



Room thermostat II 230 V

quick instructions

Product description

The room thermostat II 230 V allows you to control your wired heating applications conveniently via your Smart Home system.

Description of the symbols



Warning!
Note about hazards



Note:
Additional
important information



Note about the installation video

⚠ Safety instructions

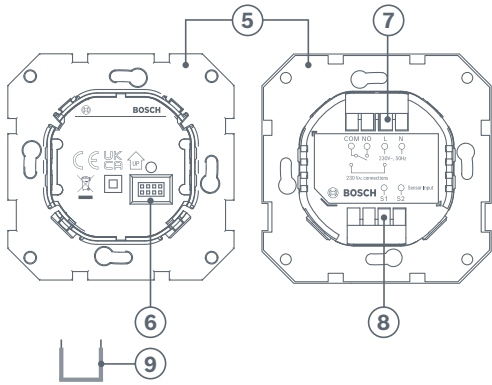
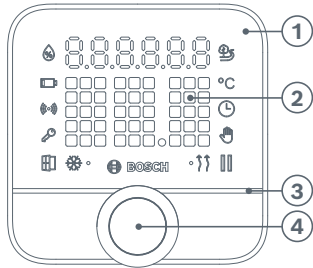
- ▶ Read this user manual completely before installing or commissioning the device and pay particular attention to the hazard information.
- ▶ The installation of this device and work on the 230 V network must only be carried out by an electrician.
- ▶ The device is not a toy! Do not allow children to play with it. Never leave the packaging material lying around unattended. Plastic film and small parts may pose a danger to children.
- ▶ This device may be used by children from 8 years of age and by persons with reduced physical, sensory or mental capacities, or a lack of experience and knowledge provided these persons are supervised or have been instructed in the safe use of the device, and understand the corresponding risks.
- ▶ When remotely or automatically controlling a device, it is not always possible to guarantee that commands are actually executed or that the correct device status is displayed in the app and on other Smart Home display devices because of external circumstances. This may lead to material damage and/or personal injury. Therefore, you must ensure to the greatest extent possible that no person is endangered at the time of remote operation or automated control. Please take special care when setting up or adjusting the remote control or when using the automated control and check the desired functionality at regular intervals.

- ▶ Do not paint over the device! Do not apply wallpaper or paste over the device!
- ▶ The device is not suitable for disconnection.
- ▶ For safety and approval reasons (CE/UKCA), the device may not be modified and/or no changes may be made to the device without authorisation.
- ▶ Any use other than that which is described in the user manual is considered improper and leads to the exclusion of guarantee and liability.
- ▶ We accept no liability for material damage or personal injury which is caused by improper use or failure to observe the safety instructions. In these cases, any guarantee claim becomes void! We accept no liability for consequential damage.
- ▶ Do not use the device if it has damage visible from the outside, for example, to the housing, control elements or connection sockets, or if it has a malfunction. If in doubt, please contact our service team.
- ▶ Only operate the device indoors and do not expose it to moisture, vibrations, constant sunlight or other sources of heat, extreme cold temperatures and mechanical stress.
- ▶ Do not open up the device. It does not contain any parts to be maintained by the user. If a fault occurs, have the device checked by a specialist.
- ▶ Only use the device together with original components and recommended products from Bosch partners.
- ▶ Only operate the device with the control element attached.

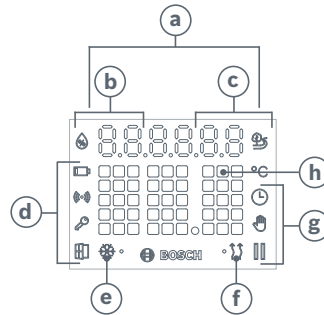
i Notes

- ▶ The range within buildings can differ significantly from the range in open spaces. In addition to the transmitting power and the receiving properties of the receiver, environmental factors such as humidity, as well as the local structural situation, play an important role.
 - ▶ The device is only intended for use in residential environments.
 - ▶ The device is only intended for private use.
- ▶ You can also use the explanatory videos and additional information on our website as an additional aid for mounting, installing, starting up and restoring the factory settings on your Bosch Smart Home room thermostat II 230 V:
www.bosch-smarthome.com/rom/room-thermostat-2-230V

Product overview



Item	Name
1	Control unit
2	LED display
3	Status LED
4	Rotary knob / system button
5	In-wall housing (power supply and switching relay)
6	Control unit connector
7	Power supply and consumer terminals
8	Sensor terminals
9	Wire bridge (Only use consumers at 230 V_{AC}!)



LED display (2)

Item	Name	Description
a	Information area	Displays error codes or other additional information.
b	Humidity	Displays room humidity in normal operation.
c	Secondary temperature display	Reserved for the display of further temperature values (if applicable, optional accessories required)
d	Status indicators	
	Power supply loss	Appears when the 230 V power supply is down.
	Connection status	Wireless connection to the controller is active. In the event of constant flashing, there is a connection problem with the controller.
	Child lock	Press the system button > 3 seconds, adjust the desired value by turning
	Open window	The system has detected an open window in the room. Heating/cooling mode paused.
e	Cooling mode	The device/system is set to cooling mode.
f	Heating mode	The device/system is set to heating mode.
g	Room control modes (press system button 1x, select mode)	
	Automatic	Room control is controlled via a schedule.
	Manual	Temperature at constant value. Can be changed via rotary knob.
	Rest mode	Heating or cooling mode paused.
h	Value display	Displays actual and set temperature. Other text information in case of an error or during configuration.

The status LED (3) shows the status of the room thermostat using flashing codes.

Signal	Meaning	Measures
Flashes orange	Pairing mode (is active) or device is communicating with the controller	Please wait
Flashes green	Pairing mode (successful) or process confirmed	
Flashes red 1x	Pairing mode (not successful) or process failed	If this is the first tuning attempt, please try again. Otherwise reset the device to the factory settings and contact the service department if necessary.
Flashes red every 15 seconds	Functional error	Look for information in the Smart Home app. Contact the service team if necessary.

Notes regarding installation

- ⚠ The standards and directives applicable in your country must be observed during planning, set-up, operation and maintenance.
- ⚠ The device is part of the building installation. Operation of the device is only permitted at 230 V/50 Hz AC voltage. Work on the 230 V network may only be carried out by an electrician. The applicable accident prevention regulations must be observed here. To avoid an electric shock on the device, please switch off the mains power. Failure to observe the installation instructions may result in fire or other hazards.
- ⚠ Mounting must be carried out following the applicable requirements. Failure to observe the requirements may result in damage to property and/or injury, or even danger of death.
- ⚠ Please also note any additional information on the product.
- ℹ A 230 volt alternating current power supply is required for this product (the device must have a phase and neutral conductor).
- ⚠ The product is only intended for fixed installation in in-wall switch boxes with a minimum depth of 35 mm and a screw distance of 60 mm (in accordance with DIN 49073-1) in indoor areas.
- ⚠ The supplied wire bridge (connection “COM” and “L” connections) may only be installed with 230 V_{AC} consumers. **Non-observance can lead to destruction of the device, fire or electrical accident!**
- ⚠ When connecting the device terminals, ensure that permitted wires and wire cross sections are used.

- ⚠ The consumers connected to the relay outputs must have sufficient insulation.
- ⚠ Observe the technical data, in particular the maximum permissible switching power of the relay and the type of consumer to be connected, before connecting a consumer. The device should only be loaded to the specified power limit. Overloading may result in destruction of the device, fire or an electrical accident. Among other things, reliable switching off of the connected consumer cannot be guaranteed.
- ⚠ The power circuit to which the device and the load are connected must be secured with a circuit breaker in accordance with EN 60898-1 (trigger characteristics B or C, max. 16 A rated current, min. 6 kA breaking capacity, energy limitation class 3). Installation guidelines in accordance with the applicable national standards, e. g. VDE 0100 or HD384 or IEC 60364, must be observed. The circuit breaker must be easily accessible for the user and labelled as a disconnecter for the device.
- ⚠ When using the device in wet rooms such as bathrooms, a minimum distance of 60 cm from wet areas, such as a bathtub, shower or wash basin must be maintained.

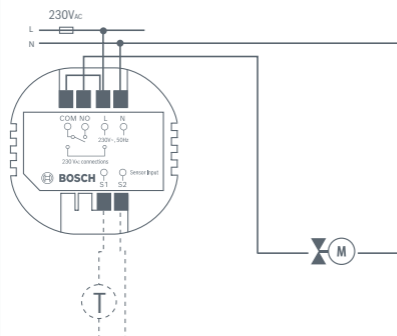
Installation and mounting

- ⚠ Before you start: Be sure to shut off the power circuit breaker!

If necessary, remove an existing thermostat.


Connect the room thermostat II 230 V according to the connection diagram that suits you.

Operation with 230 V devices

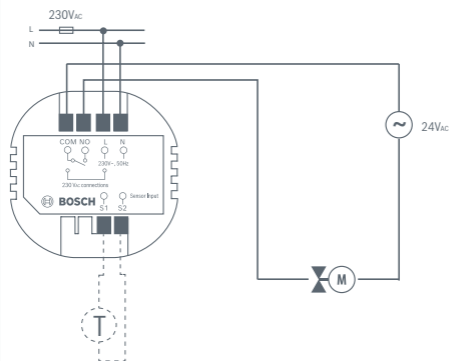


Conne- ction

Description


L	External conductor (230 V _{AC})
N	Neutral conductor
COM	Voltage-free input. For 230 V devices, connect the supply voltage to “L” via a wire bridge.
NO	Switching output for consumers
S1/S2	Connections for external sensors or potential-free contacts.
T	External temperature sensor (available as optional accessory), e. g. installed in the floor.
	230 V actuator

Operation with 24 V devices

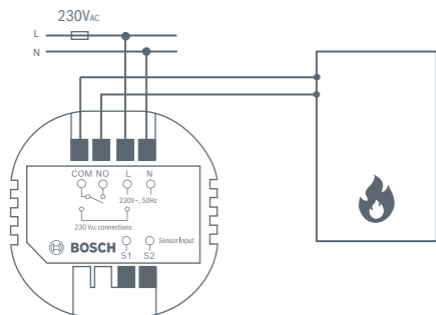


Conne- ction

Description

L	External conductor (230 V _{AC})
N	Neutral conductor
COM	Voltage-free input. For 24 V devices, input for the external 24 V voltage supply.
NO	Switching output for consumers
S1/S2	Connections for external sensors or potential-free contacts.
T	External temperature sensor (available as optional accessory), e. g. installed in the floor.
	24 V actuator

Operation with boiler



Con- nection

Description

L	External conductor (230 V _{AC})
N	Neutral conductor
COM	Voltage-free input.
NO	Voltage-free output.
S1/S2	–

Attach the in-wall housing to the wall box using suitable screws. Pay attention to correct orientation (Bosch writing at the top and readable): Place the control unit on the in-wall unit and press it in until it clicks into place.

Now switch the power back on.

As soon as the room thermostat is connected to the power supply, tuning mode starts and is active for 3 minutes. Tuning mode can be restarted at any time by pressing the system button (4).

i The room thermostat can also be operated independently, with no connection to the Smart Home system. The range of functions is then essentially limited to displaying and controlling the room temperature in conjunction with the connected heat generator according to the preset target temperature in the manual operating mode (without a time program).

In the event that an initial start-up is required without a Smart Home system (e.g. new build), basic settings can be made on the device via an installer mode.

To this end, press and hold the rotary knob (4) for at least 3 seconds until the display shows “INS”. By turning the knob (4) you can make a selection and confirm the selection by pressing it.

Level 1	Display		Description
	Level 2	Level 3	
UFH			Potential application, e. g. 230 V/24 V actuators
	NC		Normally closed actuator
		HT	Heating mode
		CL	Cooling mode
	NO		Normally open actuator
		HT	Heating mode
CL		Cooling mode	
VFH	–	–	Potential-free application, e.g. boiler
RAD	–	–	Radiator, operation with 2nd generation Bosch Smart Home radiator thermostats

- i** After connecting the room thermostat to the Bosch Smart Home system, you can also make all device settings in the Smart Home app.

Start-up

Ensure that you have a Bosch Smart Home controller and the Bosch Smart Home app and have successfully configured both. Now start the Bosch Smart Home app and select “Add new device”. Follow the instructions in the app.

Resetting to factory settings

You can reset the device to its factory settings as follows:


Remove the control unit from the in-wall housing. When reinserting it, hold the rotary knob (4) until “RES” appears on the display. Release the rotary knob and press it again. The device then restarts. Please note that it can take a few seconds until the room thermostat is ready for operation again.


- i** When resetting to factory settings, the settings and information are only lost from the device and not from the Bosch Smart Home controller.
- i** To re-configure the device, first delete it in the device management section of the Bosch Smart Home app and then add it again in the usual configuring process.

Maintenance and cleaning



The device does not require maintenance. Leave any repairs to a specialist. Clean the device with a soft, clean, dry and lint-free cloth. When cleaning, do not use any cleaning agents containing solvents.

Simplified declaration of conformity

 Robert Bosch Smart Home GmbH hereby declare that the radio equipment type Bosch Smart Home BTH-RM230Z corresponds with the directive 2014/53/EU. The complete text of the EU declaration of conformity is available via the following web address: <https://gb-doc.bosch.com>

 Robert Bosch Smart Home GmbH hereby declares that the radio system type BTH-RM230 complies with Regulation 2017. The full text of the declaration of conformity is available at the following internet address: <https://gb-doc.bosch.com>

Environmental protection and disposal


 Electrical or electronic devices which are no longer usable must be collected separately and disposed of via an environmentally friendly recycling facility (European Directive on Waste Electrical and Electronic Equipment). Use your country's specific return and collection systems when disposing of waste electrical or electronic devices.

Technical data

Device type designation	BTH-RM230Z
Protection type	IP21
Ambient temperature	0 – 50 °C
Max. humidity	80 % (non-condensing)
Housing dimensions (W × H × D)	86 × 87 × 35 mm
Weight	131 g
Radio protocol	ZigBee 3.0
Radio frequency	2.4 – 2.4835 GHz
Max. transmitting power	10 dBm
Radio range in the open	< 100 m
Software class	A
Receiver category	2
Supply voltage	230 V _{AC} /50 Hz
Max. power consumption	1 A
Overload protection	Thermal cutoff
Cable type and cross section	Rigid and flexible cable 1.0 – 1.5 mm ²
Installation	In device sockets with a depth of at least 35 mm and a device screw spacing of 60 mm
Switch output	Potential-free relay
Max. switching power	
Ohmic load	3 A
Inductive load	1 A
Capacitive load	–
Mode of operation	Type 1.B
Withstand voltage	3,000 V
Ball pressure test temperature	125 °C
Degree of soiling	2
Design	Independently mounted, electronic control device

Technical modifications reserved

Spare parts / accessories

For information on available spare parts or accessories, please visit:

<https://www.bosch-smarthome.com/rom/spareparts>

Service information

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