

Room controller display compact module

Art. no.: ..519.. KRMTSD

Operating instructions**1 Safety**

Electrical devices may only be mounted and connected by electrically skilled persons.

Serious injuries, fire or property damage possible. Please read and follow manual fully.

Use only the enclosed plastic screws for fastening to the supporting frame! Otherwise safe operation cannot be ensured. Electrostatic discharges can cause defects in the device.

This manual is an integral part of the product, and must remain with the end customer.

2 Function**System information**

This device is a product of the KNX system and complies with the KNX directives. Detailed technical knowledge obtained in KNX training courses is a prerequisite to proper understanding.

The function of this device depends upon the software. Detailed information on loadable software and attainable functionality as well as the software itself can be obtained from the manufacturer's product database. Planning, installation and commissioning of the device are carried out with the aid of KNX-certified software. The latest versions of product database and the technical descriptions are available on our website.

Intended use

- Operation of loads, e.g. light on/off, dimming, blinds up/down, brightness values, temperatures, calling up and saving light scenes, etc.
- Measurement and feedback control of the room temperature
- Installation in appliance box according to DIN 49073

Product characteristics

All buttons can be assigned with push-button sensor functions or functions for controller operation.

- Back-lit LC display
- One or two functions per button
- Completion with set of buttons
- Eight status LEDs – red, green or blue
- Brightness of Status LEDs and LED adjustable
- Integrated bus coupling unit
- Connection to room controller or push-button extension module
- Integrated room temperature sensor
- Remote sensor can be connected
- Room temperature control with setpoint value specification
- Two internal independent controllers to control two independent rooms - in conjunction with extension modules
- Display of room or setpoint temperature (°C or °F)
- Indication of outdoor temperature – with external sensor, e.g. weather station
- Display of time, in conjunction with KNX time encoder
- Push-button function or rockers function
- Disabling function: Disable or function switch-over of all or of individual push-button functions
- Alarm function, optionally with confirmation by pressing any button

3 Operation

Operating a function or load

- Switch: Short press on button.
- Dim: Long press on the button.
- Move Venetian blind: Long press on button.
- Stop or adjust Venetian blind: Short press on button.
- Call up light scene: Short press on button.
- Save light scene: Long press on button.
- Set value, e.g. brightness or temperature setpoint: Short press on button.
- Adjusting value: Press button for a long time.

i Depending on programming, a button triggers several functions after a longer press or triggers another function if opposite buttons are pressed simultaneously.

Operating modes and display icons

The device compares the current room temperature with the setpoint temperature and controls heating or cooling devices according to the current demand. The setpoint temperature depends on the current operating mode and can be changed by the user, depending on the programming. The operating modes and the current controller status for the internal controller **1** or **2** are shown in the display.

- : Operating mode Comfort
- : Operating mode Standby
- : Operating mode Night
- : Operating mode Frost/heat protection
The icon flashes if the room temperature drops below 5 °C / 41 °F.
- : Comfort extension, night
- : Comfort extension, frost protection
- ...: Fan controller with fan level display. = Fan off.
- ...: Heating mode with display of the heating stage
- ...: Cooling mode with display of the cooling step
- ... -- or -- ...: Setpoint temperature reduced or increased manually

When switched on, the display shows, next to the icon for the current operating mode, either:

- the time: the seconds mark flashes.
- the room temperature: icon
- the outdoor temperature: icon
- the setpoint temperature: icon
- any other temperature: icon

Menu

In the menu, the following displays and settings are available in sequence. Some items are not visible, depending on the programming of the device.

- Displaying the time
- Display of various temperatures
- **1con1**: Submenu Controller 1
- **2con2**: Submenu Controller 2
- **disp**: Submenu Display
- **End**: Exit menu without saving

The submenus for Controllers 1 and 2 each allow settings to be made for the operation mode, temperatures and fan levels:

- Temperature for Comfort mode
- Change for Heating standby mode

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- Change for Cooling standby mode
- Change for Heating night mode
- Change for Cooling night mode
- Presence mode
- Setpoint shift
- Changing the operating mode
- Fan controller
- Displaying the current room temperature
- Displaying the current temperature setpoint
- Displaying the current outdoor temperature

The following menu items can be used to exit the submenu:

- **Stor** – Exit and save settings
- **ESC** – Exit without saving settings

Opening and operating a menu

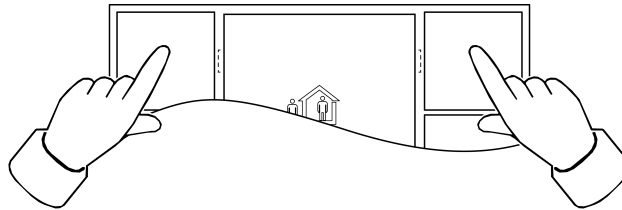


Figure 1: Opening or exiting a menu

Precondition: The menu is programmed and not disabled.

- Switching to the menu: Press the top two buttons simultaneously (Figure 2).
- Exiting a menu: Press the top two buttons simultaneously (with or without saving is dependent on the programming).
- Select next menu item: Press the \vee button.
- Switch to submenu: Press the \rightarrow button.
- Exit submenu without saving: Press the \leftarrow button.
- Switch setting/increase value: Press the $+$ button.
- Switch setting/reduce value: Press the $-$ button.

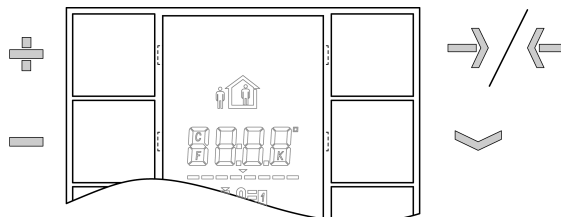


Figure 2: Menu buttons

4 Information for electrically skilled persons



DANGER!

Mortal danger of electric shock.

Cover up live parts in the installation environment.

4.1 Mounting and electrical connection

Mounting and connecting the device

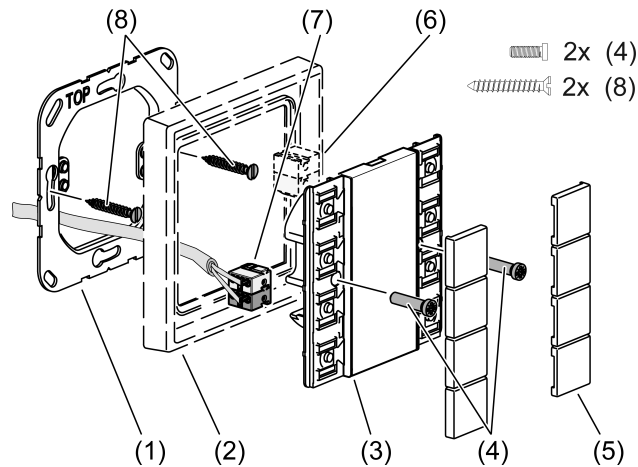


Figure 3: Mounting of room controller module

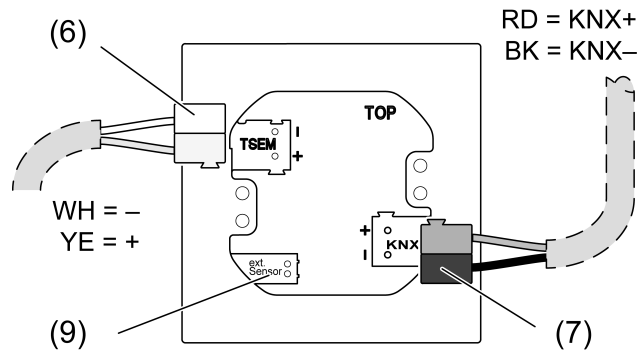


Figure 4: Rear view, room controller module

- (1) Supporting frame
- (2) Frame
- (3) Room controller module
- (4) Fastening screws, plastic
- (5) Buttons
- (6) Connection terminal for extension module (optional)
- (7) KNX connection terminal
- (8) Box screws
- (9) Remote sensor connection (optional)



DANGER!

Device defect if KNX voltage is applied between one of the KNX terminals and one of the other connections.

The device can be damaged.

Only connect the KNX voltage to the device connection terminal (7) with the red and black bus terminal.

Recommended installation height: 1.50 m.

Do not mount the device near sources of interference, such as electric cookers, refrigerators, draughts or direct sunlight. This influences the temperature measurement of the controller.

- Mount supporting frame (1) in the right orientation on an appliance box. Note marking **TOP**. Use only the enclosed box screws (8).
- Push frame (2) onto supporting frame.
- Connect the room controller module (3) to the KNX using the device connection terminal (7) and push it onto the supporting frame.



DANGER!

Danger of electrical shock!

When mounting with 230 V socket outlets under a common cover there is a danger of electrical shocks in the event of a fault!

Use only the enclosed plastic screws for fastening to the supporting frame!

- Fasten the room controller module to supporting frame using the enclosed plastic screws (4). Tighten the plastic screws only lightly.

Installing the buttons

- Place the buttons on the device in the correct orientation and snap in with a short push.

Loading the physical address and application software

Project design and commissioning with ETS4.2 or more recent.

- i** If the device does not contain any application software, or contains the wrong application software, then the top status LEDs flash: blue | off | red | off; 0.75 Hz.

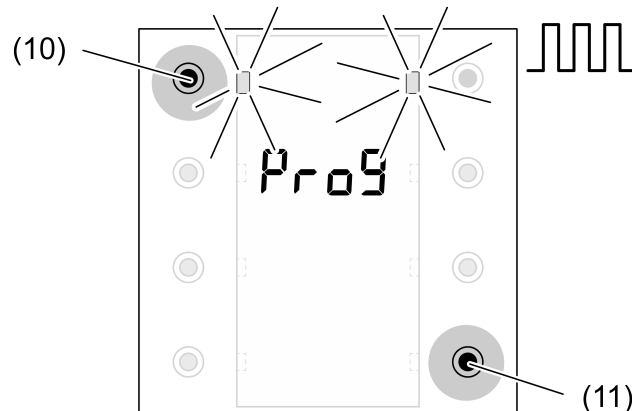


Figure 5: Activating programming mode

- Activate programming mode: Press and hold push-button at the upper left (10). Then press push-button at the lower right (11).
The top status LEDs flash:
blue | red | blue | red; 4 Hz.
The display alternately shows **Prog** and the firmware version.
- Load the physical address into the device.
The LEDs return to their previous state – off, on, or flashing slowly.
- Write the physical address on the device label.
- Load the application software into the device.

5 Technical data

KNX medium

Commissioning mode

TP

S-mode

Rated voltage KNX	DC 21 ... 32 V SELV
Current consumption KNX without TSEM	max. 15 mA
with TSEM	max. 20 mA
Ambient temperature	-5 ... +45 °C
Storage/transport temperature	-25 ... +70 °C
Protection class	III

6 Accessories

Cover kit 2-gang	..502 TSA..
Cover kit 4-gang	..504 TSA..
Room controller extension module 2-gang	..5178TSEM
Push-button extension module, 1-gang	..5091TSEM
Push-button extension module, 2-gang	..5092TSEM
Push-button extension module, 3-gang	..5093TSEM
Push-button extension module, 4-gang	..5094TSEM
External temperature sensor	FFNTC

7 Warranty

The warranty is provided in accordance with statutory requirements via the specialist trade.

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