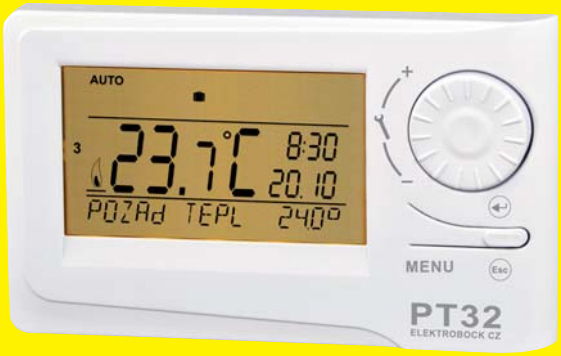
INTELLIGENT ROOM THERMOSTAT

PT32

- **LARGE BACKLIT DISPLAY**
  with intuitive navigation in CZ/PL/EN/DE/RU/SK
- **9 WEEKLY PROGRAMS**
  and 6 temperature changes per day
- **HYSTERESIS/ PI/PID REGULATION**
  selection according to the heating system
- **OPTIMALISATION OF OPERATION**
  preliminary switch-on function
- **ENERGY SAVINGS UP TO 30%**
  quick investment return



REMOTE CONTROL BY MEANS OF MOBILE PHONE

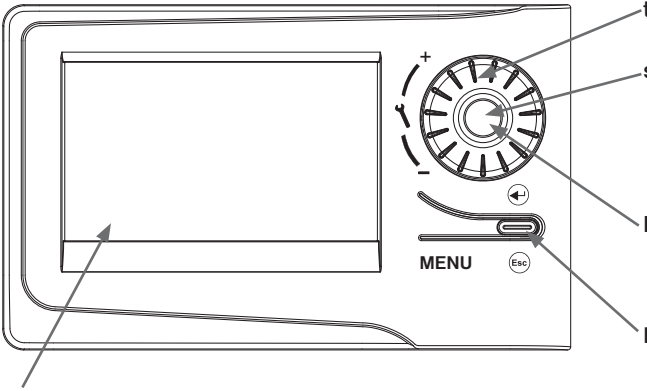
by extending the thermostat with the GST1 or GST2 module (not included in PT32)

ELEKTROBOCK CZ
MADE IN CZECH REPUBLIC

DESCRIPTION

PT32 is an intelligent digital room thermostat with a backlit display. Its advantages involve a quick change in the desired temperature by simply turning the wheel, and possibility of setting up to 9 weekly programs with 6 temperature changes per day.

Control elements



turning
= change of the temperature set

short push
= choice confirmation (entry)
= quick change of the temperature or program desired, viewing the running hours (see page 4)

long push
= step back (only in the CONST mode see pages 8-13)

push
= opening the main menu or return a step back

Backlit display
if any button is pushed, the backlit switches on automatically for 5 s at least

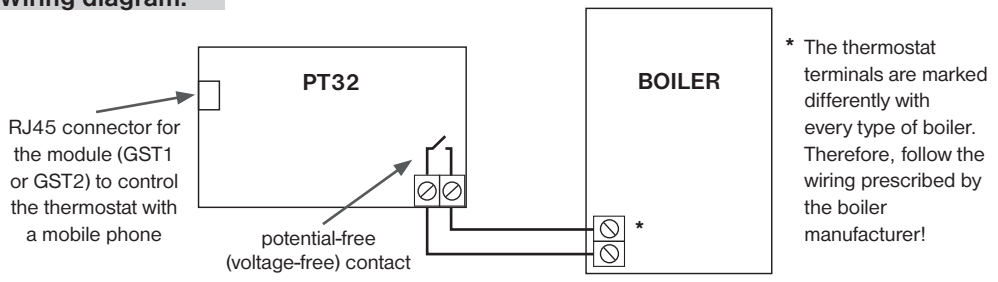
INSTALLATION AND LOCATION

Install the thermostat at a suitable place where its operation cannot be affected by direct flow of hot air from the heater, sunshine or other disturbing effects. Do not install it on an external wall either. The installation height should be approx. 1.5 m above the floor. Place the thermostat in the "reference room", such as the living room (the heating source will switch according to the temperature in this room).

The installation must only be done by a properly qualified person!
Before installation, disconnect the power supply!

1) Switch off the main circuit breaker.
2) Remove the control part from the lower cover of the device (Fig.1, page 3).
3) Chip away the central plastic piece from the lower cover to lead in conductors.
4) Run the conductor through the hole and connect it to the terminal acc. to the diagram.
5) Fasten the lower cover to the wiring box with screws (Fig. 2, page 3).
6) Batteries are located at the back of the control part. Remove their protective paper (on first use), or insert new batteries (follow the instructions on page 3).
7) Mount the control part on the lower cover.
8) Switch on the main circuit breaker and test correct connection of the thermostat, see page 12 (TEST).
9) Upon first start (or reset), the thermostat displays "**SET CLOCK**", set the current time and date according to page 5. After that select language see page 8.

Wiring diagram:



* The thermostat terminals are marked differently with every type of boiler. Therefore, follow the wiring prescribed by the boiler manufacturer!

Fig.1

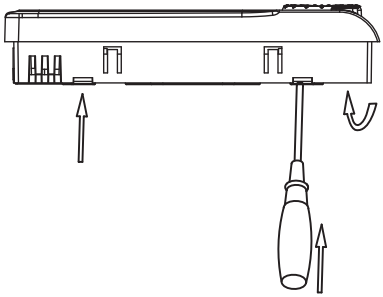


Fig.2

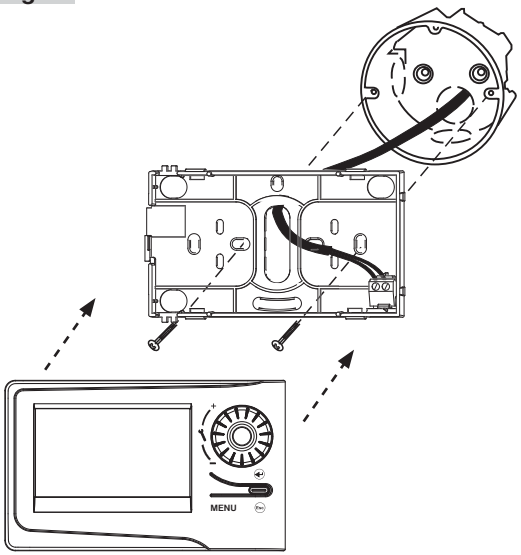
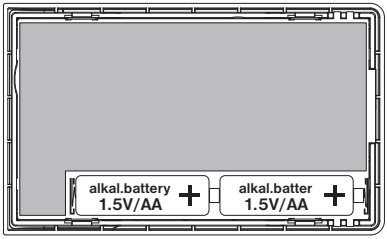


Fig.3



BATTERY REPLACEMENT

As soon as " ▬ " appears on the display, you must replace the batteries.

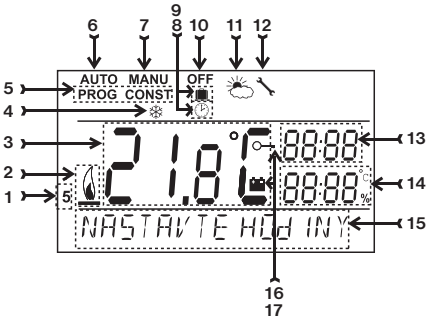
1) Remove the control part from the lower cover of the device (Fig. 1).
2) Replace the batteries. Heed the correct polarity marked in the battery compartment (Fig. 3). **After removing the batteries, all setting of the thermostat are saved in the E-EPROM memory. You only have to set the time (page 5)!**

Always use the **type AA, 2 x 1.5 V**, alkaline batteries!

Recommendation: Check the batteries before every heating season!

Dispose of old batteries in conformity with regulations on hazardous waste treatment!

LCD DESCRIPTION



1, Current day (in the Prog mode, selection of days to be programmed)
2, Heating on indication
3, Current room temperature
4, Anti-freeze temperature
5, Modes for setting programs (PROG) and constants (CONST) (page 6-13)
6, Automatic mode (page5)
7, Manual mode (page 5)
8, Clock setting mode (page 5)
9, Holiday mode (page 5)
10, Permanent shut-off (page 5)
11, Summer mode (page 10)
12, Boiler inspection indication (page13)
13, Current time
14, Current date (various parameters in the CONST mode; for details, see page 6)
15, Status line, dynamically changing according to the process running
16, Key lock indication (page 12)
17, Low battery indication

HINTS FOR THE USER

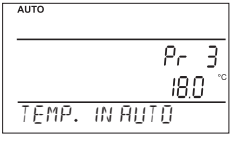
QUICK CHANGE OF THE DESIRED TEMP. / PROGRAM

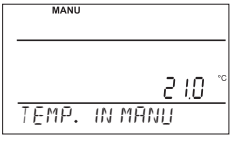
Press the "⏎" button twice, the desired temperature starts blinking on the display. Change the temperature by turning the " 🔧 " button, and press the" ⏎ " button.

In the AUTO mode, the change lasts until the next program change.

Another program can be selected in this mode in the same way.

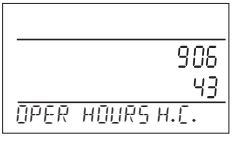
In the MANU mode, the change is permanent.





OPERATIONAL HOURS

Push the " ⏎ "button four times. The boiler operating hours appear on the LCD. The figure on the picture means 906 hours 43 minutes.



Resetting the counter:

When operational hours are displayed, turn the " 🔧 " button anti-clockwise.

OPERATIONAL MODES

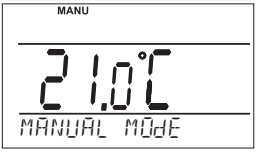
The first push of any button activates the display backlight. Pushing the“ **MENU** “ button shortly again, you open the main menu where you can choose the operational mode.

AUTO (the Pr3 weekly program is factory-set, see page 7)

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

Press the “**MENU**“ button twice; select the **AUTO** mode by turning “ ”, and confirm with the“ ” button.

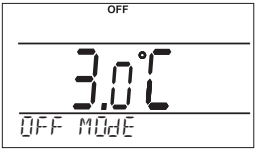
MANU (the 21 °C temperature is factory - set)



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

Press the “**MENU**“button twice; select the **MANU** mode by turning “ ”, and confirm with the“ ” button.

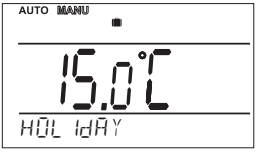
OFF (anti-freeze temperature of 3 °C is kept – cannot be changed)



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

Press the “**MENU**“ button twice; select the **OFF** mode by turning “ ”, and confirm with the“ ” button.

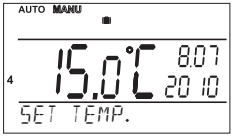
HOLIDAY



The thermostat keeps the temperature preset until the given date and time. When the preset time lapses, it automatically returns to the last-selected AUTO/MANU mode before the holiday.

Press the “**MENU**“ button twice; select the mode by turning “ ”, and confirm with the“ ” button.

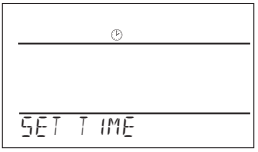
Stepwise, set the temperature which the thermostat should keep during the holiday, time and date of your return from the holiday. Change the values by turning“ ”, and always confirm them pushing the“ ” button.



When the setting is finished, press the “ Esc “ button to return to the basic screen.

Note: You can cancel the holiday mode any time by choosing another AUTO or MANU mode.

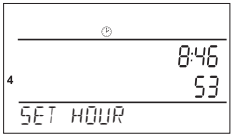
CLOCK SETTING



Setting the current time and date.

Press the “**MENU**“ button twice; select the **CLOCK** mode by turning “ ”, and confirm with the “ ” button.

Change the values turning the “ ” button. Always push the “ ” button to confirm (the value set is always blinking; the “ Esc “ button returns you to the menu).



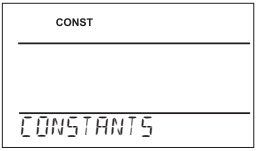
PROG (PROGRAMMING)

9 weekly programs with 6 changes per day can be preset. The Pr1 and Pr2 programs are blank; Pr3 to Pr 7 are factory-set. The PrU and PrL programs are factory-set as well, intended for the EVEN/ODD week selection (see page 7,10 for details).

CONST (CONSTANTS)

Setting the control parameters. For a detailed description, see page 8 -13.

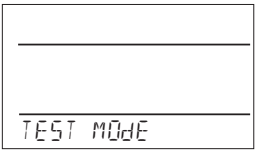
Press twice the "**MENU**" button, choose the **CONST** mode by turning the " 🔧 " button, and press the" ↵ " button to confirm.

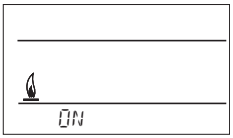


TEST

Testing the correct connection to boiler.

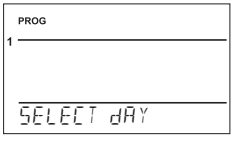
Press twice the "**MENU**", choose the **TEST** mode by turning the " 🔧 " button, and press the " ↵ " button to confirm (RELAY TEST is showed on LCD). Turn the " 🔧 " button to start testing.
The output relay will be switched on/off several times
(the ON/OFF messages appear on the LCD).

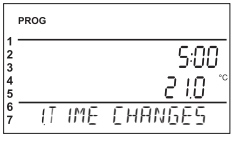




PROGRAM SETTING MODIFICATION

Press the "**MENU**"button twice; select the PROG mode by turning the " 🔧 " button, and confirm with the " ↵ " button.
The selected program number is blinking on the display. Choose the program you wish to modify by turning the " 🔧 " button, and confirm with the " ↵ " button. By turning the " 🔧 " button, choose the number of days programmed (you can program "day-by-day" or "1-5 = Mon-Fri", "6-7 = Sat-Sun" or "1-7 = Mon-Sun").
Confirm with the " ↵ " button.
The **Change 1 time** starts blinking. Set the time by turning the " 🔧 " button, and confirm with the " ↵ " button. Enter temperature for this time by turning the " 🔧 " button, and confirm with the " ↵ " button again. The **Change 2 time** appears on the display. Proceed in the same way as with the first time change.
In this way, you can set **up to 6 temperature changes per day**.
To move one step back, push the " Esc "button shortly; to return to the basic screen, push the" Esc " button long.





After modifying the preset program, check whether all of the changes set comply with your requests!
There is no need to apply all six changes in one day!

Tables of temperature programs

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	08/21	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			

Note:

The 5/21 entry means that the temperature of 21 °C is requested at 5 o'clock

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			

All of the programs given can be modified!

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				

CONSTANTS SETTING

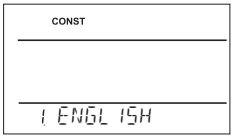
Press the " **MENU** "button twice; select the CONST mode by turning the " 🔧 " button, and confirm with the " ⏎ "button.

Set the constants depending on the type of building being heated, boiler and heating system. For select the type of regulation we recommend you consulting with an expert.
Against undesirable usage of strange person we recommend using CONST19 (password).

1 CESKY (Czech is factory preset)

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

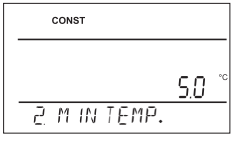
Choose the language by turning the" 🔧 " button, and confirm with the" ⏎ " button.



2 MINIMUM CONTROL TEMP. (factory setting of 5°C)

Here you can set the limit of the minimum adjustable temperature. When using the GSM module, you will be informed by an SMS that the room temperature has dropped below this value. Select within the range **from 3°C to 10°C** (by 0.5°C).

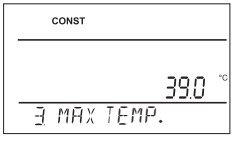
Set the value by turning the" 🔧 " and confirm " ⏎ ".



3 MAXIMUM CONTROL TEMP. (factory setting of 39°C)

Here you can set the limit of the maximum adjustable temperature. When using the GSM module, you will be informed by an SMS that the room temperature has risen above this value. Select within the range **from 15°C to 39°C** (by 0.5°C).

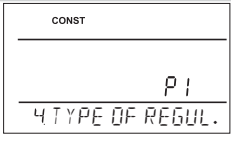
Set the value by turning the" 🔧 " and confirm " ⏎ ".



4 CONTROL TYPE (PID-regulation is factory preset)

Selection of the control type:

Choose the type of control by turning the " 🔧 " button and press the " ⏎ " button to confirm.



HS = Hysteresis

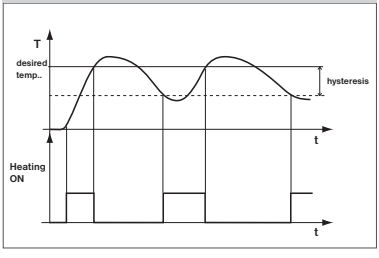
Difference between the desired and current temperature.

If the hysteresis is 1 °C and the desired temperature is 20 °C, the thermostat switches off at 20 °C, and on at 19 °C (see the graph).

For correct hysteresis function, set the parameters according to the heating system type; see **CONST 5**.

Note: If hysteresis is selected, CONST 6 is skipped automatically.

HYSTERESIS

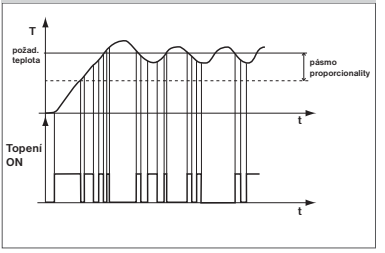


PI = proportional-integral control

The PI-control principle consists in comparison of the current room temperature with the desired temperature. The PI-control aims at achieving and maintaining the desired temperature without overshooting (see the graph). For correct function of the PI-control, set the control parameters according to the type of the heating system with respect to the room thermal inertia; see **CONST 6**.

Note: If the PI-control is selected, CONST 5 is skipped automatically.

PI-CONTROL

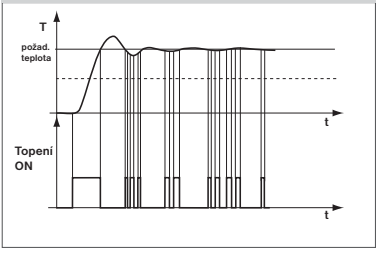


PID = proportional-integral-derivative control

The PID-control principle consists in continuous comparison of the current room temperature with the desired temperature, and automatic adaptation of the controller to the given conditions. This is the most perfect continuous control; you can achieve not only short control time, but also high accuracy without permanent control deviation. The minimum switch-on time is internally set to 2 minutes, the proportional band is 2 °C, the time interval is automatically recalculated according to current temperature conditions.

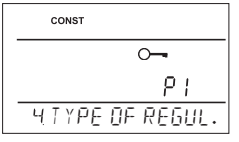
Note: If the PID-control is selected, CONST 5 and CONST 6 are skipped automatically.

PID-CONTROL



Note: The graphs are just tentative; the real control course differs according to current conditions in the measured object!

CAUTION! ONLY IN CASE OF LOCKING BY PASSWORD (see CONST19)
If the " 🔑 " key symbol appears on the LCD, the constant selected cannot be modified and you must know the PASSWORD (page13, CONST19). You can change the constant after entering the password. After you exit the CONST mode, the security lock of the constants related to the control will be activated automatically.

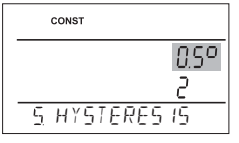


5 SETTING HYSTERESIS PARAMETERS

HYSTERESIS (factory setting of 0.5°C)

Set **from 0.1 to 6 °C**. According to the value preset, the thermostat switches on at the temperature:
T switching = T required - HYSTERESIS

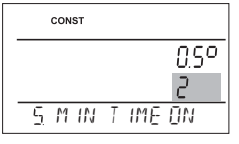
Choose the hysteresis by turning the " 🔧 " and confirm " ↵ ".



MINIMUM SWITCH-ON TIME (factory setting of 2 min)

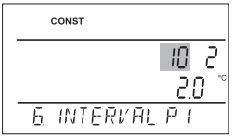
Here you can set the minimum switch-on time of the boiler in minutes at hysteresis. Select within the range **from 1 to 5 minutes** according to the type of the heating system used (see the table).

Set the value by turning the " 🔧 " and confirm " ↵ ".



Heating type	Minimum source switch-on time
Electric heating	1
Plate radiators	2 (3)
Cast iron radiators	4
Floor heating	5

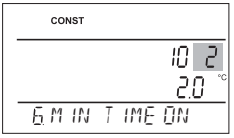
6 SETTING PI-CONTROL PARAMETERS



PI-CONTROL INTERVAL (factory setting of 10 min)

Select according to the object's thermal inertia.
The optimum setting is within the range of 10 to 15 min.
The adjustable range is **5 min to 20 min (by 1min).**

Set the interval by turning the " 🔧 " and confirm " ⏎ ".

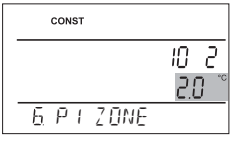


MINIMUM SWITCH-ON TIME (factory setting of 2 min)

Select within the range **of 1 to 5 minut.** The setting is determined by the heating system type, and depends on the PI-control time period selection. Setting according to the table is recommended.

Heating type	Minimum source switch-on time
Electric heating	1
Plate radiators	2 (3)
Cast iron radiators	4
Floor heating	5

Set the value by turning the " 🔧 " and confirm " ⏎ ".

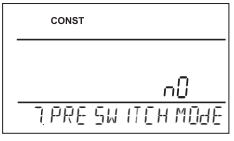


PI-CONTROL BAND (factory setting of 2 °C)

This value determines the temperature at the which the PI-control starts functioning. For example, the desired temperature is 22 °C, the proportional band is 1.5 °C. Up to 20.5 °C, the source heats fully. When this value is reached, the PI-control starts. The PROPORTIONAL band can be set **within the range of 0.5 to 3.0 °C (by 0.1 °C).**

Set the PI band by turning the " 🔧 " and confirm " ⏎ ".

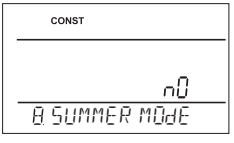
7 PRELIMINARY START OF HEATING (factory setting of NO)



This function provides for the desired temperature at the desired time. You do not need to consider when to switch on the heating to be warm when getting up in the morning without heating up long before uselessly. You just program the time when you want the desired temperature. In two days' operation, the thermostat ascertains thermal constants of the room, and then switches the heating in advance as necessary. The preliminary switch-on time is limited to 2 hours.

Choose YES/NO by turning the" 🔧 " and confirm " ⏎ ".

8 SUMMER MODE (factory setting of NO)

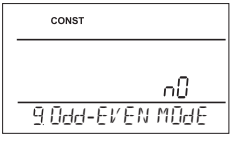


Switching the heating on is not permitted in this mode. Particularly, this can be used in the summer period, when heating is unnecessary. After enabling the mode, the " ☀ " symbol appears on the display.

Note: The anti-freeze protection (3 °C) is still functional. In this mode, you cannot change temperature or set the holiday mode!

Choose YES/NO by turning the" 🔧 " and confirm" ⏎ ".

9 EVEN-ODD WEEK SELECTION (factory setting of NO)



If you choose YES, the PrU and PrL programs will alternate automatically according to the week (even / odd). This setting is advantageous, for example, for work in shifts (requirements on thermal comfort in the object change every week).

Choose YES/NO by turning the" 🔧 " and confirm" ⏎ ".

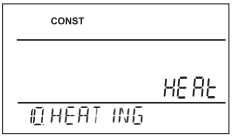
10 HEATING / COOLING (factory setting of HEATING)

Setting of the thermostat functions.

HEATING = if the current temperature value falls below the desired one, the output relay (for heating systems) switches on.

COOLING = if the current temperature value exceeds the desired one, the output relay (for cooling systems) switches on.

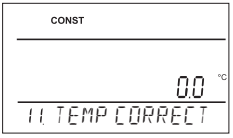
Choose HEAT/ COOL by turning the“ 🔧 “ and confirm “ ⏎ “.



11 TEMPERATURE CORRECTION (factory setting of 0 °C)

Used to correct temperature measured by the thermostat. Setting must earliest be done after 12-hour operation when the internal sensor temperature has settled. Measure the room temperature with a thermometer. If it differs from the thermostat temperature, set correction within the range **from -5°C to +5°C**.

Set the correction by turning the“ 🔧 “ button, and confirm with the “ ⏎ “ button.



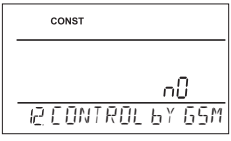
12 USE GSM (factory setting of NO)

This constant selects the possibility of thermostat control via a GSM module.

NE GSM module disabled

ANO GSM module enabled. Set CONST tEL nO and CONST13!

Choose YES/NO by turning the “ 🔧 “ and confirm“ ⏎ “.



Note: If you choose YES and do not connect a module, the “GSM UNCONNECTED” notice appears on the LCD basic screen. The GSM module control is described in detail in the GST1(2) instructions.

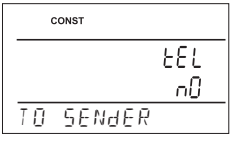
tEL nO PHONE NUMBER SETTING

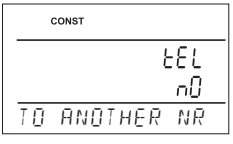
This constant can be set if CONST12 = YES. It specifies the possibility of connecting a GSM module for control by means of a mobile phone. **Allows the following options:**

1) TO SENdER = SMS will be sent back to the telephone number from which the message was sent.

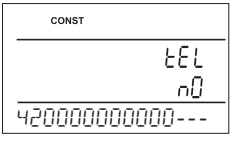
2) TO ANOTHER NR = SMS will be sent back to the telephone number entered in the thermostat.

3) bOTH NUMbERS = SMS will be sent back to both telephone numbers (combination options 1 and 2).





When choosing 2) and 3) option we enter a phone number n the international format (420123456789), to which return SMS messages on the thermostat condition should be sent. Is possible to enter a phone number min. 10-digit to 15-digit.

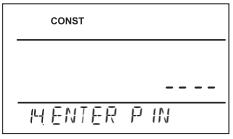


For automatically receiving SMS about exceeding the limits (CONST2 and CONST3) is required to enter the phone number into the thermostat option 2) or 3).

Turning the “ 🔧 “ button, enter the phone number stepwise; confirm each setting with the “ ⏎ “ button.

13 PIN CODE SETTING

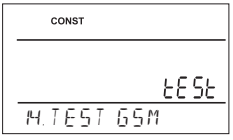
This constant can be set if CONST12 = YES. It specifies the possibility of connecting a GSM module for control by means of a mobile phone. **Enter the PIN code of the SIM card inserted in the GST1 or GST2 module.**



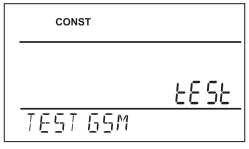
Turning the " 🔧 " button, enter 4 digits stepwise; confirm each setting with the " ↵ " button.

14 GSM TEST

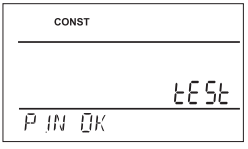
After setting the PIN code of the SIM card inserted in the thermostat is performed to test the GSM module and PIN validation.



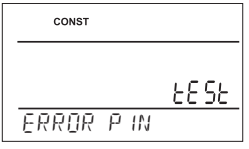
Turning the " 🔧 " button to start test of GSM module and checking of PIN code.
The" ↵ " button displays the next constant,; pushing " Esc " you return to the main menu.
One of the following messages appears on the thermostat after connecting GSM module and turning " 🔧 " button:



Checking the GSM module.



Modul is connected and PIN is entered correctly.

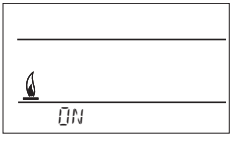


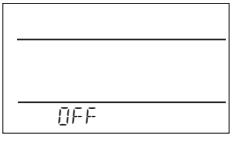
Wrong PIN, reset PT32 and connect module again.

15 RELAY TEST

Testing the correct connection the thermostat to boiler (this function is identical with the TEST mode in the main menu).

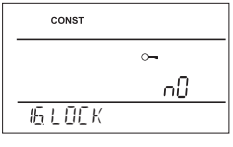
Start the test by turning the " 🔧 " button. The output relay is switched on/off several times (the ON/OFF messages appear on the LCD). The " ↵ " button displays the next constant; pushing " Esc " you return to the main menu.





16 KEY LOCK (factory setting of NO)

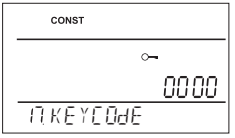
Used for locking control elements as a protection against undesirable intervention by a stranger.



Choose YES/NO by turning the " 🔧 " and confirm " ↵ ".

17 KEY CODE

This constant can be set if CONST16 = YES. It enters a code used for enabling control elements.
A 4-digit combination is set (range from 0 to 9).
The keys are locked within 1 minute (after opening the basic screen). The " ⚷ " symbol appears on the LCD.
After you push the " ↵ " or " Esc " button, the LCD asks you to enter the key code; after entering the correct code, you can make any modifications (control elements are functional again).



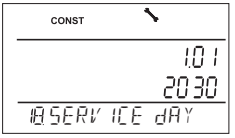
YOUR CODE

Turning the " 🔧 " button, enter 4 digits stepwise, and confirm each setting with the " ↵ " button.

RECOMMENDATION: - Note the key code in the table
- You can cancel the code by the NO option in CONST16 or by restoring the factory setting of the thermostat (see CONST 20).

18 BOILER OVERHAUL NOTIFICATION (factory set to 01/01/2030)

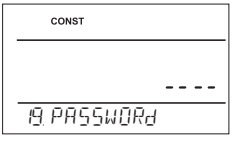
Set the date on which you want to be reminded of the prescribed boiler service. On the desired date, the "MAINTENCE NECESSARY" message and the " 🔧 " symbol appear in the LCD bottom line (the message can be cancelled by entering the next boiler overhaul date!).



Turning the " 🔧 " button, enter the day, month and year stepwise; confirm each setting with the " ↵ " button.

19 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. 4, 5, 6 and 10.
If you open the CONST mode and browse the constants, the " ⚷ " symbol appears next to the constants locked; if you turn the " 🔧 " button, the password is required! Unless you enter the password, the constants remain locked. To try to unlock them again, you must exit the CONST mode and browse up the constant locked again.

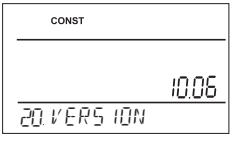


Turning the " 🔧 " button, gradually enter four digits and confirm each setting with the " ↵ ".

20 VERSION (factory setting restoration)

Firmware version, for information only.

If you push the " Esc " button long (for approx. 3 s), the RESET text appears shortly on the LCD, and the thermostat restores its factory settings!



INFORMATION IN THE LCD DYNAMIC LINE

REQUIR TEMP	Information on the desired temperature preset
PROGR 3 PERIOd 2	Information on the program preset (e.g., 3) and the time interval running (interval 2)
HOLIdAY IN 22.7	Only displayed in the holiday mode; informs on the end of holiday when the thermostat restores the last selected AUTO/MANU mode.
SMS RECEIVEd	Information the thermostat received new SMS
SIGNAL GSM x	Determines the signal strength at the place where the thermostat is located; where x is a value within the range from 0 to 5 (with GSM module): 0..undeterminable or no signal detected 1..worst level 5..best level of signal

USING GSM MODULE (GST1 or GST2)

The PT32 thermostat can be controlled by means of a mobile phone by simply extending it by the GST1 or GST2 module (not included – must be purchased). For correct commissioning, the following procedure must be followed:

1) Mount and set the PT32 thermostat according to the instructions.
2) Set CONST12 to YES (use GSM); then, set CONST tEL nO and CONST14 according to the instructions on page 11-12.
3) Insert an activated SIM card in the GST1 (or GST2) module.
4) Interconnect the thermostat and GSM module with a data cable (delivered with GST1 or GST2). Connect the GSM module power source to the 230 V / 50 Hz mains (the green LED lights up, and the orange one is blinking on the module).
5) As soon as the orange diode lights up, test correct connection of CONST14 (see page 12: TEST) – connection should always be established automatically within 3 minutes without the TEST function.

Example of using PT32 in connection with GSM module:

The thermostat is located in an object where anti-freeze temperature (e.g., 7 °C) must be kept.

1. Connect PT32 strictly according to the instructions.
2. Select the MANU mode.
3. Pushing the " ⏎ " button and turning the " 🔧 " , set the thermostat temperature to 7°C.
4. Before entering the object, enter the "Temp 23" SMS in your mobile phone, and send it to the module number connected to the thermostat.

The thermostat receives the message and automatically switches the heating system on until the desired temperature is achieved. Next, the PT32 automatically sends a RETURN SMS to inform you about the temperature change made. Entering the object, you can adjust the temperature on the thermostat directly at will.

FORMS OF MESSAGES SENT

Info	Information on the heating system status
Auto	Setting AUTO mode, thermostat will be work acc. last setting weekly program
Manu	Setting MANU mode, thermostat will be keep last setting temperature
Off	Heating system switched off permanently. ; to cancel the function, use the *Temp xx* message, thermostat will automatically enter into the MANU mode with the given temperature or SMS message *Auto* (for AUTO mode) or *Manu* (for MANU)
Temp xx	Required temperature change (only integer numbers can be entered, within the permitted range of maximum and minimum temperatures –CONST2 and CONST3).
Call	Back call

xx = temperature value in °C (always a two-digit number, e.g. 05)

! Any type of mobile phone can be used for sending and receiving back messages! If you can set the font size (format) in your phone, always use the MEDIUM size when writing messages (if there are three options), or the BIG size (if there are two options).

FORMS OF BACK MESSAGES FROM THE THERMOSTAT

Requir: xx.x	Temperature required (user set)
Act: xx.x	Current room temperature
Set on **Set off**	Heating system on Heating system off
AUTO **MANU** **OFF**	Thermostat in automatic AUTO mode Thermostat in manual MANU mode Thermostat in the OFF mode (permanently off)
Sig: x	Signal strength at the place where the module is located; where x is the value within the range of 0 to 5: 0..undeterminable or no signal detected 1..the worst strength 5..the best signal strength
Battery!	indicates low battery in the thermostat
No accept!	Error indicated (wrong SMS format, etc.)

xx.x = temperature value in °C

BACK MESSAGES ARE SENT WITHIN 3 MINUTES!

Note: If the minimum/ maximum room temperature (preset CONST 2 and 3) is exceeded, the "WARNING" SMS is automatically sent in a form similar to that in the Info form (only if you enter phone number to the thermostat, see CONST tEL nO).

Info: If using a credit card, you must make a paid call once in 3 months. This call is executed automatically (in 80 days, between 4 and 9 PM) to the phone number entered in the thermostat (CONST tEL nO); after 20 s, the call is terminated automatically.
You can execute this function earlier by means of the "Call" SMS message.

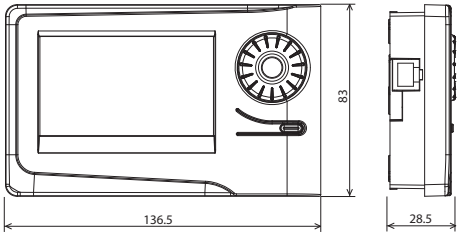
INTELLIGENT THERMOSTAT PT32

PT32 is a battery-powered room temperature. The big, well-arranged graphic display offers intuitive navigation in the selected language (CZ/ PL/ EN/ DE/ RU/SK). The backlit display enables thermostat control even at night. The thermostat can be connected to all boilers requiring potential-free (voltage-free) switching contacts (such as gas boilers, electric boilers, circulation pumps, thermoelectric drives or conditioning units).

Properties:

- 9 weekly programs
- 6 temperature changes per day
- programming by 10 minutes and 0.5 °C
- programming “day-by-day” or Mon-Fri, Sat-Sun and Mon-Sun
- big backlit graphic display
- possibility of setting HYSTERESIS, PI regulation or PID regulation
- preliminary heating start function
- short-term change in the required temp.
- manual mode (MANU)
- permanent off (OFF)
- HOLIDAY mode
- summer mode
- even-odd week selection
- current temperature correction
- key lock
- boiler operating hours total
- boiler maintenance indication
- anti-freeze protection (3 °C)
- TEST function
- automatic SUMMER/ WINTER time change
- flat battery indication
- possibility of using GSM module (GST1 or GST2) for control with mobile phone

Dimensions:



Remote control modules:

The PT32 thermostat can be equipped with GSM modules for remote control of the thermostat by means of a mobile phone.

Technical parameters	
Power supply	2 x 1.5 V alkal. batteries type AA
Number of temp. changes	6 temperature changes per day
Hysteresis	0.1 to 6°C
Minimum program. time	10 minutes
Adjustable temp. range	+5°C to 39°C
Temperature setting	by 0.5°C
Minimum indication step	0.1°C
Measurement accuracy	± 0,5°C
Battery life	heating season
Protection	IP20
Protection class	II
Output	max.5A (potential-free contacts)
Working temperature	0°C to +40°C

WARRANTY CERTIFICATE

(a 2-year warranty is granted for the product)

Product number:	Date of sale:
	Shop stamp:
Checked by:	

8 594012 224346

LEAD FREE in compliance with s RoHS

21 PAP

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

ELEKTROBOCK CZ s.r.o.
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Kuřim 664 34
Tel./fax: +420 541 230 216

ELEKTROBOCK CZ
MADE IN CZECH REPUBLIC

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