

# ROOM THERMOSTAT

with OpenTherm+ communication

# PT52

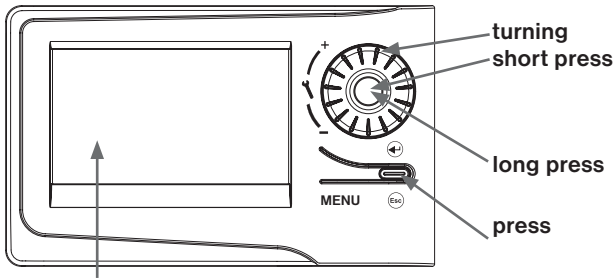
- **LARGE BACKLIT DISPLAY**  
with intuitive navigation in English
- **9 WEEKLY PROGRAMS FOR CENTRAL HEATING (C.H.)**  
6 temperature changes per day
- **1 WEEKLY PROGRAM FOR HOT SERVICE WATER (D.H.W.)**  
3 temperature changes per day
- **CONTROL TYPE SELECTION**  
according to room or equitherm control
- **OPERATION OPTIMIZATION**  
preliminary switch-on function
- **UP TO 30 % ENERGY SAVINGS**  
quick investment return



**EOB**  
S.R.O.  
**ELEKTROBOCK CZ**  
MADE IN CZECH REPUBLIC

## DESCRIPTION

PT52 is intended for controlling gas and electric boilers which use the OpenTherm Plus (OT+) communication protocol. Its great advantages are the backlit display and navigation in CZ/PL/EN/DE/RU.



### Backlit display

After you press any button, the display is backlit automatically for at least 5 s (activated within 30 min after connecting the OT line).

### Controls

- = change of temperature setting
- = selection (entry) confirmation
- = quick change of required temperature or program (see page 3); viewing other information (see page 4)
- = step back (only in the CONST mode, page 8)
- = opening the main menu or returning a step back

## INSTALLATION AND LOCATION

Install the thermostat at a suitable place where its operation will not be affected by direct flow of hot air from a heating source, by sunshine or other disturbing effects. Do not install it on an external wall either. The installation height should be at least 1.5 m above the ground. Locate the thermostat in the so-called reference room, such as the living room (the heat source will be switched according to the temperature in this room).

**The installation can only be done by a person with adequate qualification! Before installation, disconnect the power supply!**

- 1) Remove the control part from the bottom cover of the device (Fig. 1, page 3).
- 2) Chip off the plastic piece in the middle of the bottom cover to lead in the conductors.
- 3) Run the conductors through the hole and connect them to the terminal board acc. to the diagram.
- 4) Fasten the bottom cover to the wiring box by means of screws (Fig. 2, page 3).
- 5) Mount the control part onto the bottom cover.
- 6) Upon the first start (or reset), the thermostat shows the "SET TIME" message; set the current time and date acc. to the instructions on page 5.
- 7) To change the navigation menu language, follow page 8 (Czech set by default).
- 8) Ask the boiler manufacturer, whether it communicates by means of the standard OpenTherm Plus protocol (for the Thermona, Ferolli and Viessmann boilers, change the constant No. 26, see page 13).

### Wiring diagram:

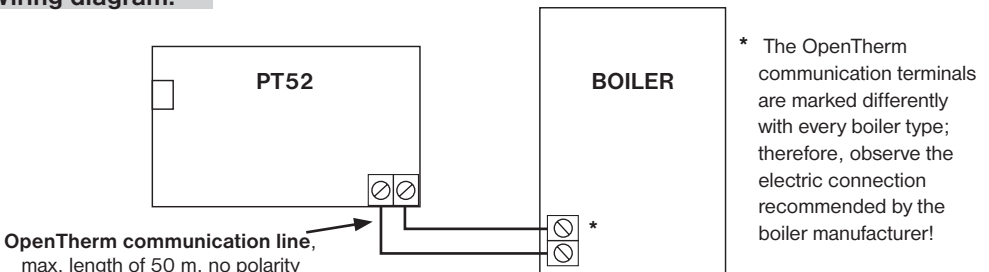


Fig.1

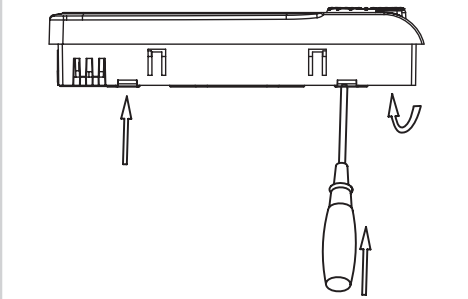
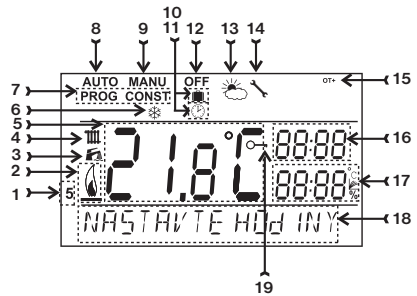
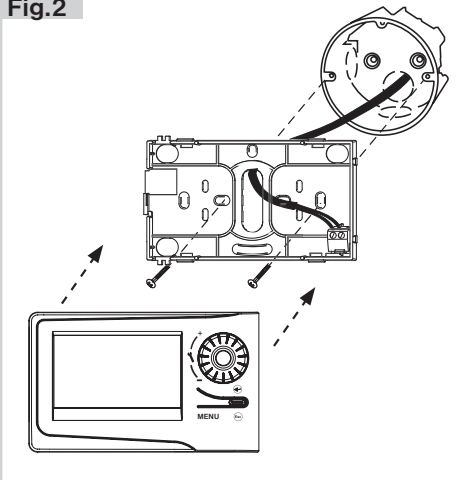


Fig.2



- |   |  |
|---|--|
| 1, Current day (in the Prog mode, selection of days to be programmed)     | 11, Clock setting mode   |
| 2, Heating on indication  | 12, Permanent shut-off (page 5)  |
| 3, Hot service water indicator  | 13, Summer mode  |
| 4, Central heating indicator  | 14, Boiler inspection indic.   |
| 5, Current room temperature   | 15, OpenTherm (OT+) communication indic.   |
| 6, Anti-freeze temperature  | 16, Current time   |
| 7, Modes for setting programs (PROG) and constants (CONST) (page 6 and 8) | 17, Current date/required temperature/modulation output in % (in the CONST mode, for example, number of the equitherm curve; for details, see page 9 ) |
| 8, Automatic mode (page 5)  | 18, Status line, dynamically changing according to the running process   |
| 9, Manual mode (page 5)   | 19, Key lock indication  |
| 10, Holiday mode (page 5)   |  |

## USER TIPS

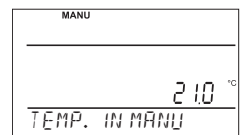
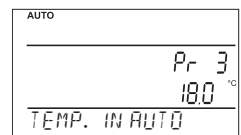
### QUICK CHANGE OF REQUIRED TEMPERATURE / PROGRAM

Press twice the “↺” button; the required temperature starts flashing on the display. Change the required temperature by turning the “↻” button and press the “↺” button for further information, or “Esc” to return to the main menu.

**In the AUTO mode**, the change will last until the next program change. In this mode, another program can be selected in the same way.

**In the MANU mode**, the change is permanent.

By successively pressing the “↺” button, you can view further information on the: required temperature of hot service water, external temperature, central heating temperature, boiler output, and operating hours of the central heating and hot service water; for detailed description, see page 4.

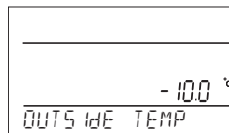


## FURTHER INFORMATION

By successively pressing the “” button in the AUTO/MANU modes, you can view further information which the boiler sends to the thermostat (attention: this information may differ according to the boiler type):

### INFORMATION ON EXTERNAL TEMPERATURE

Information on the current external temperature provided a sensor is connected to the boiler!

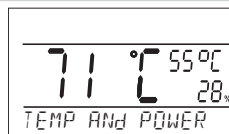


### INFORMATION ON C.H. TEMP. AND MODULATION OUTPUT

**Required C.H.** = C.H. temperature calculated according to the equilibrium curve selected, irrespective of the possible min. and max. temperature of C.H. water; the value in brackets is the required temperature with respect to the min. and max. C.H. temperature set (see page 7).

**Current C.H.** = current central heating water temperature


**Modul. power** = modulation power of the boiler in %

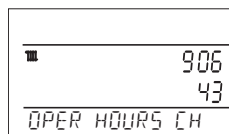


### C.H. OPERATING HOURS

Value of the boiler operating hours for central heating. The LCD value means 906 hours and 43 minutes (the maximum value is 9999 hours and 999 minutes).

#### Resetting hours:


After displaying the operating hours, turn the “” button anti-clockwise.

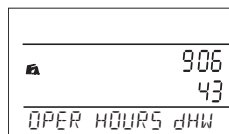


### HOT SERVICE WATER OPERATING HOURS

Value of the boiler operating hours for hot service water heating. The LCD value means 906 hours and 43 minutes (the maximum value is 9999 hours and 999 minutes).

#### Resetting hours:

After displaying the operating hours, turn the “” button anti-clockwise.



**Additional information may be displayed: flow of water in liters, and temperature return!**

## ERROR MESSAGES

If the communication line between the thermostat and boiler is disconnected or interrupted, the LCD displays the “**LINE DISCONNECTED**” message (at first connection, the thermostat must be connected via the OT line to the boiler for about 30 minutes).

This system features a long time of clock operation backup – **for more than 7 days!**

The thermostat must be connected to the OT line for at least 2 days.

In case of a too long communication line failure, you must set the date and time, but the constants and programs remain saved in the thermostat!

In this case, the “**SET TIME**” reminder appears on the last line of the display.

The OpenTherm protocol allows sending of error messages of different importance from the boiler to the thermostat. PT52 shows these messages on the last line of the display:

- **E xxx**, where the **xxx** value may be **001 to 255**. This type of errors may vary according to the boiler manufacturer; therefore, you must contact a service technician or the manufacturer. The errors may include, for example: wrong flue gas exhaust, external temperature sensor error, etc.
- Temp. measurement error = the internal sensor of the thermostat is faulty; contact the manufacturer.
- OPT error - central heating temperature = information on the current central heating temperature not received from the boiler, contact the boiler service.

## OPERATING MODES

Pressing any button first, you activate the display backlight. By another short press of the "MENU" button, you open the main menu in which you can choose operating modes.

### AUTO (the Pr3 weekly program set by default, see page 6)

The thermostat works according to the weekly program settings (this program can be changed; for detailed description, see PROG, page 6).

Press twice the "MENU" button, choose the AUTO mode by turning the "↖" button, and press the "↻" button to confirm.



### MANU (default temperature setting of 21°C)

The thermostat works according to the temperature setting until the next manual change.

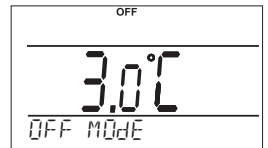
Press twice the "MENU" button, choose the MANU mode by turning the "↖" button, and press the "↻" button to confirm.



### OFF (the anti-freeze temperature of 3 °C is kept – cannot be changed)


The thermostat is switched off until the next manual change of the mode.

Press twice the "MENU" button, choose the OFF mode by turning the "↖" button, and press the "↻" button to confirm.



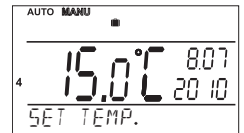
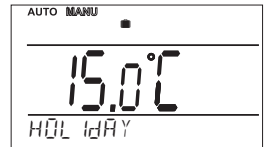
### HOLIDAY

The thermostat maintains the preset temperature until the preset date and selected time. After expiry of the preset period, it automatically returns to the AUTO / MANU mode last selected before the holiday.

Press twice the "MENU" button, choose the  mode by turning the "↖" button, and press the "↻" button to confirm.

Step by step, set the temperature which the thermostat should keep during the holiday, date and time of your return from the holiday. Change the values by turning the "↖" button and confirm each change by pressing the "↻" button. After making the settings, press the "Esc" button to return to the basic screen.

Note: The holiday mode can be cancelled any time by selecting another AUTO or MANU mode.

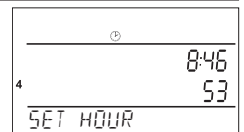
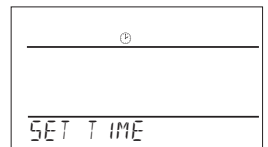


### CLOCK SETTING

Setting the correct time and date.

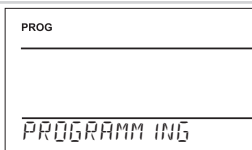
Press twice the "MENU" button, choose the CLOCK mode by turning the "↖" button, and press the "↻" button to confirm.

Change the time by turning the "↖" button and confirm each change by pressing the "↻" button (the parameter modified is always flashing); pressing the "Esc" button, you return to the menu.



# PROG (PROGRAMMING)

You can set up to 9 weekly programs for central heating (6 temperature changes per day). The Pr1 and Pr2 programs are empty; Pr3 to Pr7 programs are set by default. The PrU and PrL are also set by default, intended for the EVEN/ODD week (see page 12). Further, you can set 1 weekly program for hot service water (see page 7).

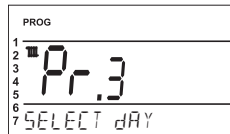


## Change in the central heating program settings:

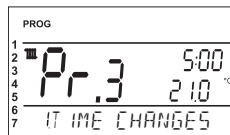
Press twice the "MENU" button, choose the PROG mode by turning the "↖" button, and press the "⏪" button to confirm.



The selected program number is blinking on the display. Turning the "↖" button, choose the program which you want to change and press the "⏪" button to confirm.



Turning the "↖" button, choose the days to be programmed (you can program day-by-day or 1-5 = Mon-Fri, 6-7 = Sat-Sun, or 1-7 = Mon-Sun) and press the "⏪" button to confirm. The 1st change time starts flashing; set the time by turning the "↖" button (by minimum steps of 10 min) and press the "⏪" button to confirm.



Set the temperature for this time by turning the "↖" button and press again the "⏪" button to confirm. The 2nd change time appears on the display. Proceed in the same way as with the first change setting.

In this way, you can set up to 6 temperature changes per day.

To return one step back, shortly press the "Esc" button; to return to the main menu, press the "Esc" button long.

After changing the preset program, check whether all the changes made conform to your requirements!

It is not necessary to apply all six changes to one day!

## Tables of temperature programs for central heating:

program No.1	1	2	3	4	5	6
Monday						
Tuesday						
Wednesday						
Thursday						
Friday						
Saturday						
Sunday						

program No.2	1	2	3	4	5	6
Monday						
Tuesday						
Wednesday						
Thursday						
Friday						
Saturday						
Sunday						

program No.3	1	2	3	4	5	6
Monday	05/21	06/18	12/20	16/21	18/22	21/18
Tuesday	05/21	06/18	12/20	16/21	18/22	21/18
Wednesday	05/21	06/18	12/20	16/21	18/22	21/18
Thursday	05/21	06/18	12/20	16/21	18/22	21/18
Friday	05/21	06/18	12/20	16/21	18/22	21/18
Saturday	07/21	21/18				
Sunday	07/21	21/18				

program No.4	1	2	3	4	5	6
Monday	06/21	07/18	15/21	18/22	22/18	
Tuesday	06/21	07/18	15/21	18/22	22/18	
Wednesday	06/21	07/18	15/21	18/22	22/18	
Thursday	06/21	07/18	15/21	18/22	22/18	
Friday	06/21	07/18	15/21	18/22	22/18	
Saturday	07/21	18/22	22/18			
Sunday	07/22	18/23	22/19			

program No.5	1	2	3	4	5	6
Monday	09/21	09/18	15/21	18/22	23/18	
Tuesday	08/21	09/18	15/21	18/22	23/18	
Wednesday	08/21	09/18	15/21	18/22	23/18	
Thursday	08/21	09/18	15/21	18/22	23/18	
Friday	08/21	09/18	15/21	18/22	23/18	
Saturday	08/21	18/22	22/18			
Sunday	08/21	18/22	22/18			

program No.6	1	2	3	4	5	6
Monday	07/21	09/18	15/22	18/23	22/18	
Tuesday	07/21	09/18	15/22	18/23	22/18	
Wednesday	07/21	09/18	15/22	18/23	22/18	
Thursday	07/21	09/18	15/22	18/23	22/18	
Friday	07/21	09/18	15/22	18/23	22/18	
Saturday	07/21	18/23	22/18			
Sunday	07/21	18/23	22/18			

program No.7	1	2	3	4	5	6
Monday	07/22	09/18	15/23	18/24	22/18	
Tuesday	07/22	09/18	15/23	18/24	22/18	
Wednesday	07/22	09/18	15/23	18/24	22/18	
Thursday	07/22	09/18	15/23	18/24	22/18	
Friday	07/22	09/18	15/23	18/24	22/18	
Saturday	08/22	18/24	22/18			
Sunday	08/22	18/24	22/18			

**Note:**  
5/21 means  
that the required  
temperature at 5  
o'clock is 21 °C

program U	1	2	3	4	5	6
Monday	06/20	08/18	14/21	17/22	22/17	
Tuesday	06/20	08/18	14/21	17/22	22/17	
Wednesday	06/20	08/18	14/21	17/22	22/17	
Thursday	06/20	08/18	14/21	17/22	22/17	
Friday	06/20	08/18	14/21	17/22	22/17	
Saturday	07/21	17/23	22/19			
Sunday	07/21	17/23	22/19			

program L	1	2	3	4	5	6
Monday	08/23	21/18				
Tuesday	08/23	21/18				
Wednesday	08/23	21/18				
Thursday	08/23	21/18				
Friday	08/23	21/18				
Saturday	08/23	21/18				
Sunday	08/23	21/18				

All the  
indicated  
programs  
can be  
changed!

## Change in the hot service water program settings:

In the hot service water program (**Prt**), you can set 3 time intervals with different temperatures (the minimum step is 1 hour).

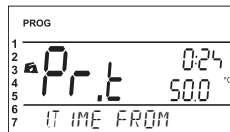
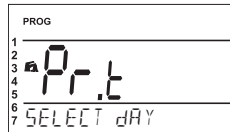
Press twice the “**MENU**” button, choose the PROG mode by turning the “**↖**” button, and press the “**↻**” button to confirm.

The selected program number is blinking on the display. Turning the “**↖**” button, choose the **Prt** program and press the “**↻**” button to confirm. Turning the “**↖**” button, choose the number of days to be programmed (you can program day-by-day or 1-5 = Mon-Fri, 6-7 = Sat-Sun, or 1-7 = Mon-Sun) and press the “**↻**” button to confirm.

The **1st time from** starts flashing; set the switch time by turning the “**↖**” button and press the “**↻**” button to confirm. The **1st time to** appears; set the switch-of time by turning the “**↖**” button and press the “**↻**” button to confirm. Set the temperature for this time by turning the “**↖**” button and again press the “**↻**” button to confirm. The **2nd time from** appears on the display. Proceed in the same way as with the first change setting.

In this way, you can set up to **3 temperature changes per day**.

To return one step back, shortly press the “**Esc**” button; to return to the main menu, press the “**Esc**” button long.



## Table of the hot service water temperature program:

The optional t program - for the TUV reheating						
Intervals	1		2		3	
	FROM	TO °C	FROM	TO °C	FROM	TO °C
Monday						
Tuesday						
Wednesday						
Thursday						
Friday						
Saturday						
Sunday						

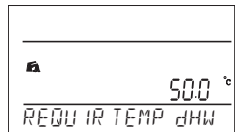
The program preset for hot service water:  
 whole week (1-7)  
 whole day (0-24)  
 temperature 50 °C.  
 This program can be changed any time!

## If you just want to change the hot service water temperature temporarily, use the possibility of a short-term change of hot service water temperature:

Press the “**↻**” button four times; the value of the required hot service water temperature, set in the hot service water temperature program (Prt), appears on the LCD.

Turning the “**↖**” button, change the required temperature and press the “**Esc**” button to return to the main menu.

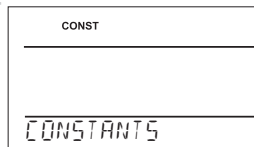
0 = off, range from **10 to 65 °C, by 1 °C**.



## CONST (CONSTANTS)

Setting the control parameters.

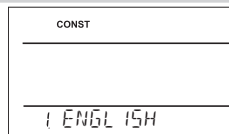
Press twice the “**MENU**” button, choose the CONST mode by turning the “**\**” button, and press the “**↻**” button to confirm.



### 1 CESHY (Czech language set by default)

Language selection (CZ/PL/EN/DE/RU/SK).

Choose the language by turning the “**\**” button and press the “**↻**” button to confirm.

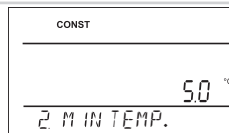


### 2 MINIMUM CONTROL TEMPERATURE (5 °C set by default)

The temperature limit below which the programmed temperature cannot be set.

Choose within the range **from 3 °C to 10 °C** (by 0.5 °C).

Set the value by turning the “**\**” button and press the “**↻**” button to confirm.

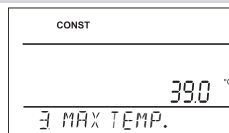


### 3 MAXIMUM CONTROL TEMPERATURE (39 °C set by default)

The temperature limit above which the programmed temperature cannot be set.

Choose within the range **from 15 °C to 39 °C** (by 0.5 °C).

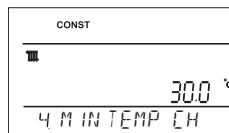
Set the value by turning the “**\**” button and press the “**↻**” button to confirm.



### 4 MINIMUM CENTRAL HEATING TEMPERATURE (30 °C set by default)

This defines the lower limit of the required heating water temperature, as calculated by the thermostat, at which the boiler can start heating. This constant hinders unnecessary ignition of the boiler. Choose within the range **from 5.0 °C to 50.0 °C** (by 1.0 °C).

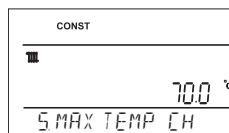
Set the value by turning the “**\**” button and press the “**↻**” button to confirm.



### 5 MAXIMUM CENTRAL HEATING TEMPERATURE (70 °C set by default)

This defines the upper limit of the required heating water temperature, as calculated by the thermostat, which the boiler must not exceed. The maximum-minimum temperature difference must be higher than 8 °C. Choose within the range **from 13.0 °C to 85.0 °C** (by 1.0 °C).

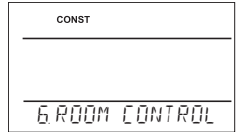
Set the value by turning the “**\**” button and press the “**↻**” button to confirm.





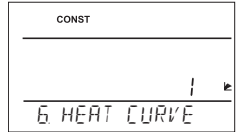
## 6 CONTROL TYPE SELECTION ("ROOM CONTROL" set by default)

**ROOM CONTROL = PI control** (according to the internal temperature),  
The thermostat is heating according to the reference room temperature. You must set the PI control parameters – constants No. 7 and 8!!



1 - 60 =

**EQUITHERM control**, the 1 to 60 number corresponds to the required heating curve (see page 10). If choosing the equitherm control, follow the instructions stated at the heating curve graph.



Select the control type by turning the "↖" button and press the "⊕" button to confirm.

## PI CONTROL SELECTED, CONSTANT NO. 6 SET "BY ROOM":

### 7 CONTROL INTERVAL OF PI CONTROL (10 minutes set by default)

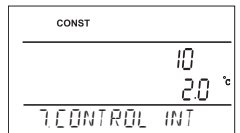
To be selected according to the object thermal inertia.

The optimum setting is usually 10 to 15 minutes.

Selectable range of **5 to 20 minutes** (by 1 min).

*The interval length in minutes influences the system oscillation.*

*The lower the value, the higher the risk of oscillations.*



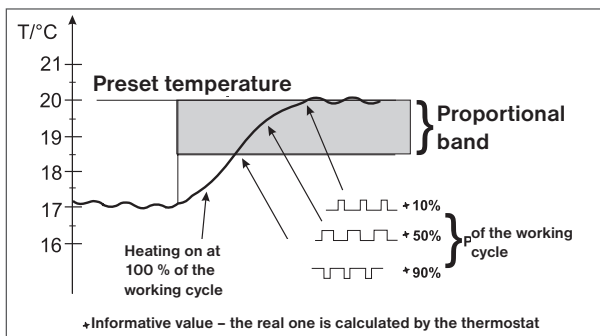
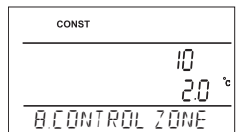
Set the value by turning the "↖" button and press the "⊕" button to confirm.

### 8 CONTROL BAND OF PI CONTROL (2 °C set by default)

Only if PI control is selected (constant 6 = without equitherm)

The so-called "proportional band" specifies the moment at which the thermostat starts limiting the central heating temperature (when the PI control starts). Selectable range of **0.5 °C to 3.0 °C** (by 0.1 °C).

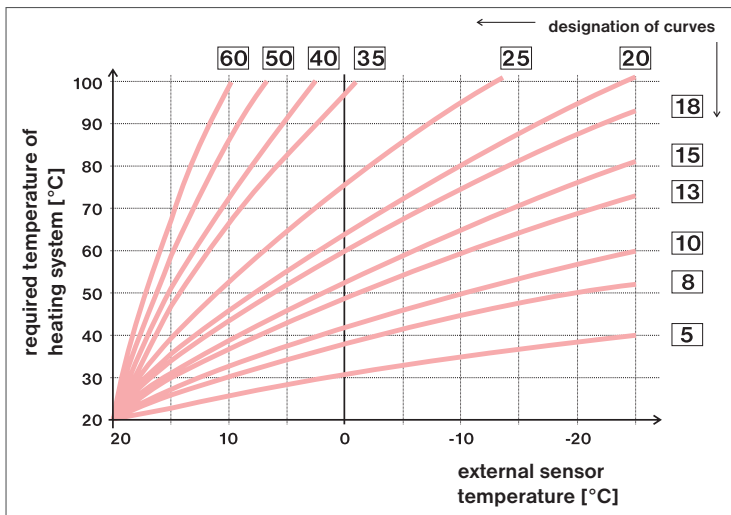
Set the value by turning the "↖" button and press the "⊕" button to confirm.



**EQUITHERM CONTROL SELECTED, CONSTANT NO. 6 SET TO „1-60“ :**

If this control is selected, the external sensor **delivered with the boiler** must be installed!

*It is suitable to choose the equitherm control for large objects in which no reference room can be specified. The equitherm control principle consists in optimisation of the heating system water temperature according to the external temperature. This relationship is visualized by the below equitherm curves (for the required room temperature of 20 °C), according to which the required temperature of the heating system water is selected. The thermostat calculates the heating water temperature according to the equitherm curve selected, and then sends it to the boiler. Next, the boiler maintains the water temperature at the required value. To prevent permanent over- or underheating of the object, you must choose the curve steepness according to the heating system. Selection of the correct curve for the given system is a long-term task, and the system must be tested at various external temperatures! It is suitable to adjust the internal temperature in the rooms, for example, by thermostatic heads control. **The heating system water temperature is restricted by the min. and max. limit set by the constants No. 3 and 4!** During this control, the external sensor must always be connected to the boiler!*



If you choose a required room temperature different from 20 °C, the thermostat automatically calculates a curve shift according to the following formula, where the coefficient is 1 :

$$\text{shift} = (\text{required temperature} - 20) * \text{coefficient}$$

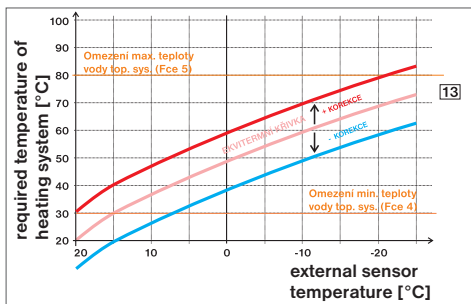
*Note: The curve most frequently used in our conditions is approx. 9-11 for low-temperature systems, and approx. 15-17 for classical heating systems.*

**9 SHIFT OF THE CURVE** (value 5 set by default)

**1 - 20 = manual correction by coefficient**, can be used if the temperature is still not according to your requirements (by 0.5).

If you choose the manual correction, set the heating curve shift coefficient, at which you will achieve the heating water control according to the current external temperature (the above formula) at various required temperatures in the reference room.

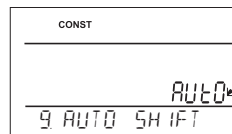
CONST
5
9 SHIFT OF CURVE



**The example** describes selection of the equitherm curve No. 13 (pink) and its correction calculated with the coefficient 2.5 (for required temperatures in 24 °C and 16 °C room). Thus you can achieve optimum system settings at which the heating system water temperature is controlled according to the current external temperature.

**AUTO** = **automatic correction**, according to the internal temperature measured in the reference room. This option can only be used after a correct equitherm curve has been selected!

Select the correction by turning the “↖” button and press the “⊕” button to confirm.

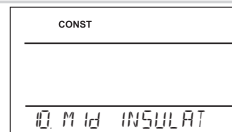


*During this control, the heating curve is automatically corrected depending on both the external temperature and the current temperature in the reference room where the thermostat is located. Thus you can achieve a higher temperature comfort in the heated room, optimum operation of the heating system, and thus also higher savings! For this control, the external sensor must always be connected to the boiler and constant No. 9 must be set to “AUTO”!*

## 10 BUILDING INSULATION (“middle” set by default)

The speed of temperature change in the room at frequent variations of external temperature depends on the building structure and insulation. This constant enables you to take the temperature change speed into account according to the type of the building heated (at equitherm control only).

**bad** = uninsulated building, quick response to external temperature changes  
**middle** = insulated building, slower response to external temperature changes  
**good** = well insulated building, slowest response to external temperature changes  
 Set the type by turning the “↖” button and press the “⊕” button to confirm.

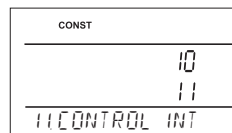


## 11 CONTROL INTERVAL OF EQUITHERM CONTROL (10 minutes set by default)

Selected according to thermal inertia of the object. The optimum setting is usually 10 to 15 minutes. Selectable range **5 min to 20 min** (by 1 min).

*The interval length in minutes influences the system oscillation. The lower the value, the higher the risk of oscillations.*

Set the value by turning the “↖” button and press the “⊕” button.

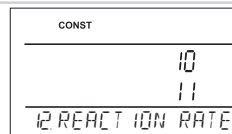


## 12 RESPONSE SPEED (value 11 set by default)

It is only active in case of selection of equitherm control with automatic correction according to external temperature! This determines how quickly the required temperature is achieved. The selectable range is 1 to 16 (by 1).



*If the response speed is 1, the required temperature is achieved slowly, which prevents a possible overswing, but the required temperature is achieved later. If the response speed is 16, the heating up to the required temperature in case of its change is immediate, but overswing occurs.*

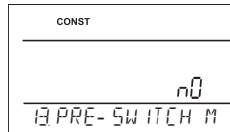
Set the value by turning the “↖” button and press the “⊕” button.




### 13 PRELIMINARY SWITCH-ON OF HEATING (NO set by default)

This function guarantees you the required temperature at the required time. You need not consider when to switch the heating on in order to be warm when getting up in the morning without heating unnecessarily long in advance. You just need to set the temperature program in the Prog mode and enable this function. Within two operating days, the program ascertains the thermal constants of the room and then it switches the heating on in advance sufficiently. The preliminary switch-on time is limited to 2 hours.



Set YES/NO by turning the “” button and press the “” button to confirm.

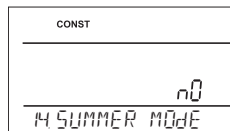


### 14 SUMMER MODE (NO set by default)

In this mode, you are not allowed to switch the heating on. It can particularly be used in the summer period, when you need not heat. After you enable this mode, the “” symbol appears on the display.

**Note:** The anti-freeze protection (3 °C) and the hot service water function are still enabled. In this mode, you cannot change the temperature or set the holiday mode!



Set YES/NO by turning the “” button and press the “” button to confirm.

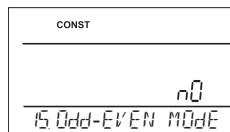


### 15 EVEN-ODD WEEK SELECTION (NO set by default)

If you choose “YES”, the programs PrU and PrL will alternate automatically according to the current week (even/odd).



This setting is suitable, for example, for shift operation (the requirements on thermal comfort in the object change every week).

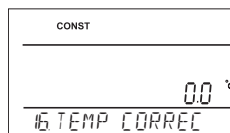
Set YES/NO by turning the “” button and press the “” button to confirm.



### 16 TEMPERATURE CORRECTION (0 °C set by default)



This is used for correcting the temperature measured by the thermostat. The setting can only be done after 12 hours of operation, when the internal sensor temperature has settled. Measure the ambient temperature with a thermometer; if it is different from the temperature on the thermostat, set the correction within the range of **-5 °C do +5 °C**.

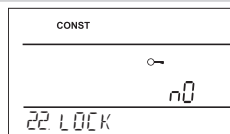
Set the correction by turning the “” button and press the “” button to confirm.



### 22 KEY LOCK (NO set by default)

This is used for locking the controls as a protection against undesirable interference of a foreign person.

Set YES/NO by turning the “” button and press the “” button to confirm.



## 23 KEY CODE

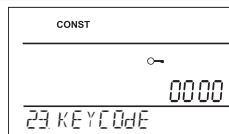
This constant can be set if CONST 22 = YES. It is used for setting the code by which you will be able to activate the controls.

Set a four-digit combination (range from 0 to 9).

The keys will be locked within 1 minute (after opening the basic display). The "⊖" symbol appears on the LCD.

If you press the "⊕" or "Esc" button, the LCD asks you to enter the key code; after entering the correct code, you are able to make any changes (the controls are functional again).

Gradually set 4 digits by turning the "↖" button; confirm each setting with the "⊕" button.



**YOUR CODE**

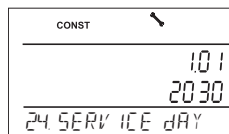
**RECOMMENDATION:** - record the key code in the table

- you can cancel the code by setting CONST 22 to NO, or by restoring the default settings of the thermostat (see CONST 28).

## 24 BOILER INSPECTION REMINDER (1.1.2030 set by default)

Set the date on which you want to be informed about the necessity of the prescribed boiler service. At the required time, the "MAINTENANCE NECESSARY" message and the "↖" symbol will appear on the bottom line of LCD (you can cancel the message by setting a new date for the next boiler maintenance!).

Gradually set the day, month and year by turning the "↖" button, confirm each setting with the "⊕" button.

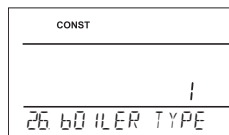


## 26 BOILER TYPE (1 set by default)

Possibility of selecting a boiler which has the OpenTherm communication adjusted.

- 1 - universal (suits most boiler types)
- 2 - Thermona gas boilers
- 3 - Thermona electric boilers
- 4 - Ferolli
- 5 - Viessmann

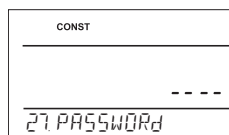
Choose the boiler type by turning the "↖" button and confirm with the "⊕" button.



## 27 PASSWORD (not set by default)

It is used for locking the constants related to the given control settings. **Suitable for service technicians. After a numerical code has been entered, the user cannot change constants No. 6, 7, 8, 9, 10, 11, 12 and 26.** When entering the mode CONST and browsing in the constants you can see symbol key „⊖“, which appear near the constants. These constants are blocked and you must to know password for change the constants!

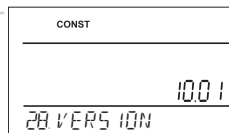
Turning the "↖" button, gradually enter four digits and confirm each setting with the "⊕" button.



## 28 VERSION (restoring the default settings)

Firmware version, informative parameter only.

If you press the "Esc" button long (for about 3 s), the RESET message appears shortly on the LCD and the thermostat returns to the default settings!



# ROOM THERMOSTAT with OpenTherm+ communication

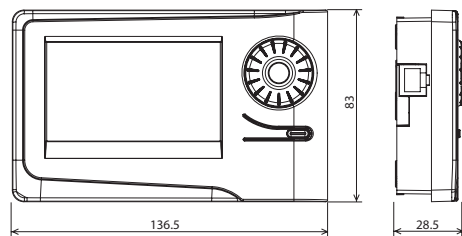
# PT52

PT52 offers new possibilities of controlling boilers with the OpenTherm Plus communication. The selected language menu with list of functions facilitates and quickens work during setting the controller in your system. The OpenTherm communication enables optimum operation of the boiler and heating system including hot service water, which results in longer boiler life and higher savings.

## Characteristics:

- ▶ 9 weekly programs for central heating
- ▶ 6 temperature changes per day
- ▶ 1 weekly program for hot service water (3 temperature changes per day)
- ▶ programming by 10 minutes and 0.5 °C
- ▶ possibility of programming day-by-day or Mon-Fri, Sat-Sun and Mon-Sun
- ▶ large backlit graphic display
- ▶ control type selection (PI control or equitherm control)
- ▶ preliminary heating switch-on function
- ▶ quick change of the required C.H. temp.
- ▶ quick change of the required D.H.W.temp.
- ▶ manual mode (MANU)
- ▶ permanent shut-off (OFF)
- ▶ HOLIDAY mode
- ▶ summer mode
- ▶ even-odd week selection
- ▶ current temperature correction
- ▶ key lock
- ▶ service password (to lock the control constants settings)
- ▶ indication of calculated and current temperature of central heating
- ▶ indication of the boiler modulation output in %
- ▶ operating hours sum for central heating and hot service water
- ▶ boiler maintenance indication
- ▶ anti-freeze protection (3 °C)
- ▶ automatic SUMMER / WINTER time changeover
- ▶ clock operation backup for about 8 hours

## Dimensions:



## CERTIFICATE OF GUARANTEE

(guarantee period for the product amounts to 2 years)

product No.:	date of sale:
examined by:	stamp of shop:

## Technical parameters

Power supply	through the OT+ communication line from the boiler
Communication line length	twin-lead max. 50 m
Communication line polarity	without polarity
Communication type	two-way, OpenTherm Plus
Min. program. time of C.H.	10 minutes
Min. program. time of H.W.	1 hour
Adjustable temp. range	3 to 39°C
Adjustable temp. range C.H.	5 to 85°C
Adjustable temp. range D.H.W.	0, 10 to 65°C
Measurement accuracy	±0,5°C
Protection class	IP20
Relative humidity	< 85% RH
Working temperature	0°C to +40°C



In case of guarantee or post-guarantee service, send the thermostat to the manufacturer's address.



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