

Instructions for Use

Room thermostat



for single room regulation of the Fonterra radiant heating and cooling systems

Model
1244

viega

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1 About these instructions for use

Trade mark rights exist for this document; for further information, go to viega.com/legal.

1.1 Target groups

The information in this instruction manual is directed at the following groups of people:

- Heating and sanitary professionals and trained personnel
- Qualified electricians
- Operators
- Consumers

Individuals without the abovementioned training or qualification are not permitted to mount, install and, if required, maintain this product. This restriction does not extend to possible operating instructions.

The installation of Viega products must take place in accordance with the general rules of engineering and the Viega instructions for use.

1.2 Labelling of notes

Warning and advisory texts are set aside from the remainder of the text and are labelled with the relevant pictographs.



DANGER!

This symbol warns of possible life-threatening injury.



WARNING!

This symbol warns of possible serious injury.



CAUTION!

This symbol warns of possible injury.



NOTICE!

This symbol warns of possible damage to property.



This symbol gives additional information and hints.

1.3 About this translated version

This instruction for use contains important information about the choice of product or system, assembly and commissioning as well as intended use and, if required, maintenance measures. The information about the products, their properties and application technology are based on the current standards in Europe (e.g. EN) and/or in Germany (e.g. DIN/DVGW).

Some passages in the text may refer to technical codes in Europe/Germany. These should serve as recommendations in the absence of corresponding national regulations. The relevant national laws, standards, regulations, directives and other technical provisions take priority over the German/European directives specified in this manual: The information herein is not binding for other countries and regions; as said above, they should be understood as a recommendation.

2 Product information

2.1 Safety advice



DANGER! **Danger due to electrical current**

An electric shock can lead to burns and serious injury and even death.

- Work on the electrics may only be carried out by trained electricians or electrical trade professionals.
- Switch off the mains voltage before carrying out work on electrical parts.
- Installation must be performed in accordance with the applicable national legislation.

2.2 Intended use

The room thermostat controls thermal actuators in a single room regulation system. The actuators can be activated directly or via a basic unit. The room thermostat is suitable for 230 V components.

- The room thermostat is a fixed installation.
- The room thermostat measures the actual temperature (room temperature) and sets the target temperature (comfortable temperature).
- The room thermostat regulates the actual temperature by activating the actuators in heating or heating/cooling mode within an assigned range.
- The room thermostat allows an external sensor to be connected.

2.3 Product description

2.3.1 Features and functions

The room thermostat monitors the room temperature and relays a signal for the actuator to be opened or closed via the basic unit.

Navigation

The rotating knob is used to navigate through and set the room thermostat:

- **Press** the rotating knob: call menus, activate/deactivate functions and apply the settings made.
- **Turn** the rotating knob: select menus and functions and make settings.

A basic level and various menus are available for the navigation and setting operations.

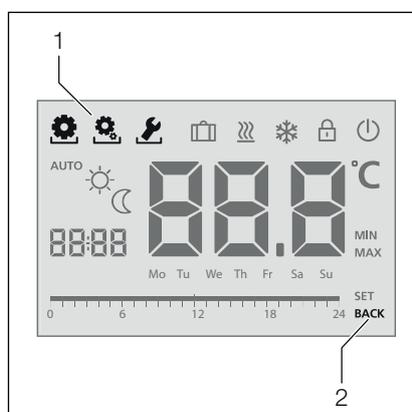
The basic level displays the current actual temperature and the active functions.

The functions of the three main menus are described below.

Menu selection

Pressing the rotating knob once calls up the menu selection.

A selected menu or function is indicated by a flashing symbol. If there are no further inputs, the display returns to the basic level after 5 seconds.



- 1 Symbols for menu selection
- 2 BACK = exit menu

Symbol	Menu name	Description
	Lifestyle functions	Contains all important basic functions.
	Settings	Contains advanced functions and numerous setting options.
	Service	Contains various system parameters. The complete system can be optimally set up by configuring the correct settings.

Symbol	Menu name	Description
	Back	Exit the menu selection and return to the basic level.

2.3.2 Overview and description of component

Device overview

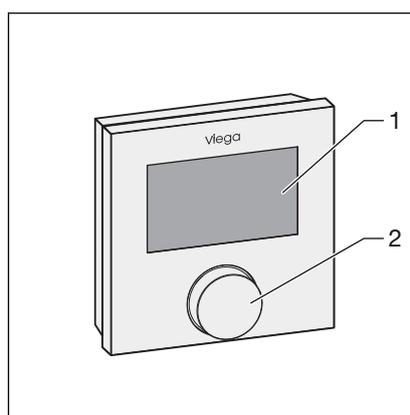


Fig. 1: Overview room thermostat

- 1 Display
- 2 Rotating knob with press-rotate mechanism and fine detent

2.3.3 Technical data

Operating voltage	230 V ± 10 % 50 Hz
Power supply	Mains connection
Fuse 230 V	T1AH
Contact element 230 V	Relay
Switching capacity	1 A ohmic load
Nominal current without drives	≤ 2 mA
Maximum permissible current uptake of connected 230 V drives	1 A
Temperature setting range	5–30 °C
Terminals	0.22–1.5 mm ²
Lowering balance	adjustable
Temperature measurement	0–40 °C

Permissible ambient temperature	0–50 °C
Storage temperature range	-20–70 °C
Admissible ambient humidity	80 % non-condensing
CE conformity	EN 60730
Protection class	II
Degree of protection	IP20
Degree of contamination	2
Rated impulse voltage	1500 V
Mode of operation	Type 1.C
Weight	105 g
Dimensions (W x H x D)	86 x 86 x 31 mm
Valve protection function	Every 14 days for 10 minutes after last actuation.
Frost protection function	From +5 °C in heating mode. Not active in cooling mode.
Power reserve	10 h
No. of actuators	Maximum 5 (up to 3 W per actuator)
Correction actual temperature measurement	±2 °C
Measuring accuracy	±0.5 K between 17 and 24 °C
Regulation accuracy	±0.5 K between 17 and 24 °C
Changeover input	Electronic
Block cooling	Yes
Lowering balance/saving mode temperature	Value can be set for day and night temperature (heating/cooling)
Connection line	NYM-O 5x 1.5 mm ²

Connection diagram

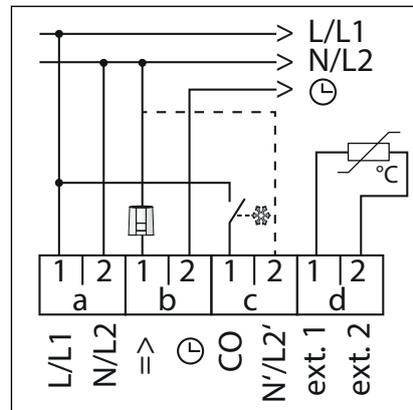


Fig. 2: Connection diagram room thermostat

3 Handling

3.1 Transport and storage

Observe the following with transport and storage:

- Avoid heavy blows and vibrations.
- Store components in a clean and dry place.
- Do not remove the components from the packaging until immediately before use.



NOTICE!

Replace defective components, do not repair.

3.2 Assembly information

3.2.1 Preconditions for mounting

Rooms thermostats are mounted in rooms, usually close to doors together with switchboxes. Avoid direct sunlight, humidity and air draughts. The distance to the door is approx. 30 cm.

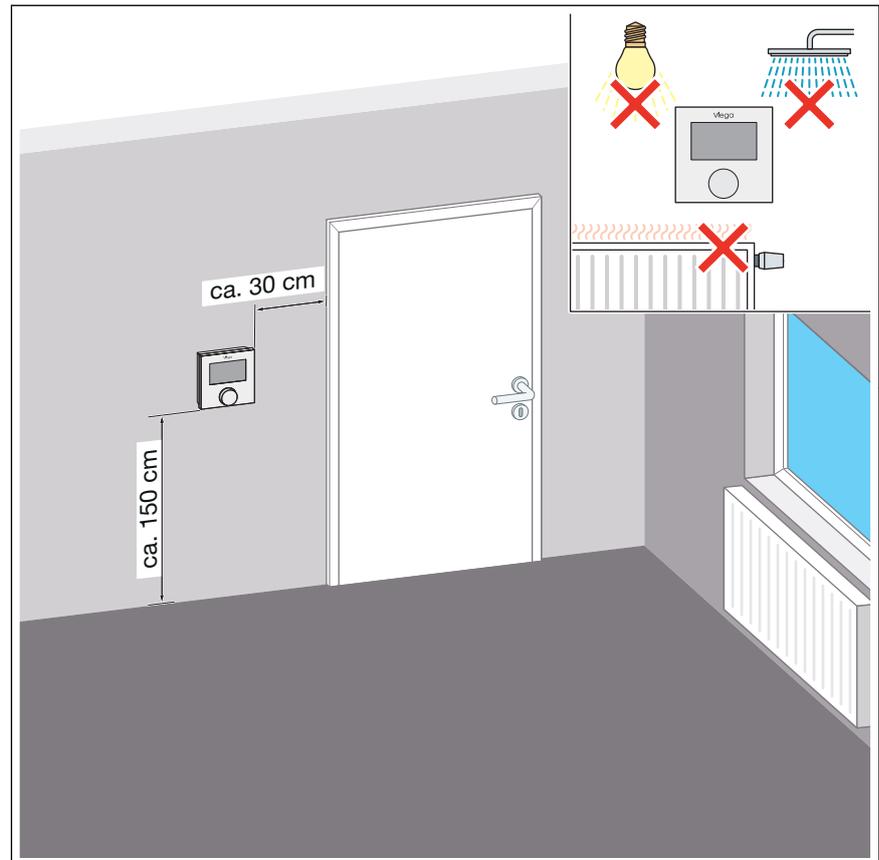


Fig. 3: Room thermostat mounting conditions

3.3 Assembly

3.3.1 Assembly sequence

Assemble the components in the sequence described in the following:

- Fasten the casing base on the wall (non-conductive underground).
- Connect the cable.
- Mount the casing upper part to the casing base.
- Establish the power supply.
- Configure the room thermostat.
- Adjust the room thermostat / limit the setting range.

3.3.2 Mounting the room thermostat

General safety advice

- Only authorised professionals are allowed to open the device when it has been de-energised.
- Before opening, switch off the mains voltage and secure to prevent accidental reactivation.
- Respect the performance limits of the device and the ambient conditions.

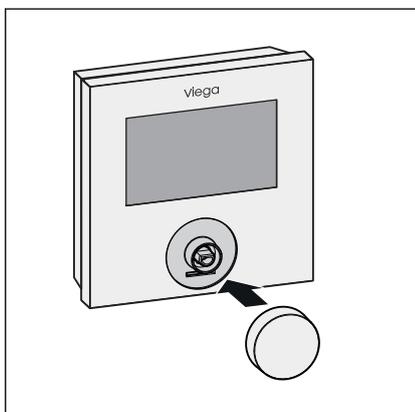
- This product is not intended for use by persons (including children) with restricted physical, sensory or mental aptitude or lack of experience and/or knowledge.
- Make sure that children do not play with this product.
- In case of emergency, de-energise the entire single room regulation system.



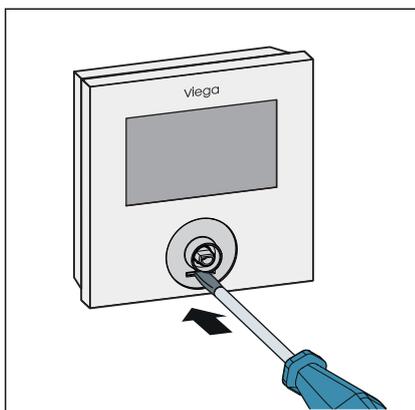
DANGER!
Danger of suffocation by swallowing!

The rotating knob is removable. Children could swallow the rotating knob.

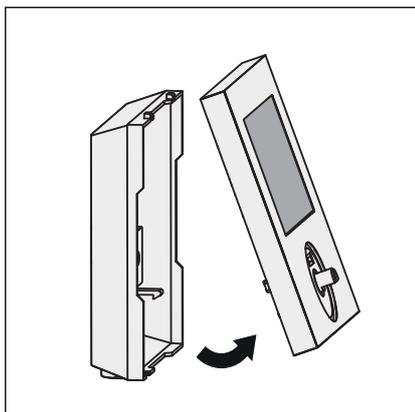
- Keep the rotating knob out of the reach of children.



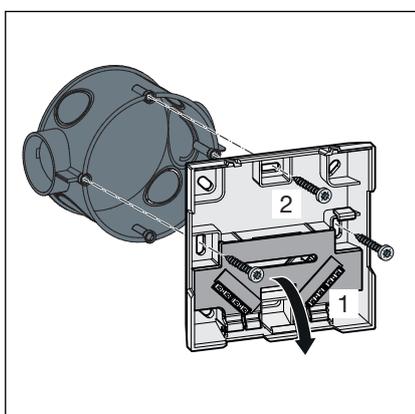
- Remove the rotating knob.



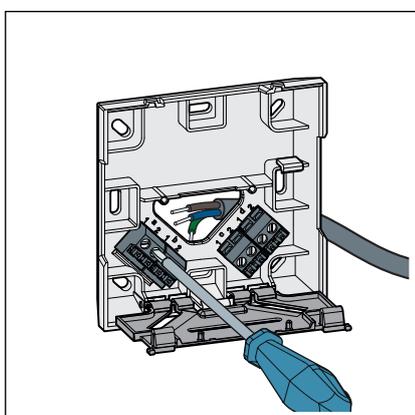
- Use a screwdriver to push back the locking tab.
- The casing upper part detaches at the bottom from the casing base.



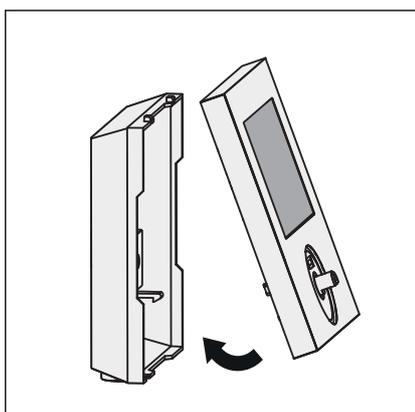
- Remove the casing upper part to the front.



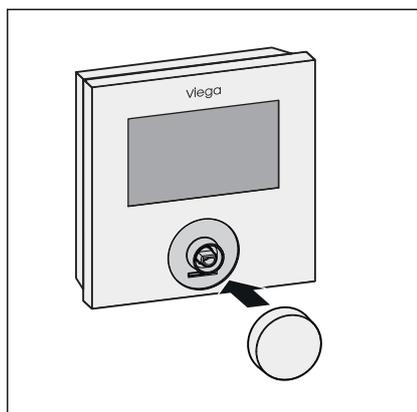
- Remove the protective cover.
- Mount the casing base to the concealed socket (\varnothing 60 mm) using three screws (3.5 mm).



- Cable up the room thermostat according to the connection diagram, see ⚡ „Connection diagram“ on page 9.



- Position the casing upper part at the top and press down.
 - The lock can be heard snapping into place.



- Remount the rotating knob.

3.4 Commissioning

3.4.1 Requirements

- The power supply to the basic unit is established and the room thermostat is connected to the base unit.
- Optional: The cable is connected to the external temperature sensor.

3.4.2 Configuring the room thermostat

"Lifestyle functions" menu

The Lifestyle functions are configured in this menu.

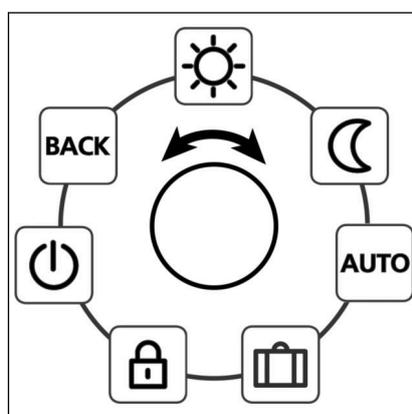


Fig. 4: Overview of all menu options



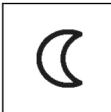
When an operating mode (day, night, automatic) is selected, only the inactive ones are available for selection.

Procedure

- Call up the menu selection by pressing the rotating knob.
- Select the "Lifestyle function" menu and call up by pressing the rotating knob.
- Select the desired function.



If there is no further command, the display will return to the basic level after 30 seconds.

Symbol	Description	Steps
	<p>Day mode</p> <p>Temperature regulation to the set target temperature in the "Settings" menu.</p>	<ul style="list-style-type: none"> ■ Press to confirm your selection. <p>Day mode has been activated. The basic level is displayed.</p>
	<p>Night mode</p> <p>Temperature regulation to the saving mode temperature set in the "Settings" menu.</p>	<ul style="list-style-type: none"> ■ Press to confirm your selection. <p>Night mode has been activated. The basic level is displayed.</p>
	<p>Automatic mode</p> <p>Automatic temperature regulation according to the comfort programs in the "Settings" menu.</p>	<ul style="list-style-type: none"> ■ Press to confirm your selection. <p>Automatic mode is activated. The basic level is displayed.</p> <ul style="list-style-type: none"> ■ The time scale is indicated on the display.
	<p>Holiday function</p> <p>Automatic lowering to the holiday temperature set in the "Settings" menu.</p>	<p>Activate</p> <ul style="list-style-type: none"> ■ Press to confirm your selection. ■ Set the number of holiday days by turning the rotating knob. ■ Confirm your entry. <p>The holiday function will be activated immediately. The basic level is displayed.</p> <p>Changing the target temperature later deactivates the holiday function.</p> <p>Deactivate</p> <ul style="list-style-type: none"> ■ Follow the operating steps under "Activate". ■ Set the number of holiday days by turning to 00.
	<p>Operating lock</p> <p>Locks the room thermostat. The target temperature adjustment and operation are deactivated. The actual temperature and all active functions continue to be displayed.</p>	<p>Activate</p> <ul style="list-style-type: none"> ■ Press to confirm your selection. <p>The symbol opposite is displayed and the operating lock is activated. The basic level is displayed.</p> <p>Deactivate</p> <ul style="list-style-type: none"> ■ Press the rotating knob for ≥ 5 seconds. <p>The symbol opposite is deactivated. Operation is possible again.</p>

Symbol	Description	Steps
	<p>Switch off</p> <p>Switches off the room thermostat. The temperature regulation function is deactivated. The valve protection function and the frost protection function remain active.</p> <p>The comfort programs from the "Settings" menu continue to be evaluated. Pending switching signals are emitted to connected controllers via the lowering output.</p>	<ul style="list-style-type: none"> Press to confirm your selection. <p>All functions are deactivated. The symbol opposite is displayed. The actual temperature is displayed.</p> <p>Switch on</p> <ul style="list-style-type: none"> Press the rotating knob for > 5 seconds. <p>The display is located at basic level and indicates all active functions.</p>
	<p>Back</p> <p>Exits the menu.</p>	<ul style="list-style-type: none"> Press to confirm your selection. <p>The display is located at basic level.</p>

"Settings" menu

Advanced settings can be made in this menu.



If there is no further command, the display will return to the basic level after 30 seconds.

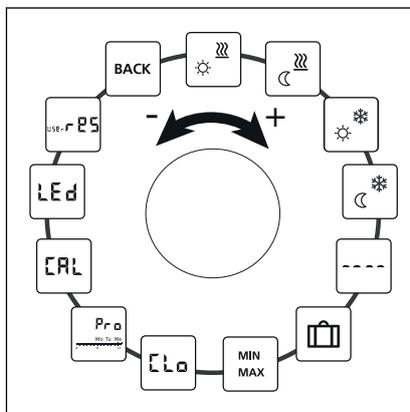
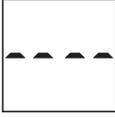


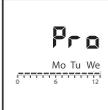
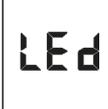
Fig. 5: Settings display

Procedure

- Call up the menu selection by pressing the rotating knob.
- Select the "Settings" menu and call it up by pressing the rotating knob.
- Select the desired setting by pressing the rotating knob.

Symbol	Description	Steps
	<p>Comfortable temperature, heating</p> <p>Sets the target temperature for day mode.</p>	<ul style="list-style-type: none"> Press to confirm your selection. Set the target temperature. Press to confirm your entry. <p>The display is located in the "Settings" menu.</p>

Symbol	Description	Steps
	Saving mode temperature, heating Sets the target temperature for night mode.	<ul style="list-style-type: none"> ■ Press to confirm your selection. ■ Set the target temperature. ■ Press to confirm your entry. The display is located in the "Settings" menu.
	Comfortable temperature, cooling Sets the target temperature for day mode.	<ul style="list-style-type: none"> ■ Press to confirm your selection. ■ Set the target temperature. ■ Press to confirm your entry. The display is located in the "Settings" menu.
	Saving mode temperature, cooling Sets the target temperature for night mode.	<ul style="list-style-type: none"> ■ Press to confirm your selection. ■ Set the target temperature. ■ Press to confirm your entry. The display is located in the "Settings" menu.
	External floor sensor Sets the minimum floor temperature. This function is displayed if the connection of an external floor sensor is specified in the Service menu under Parameter 040.	<ul style="list-style-type: none"> ■ Press the rotating knob to confirm your selection. ■ Make the setting. ■ Press to confirm your entry. The display flashes and is located in the "Settings" menu.
	Holiday temperature Sets the target temperature for the holiday function in the "Lifestyle functions" menu.	<ul style="list-style-type: none"> ■ Press to confirm your selection. ■ Set the target temperature. ■ Press to confirm your entry. The display is located in the "Settings" menu.
	Temperature limitation Sets the minimum and maximum settable target temperature.	<ul style="list-style-type: none"> ■ Press to confirm your selection. ■ Set the minimum temperature. ■ Press to confirm your entry. ■ Set the maximum temperature. ■ Press to confirm your entry. The display is located in the "Settings" menu.
	Time data Sets time and day of the week.	<ul style="list-style-type: none"> ■ Press to confirm your selection. ■ Set the time (hh:mm) and the day of the week by turning and then press to confirm. The display is located in the "Settings" menu.

Symbol	Description	Steps
	<p>Comfort programs</p> <p>In automatic mode, regulation is achieved via the switching times of the comfort programs:</p> <ul style="list-style-type: none"> ■ Week (Mo–Su) ■ Days of the week (Mo–Fr) ■ Weekend (Sa–Su) ■ Day (Mo, Tu, We, Th, Fr, Sa, Su) <p>Four switching times (P1–P4) can be configured for each day of the week. Once the start time is reached, the program regulates to the target temperature. Outside of the switching times, regulation is achieved via the saving mode temperature.</p> <p>The predefined switching times can be individually adapted:</p> <ul style="list-style-type: none"> ■ Monday–Friday <ul style="list-style-type: none"> ■ 5:00–8:00 o'clock ■ 15:00–22:00 o'clock ■ Saturday–Sunday <ul style="list-style-type: none"> ■ 6:00–23:00 o'clock <p>Requirements</p> <ul style="list-style-type: none"> ■ Automatic mode must be activated. ■ The comfortable and saving mode temperatures must be set in the "Settings" menu. ■ The current time data must be set. 	<ul style="list-style-type: none"> ■ Press the rotating knob to confirm your selection. <p>The display skips to the comfort program overview. [day] appears in the display.</p> <ul style="list-style-type: none"> ■ Select and activate a comfort program. ■ Select a switching time (P1–P4). ■ Set the start time and end time by turning and then press to confirm. ■ Press [BACK] to return to the comfort program overview. ■ Make more settings or press [BACK] to return to the "Settings" menu.
	<p>Temperature correction</p> <p>Corrects a measurement that differs from the actual temperature of the internal sensor by ± 2 °C in 0.1 °C increments.</p>	<ul style="list-style-type: none"> ■ Press to confirm your selection. ■ Set the correction value. ■ Press to confirm your entry. <p>The display is located in the "Settings" menu.</p>
	<p>Display lighting</p> <p>Sets the brightness of the display lighting in five levels:</p> <ul style="list-style-type: none"> ■ 0 — Off ■ 25 — Level 1 ■ 50 — Level 2 ■ 75 — Level 3 ■ 100 — Level 4 <p>The setting display is indicated by the time scale.</p>	<ul style="list-style-type: none"> ■ Press to confirm your selection. ■ Set the brightness of the display lighting. ■ Press to confirm your entry. <p>The display is located in the "Settings" menu.</p>

Symbol	Description	Steps
	Factory settings Restores the delivery state. All settings made are reset.	<ul style="list-style-type: none"> ■ Press to confirm your selection. ■ To reset the entry, select [YES]. ■ Press the rotating knob for 5 seconds. The system restarts. The basic level is then displayed. [NO] cancels the process.
	Back Exits the menu.	<ul style="list-style-type: none"> ■ Press the rotating knob to confirm your selection. The display is located at basic level.

"Service" menu



NOTICE! System damage!

Incorrect configurations can lead to errors and system damage.

- Have the settings made only by authorised professionals.

The complete system can be optimally set up by configuring the correct settings. The menu is protected by a four-digit PIN (default: 1234). The PIN prevents incorrect configuration.

Procedure

- Call up the menu selection by pressing the rotating knob.
- Select the "Service" menu.
- Press the rotating knob to call up the menu.
- Select the [Code] menu option.
- Press the rotating knob to activate the PIN entry.
- Enter the four-digit PIN (default: 1234). Turn to select the individual digits and press to confirm.
- Active the [PAr] function.
- Turn to select the individual digits of the parameter number and press to confirm.
- Press [Set].
- Make the setting according to the table below.
- Press [BACK] twice.
 - The basic level is displayed.



If there is no further command, the display will return to the basic level after 30 seconds.

Parameter	Description	Setting
010	Heating system Sets the existing heating system: <ul style="list-style-type: none"> ■ Underfloor heating, standard (FBH St.) ■ Underfloor heating, low-energy (FBH NE) ■ Radiator (RAD) ■ Convector, passive (KON pas) ■ Convector, active (KON akt) 	0 = FBH St. 1 = FBH NE 2 = RAD 3 = KON pas 4 = KON akt Default: 0
020	Block cooling Deactivates the cooling function.	0 = activated 1 = deactivated Default: 0
030	Operating lock Prevents the operating lock being deactivated by means of a PIN.	0 = activated 1 = deactivated Default: 0
031	PIN operating lock Sets the PIN for Parameter 30.	0–9999 Default: 0000
040	External sensor Registers an external room or floor sensor. Registering a room sensor deactivates the internal sensor. If a floor sensor is used, the minimum floor temperature can be set using the "Settings" menu in the "External floor sensor" function.	0 = no external sensor 1 = room sensor 2 = floor sensor Default: 0
041	Correct actual temperature of external sensor Corrects a measurement that differs from the actual temperature.	-2–2 °C Default: 0 °C
050	Display lighting time Sets the time during which the display remains lit after operation.	0–30 seconds in 5 second increments Default: 15 seconds
090	Signal switching output Signals the activation of actuators by a flashing heating or cooling system.	0 = deactivated 1 = activated Default: 1
110	Direction of switching output control action Sets the direction of control action of connected actuators: <ul style="list-style-type: none"> ■ Normally closed (NC) ■ Normally open (NO) 	0 = NC 1 = NO Default: 0
161	Frost protection temperature Activates the frost protection function if the temperature falls below the set level.	5–10 °C Default: 5 °C

Parameter	Description	Setting
170	Smart start / Smart stop function Programs the temperature behaviour of the room.	0 = deactivated 1 = activated Default: 1
190	Valve protection function Opens the valve periodically to prevent blocking.	0–28 days Default: 14 days
191	Valve activation time Time for activating actuators to perform the valve protection function.	0–10 minutes Default: 5 minutes

3.4.3 Comfort and protection functions

Comfort functions

The room temperature regulator has comfort functions for achieving the comfortable temperature.

Function	Description
Smart start / Smart stop	Automatically calculates the time required for the comfortable temperature to be available at the start and end time of the comfort programs (Parameter 170).
"Heating/cooling" changeover contact	Switches from heating to cooling mode via changeover contact.

Protection functions

The room temperature regulator has safeguards to prevent damage to the complete system.

Function	Description
Valve protection function	To prevent the valves from blocking, this function opens all valves periodically during times without any valve activation (Parameters 190 and 191).
Frost protection function	Activates all connected actuators and opens the valves if the frost protection temperature is not reached.

3.5 Operating the room thermostat

Requirements:

- The heating system is in operation.
- The actuators are connected to the basic unit.

Setting the target temperature

The target temperature is set by turning the rotating knob to the right or left.

- To reduce the target temperature, turn the rotating knob to the left.
- To increase the target temperature, turn the rotating knob to the right.



Comfortable temperatures can be saved for day and night mode. Switching between day and night mode manually or automatically sets the system to the stored temperature. Regardless of the active operating mode, the target temperature can be changed at any time using the rotating knob.

3.6 Troubleshooting

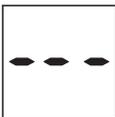


DANGER! **Risk of electric shock!**

Risk of electric shock when working at the open casing or at cable inlets.

- Switch off the mains voltage before carrying out work on electrical parts.

Commission a specialist company to carry out the work if you need to open the casing or repair cables in the course of troubleshooting.

Display	Meaning	Possible troubleshooting
	Measured temperature of internal/external sensors exceeded	Internal sensor / room sensor <ul style="list-style-type: none"> ■ Remove external heat sources in the direct vicinity and wait until the sensor has cooled down. ■ Reposition the room sensor if necessary. ■ Check the room thermostat/room sensor and have replaced if necessary. Floor sensor <ul style="list-style-type: none"> ■ Check the floor sensor and have replaced if necessary.

Display	Meaning	Possible troubleshooting
0004	External sensor (room/floor sensor) fault	<ul style="list-style-type: none"> ■ No external sensor is connected. ■ Restore the factory settings. ■ Deactivate the external sensor in the "Service" menu under Parameter 040. ■ Check the external sensor and have replaced if necessary.
0010	Internal sensor fault	<ul style="list-style-type: none"> ■ Restore the factory settings. ■ Check the room thermostat and have replaced if necessary.

3.7 Care tips

Use a soft, dry, solvent-free cloth for cleaning.

3.8 Disposal

Separate the product and packaging materials (e. g. paper, metal, plastic or non-ferrous metals) and dispose of in accordance with valid national legal requirements.



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