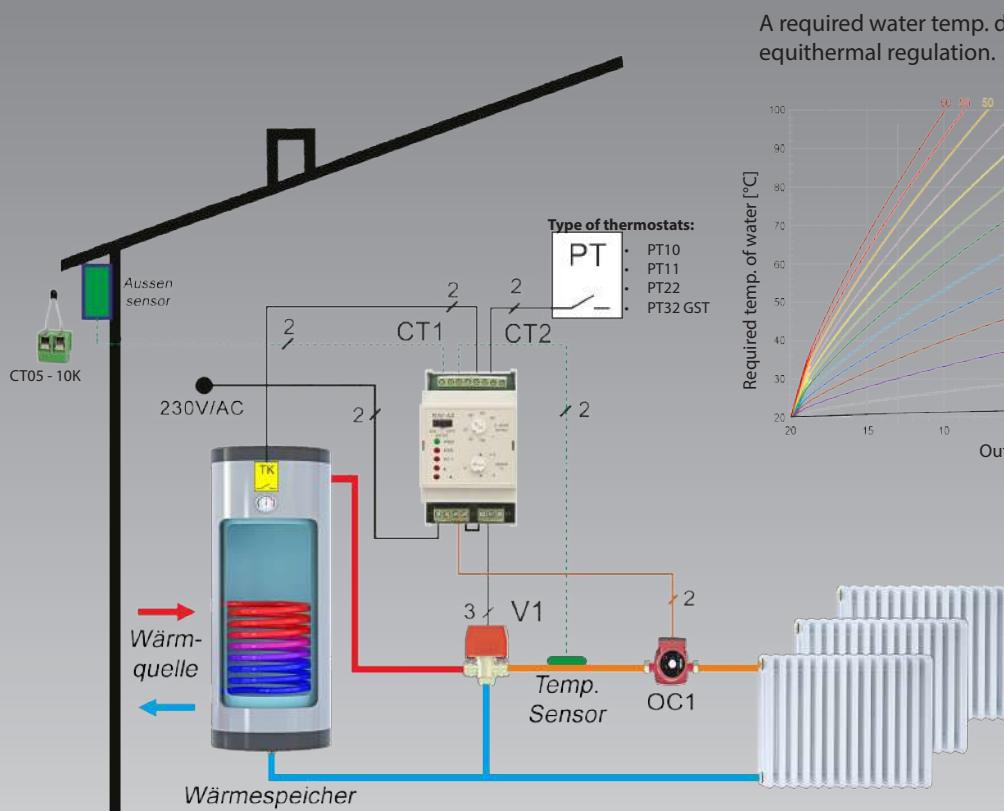
CT01 - 10K - included



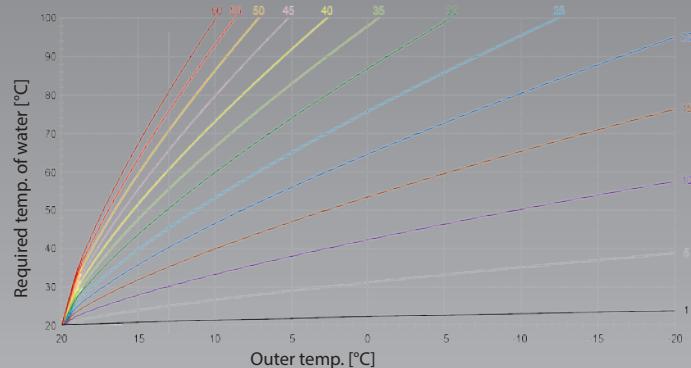
CT05 - 10K - included



R3V-A2



A required water temp. depending on outdoor temperature for equithermal regulation.



App - equithermal curve



[www.history.elektrobock.cz/Equitherm](http://www.history.elektrobock.cz/Equitherm)

# R3V-A3

Order Nr.: - 4425

## Equithermal regulator of three way valves



R3V-A3 is designed for regulation of water temperature for heating depending on outer temperature with priority of monitoring back water from boiler, which is set on 60 °C.



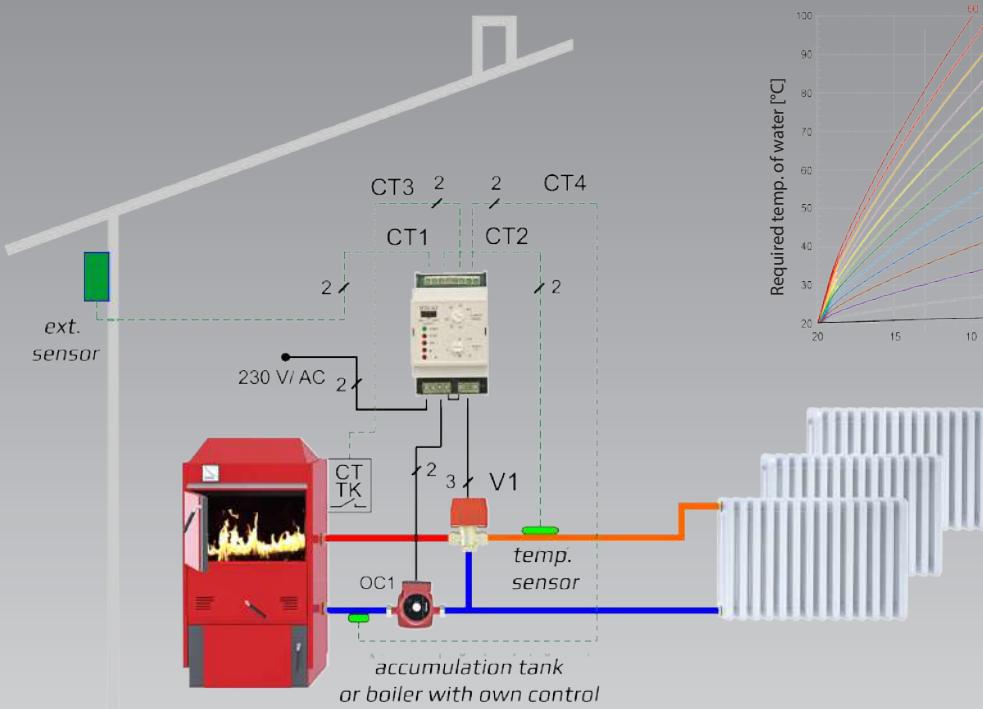
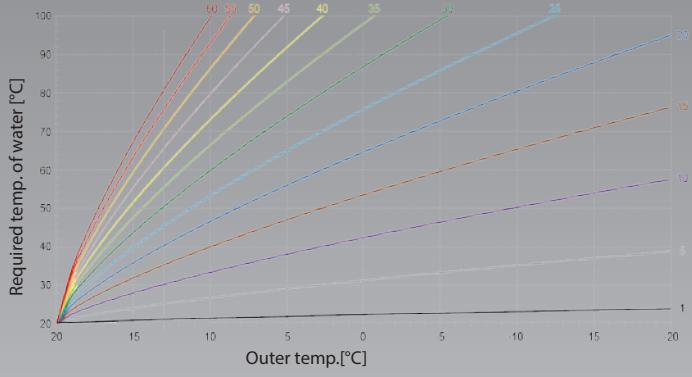
CT01 - 10K - included in the package



CT05 - 10K - included in the package



A required water temp. depending on outdoor temperature for equithermal regulation.



App - equithermal curve



[www.history.elektrobock.cz/Equitherm](http://www.history.elektrobock.cz/Equitherm)





More information about prices and products on:

**www.elbock.cz**



ELEKTROBOCK CZ s. r. o.  
Blanenská 1763  
664 34 Kuřim  
Czech Republic  
Tel: +420 725 427 741  
[www.elektrobock.cz](http://www.elektrobock.cz)  
E-Mail: [elbock@elebock.cz](mailto:elbock@elebock.cz)