

KNX

JUNG

Operating instructions

Room controller display module 2-gang

Art. no. ..5292 D1 ST

Room controller display module 4-gang

Art. no. ..5294 D1 ST



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Product image non-binding

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1 Safety



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

Serious injuries, fire or property damage are possible. Please read and follow the 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.

Danger of electric shock. Make sure during the installation that there is always sufficient insulation between the mains voltage and the bus. A minimum distance of at least 4 mm must be maintained between bus conductors and mains voltage cores.

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

2 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.

The device can be updated. Firmware can be easily updated with the Jung ETS Service App (additional software).

The device is KNX Data Secure capable. KNX Data Secure offers protection against manipulation in building automation and can be configured in the ETS project. Detailed technical knowledge is required. A device certificate, which is attached to the device, is required for safe commissioning. During mounting, the device certificate must be removed from the device and stored securely.

Planning, installation and commissioning of the device are carried out with the aid of the ETS, version 5.7.7 and higher or 6.1.1.

3 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
- Mounting in appliance box with dimensions according to DIN 49073

4 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 of push-button sensor extension module
- Integrated room temperature sensor
- Remote sensor can be connected
- Room temperature control with setpoint value specification
- Two internal independent controllers for controlling two rooms
- Room or setpoint temperature indication (°C or °F)
- Indication of outdoor temperature – with external sensor, e.g. weather station
- Time indication, 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

5 Operation

The operation described here depends on the parameterisation of the device.

Operating a function or load

- Switch: Short press on button.
- Dim: Long press on 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 indication 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 7 °C / 45 °F.
- Comfort extension, night
- Comfort extension, frost protection
- ... Fan controller with fan level indication. = Fan off.
- ... Heating mode with heating stage indication
- ... Cooling mode with cooling step indication
- ... -- ▼ 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.

- Time indication
- Indication of various temperatures
- **1con1**: Submenu Controller 1
- **2con2**: Submenu Controller 2
- **disp**: Submenu Display
- **End**: Exit menu

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

- Temperature for Comfort mode
- Change for Heating standby mode
- 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
- Current room temperature indication
- Current temperature setpoint indication
- Current outdoor temperature indication
- Indication of any temperatures 1..3

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

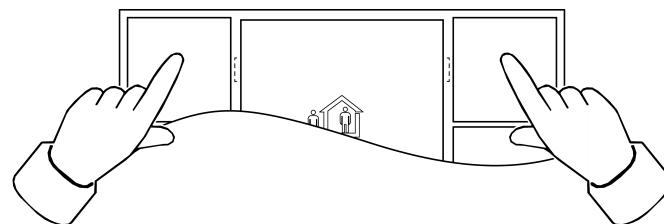


Figure 1: Opening or exiting a menu

Precondition: The menu is programmed and not disabled.

- Switching to the menu: Press the top two buttons simultaneously (see figure 1).
- Exiting a menu: Press the top two buttons simultaneously (with or without saving is dependent on the programming).
- Select next menu item: Press the \downarrow 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.

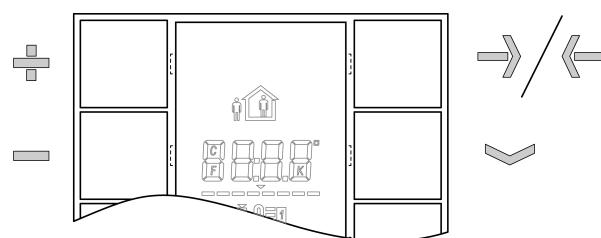


Figure 2: Menu buttons

6 Information for electrically skilled persons



DANGER!

Electric shock when live parts are touched.

Electric shocks can be fatal.

Cover up live parts in the installation environment.

6.1 Mounting and electrical connection

Mounting and connecting the device

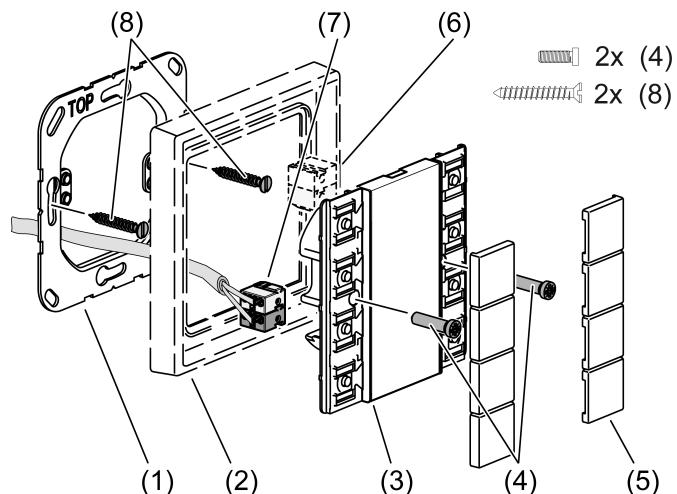


Figure 3: Mounting of room controller module

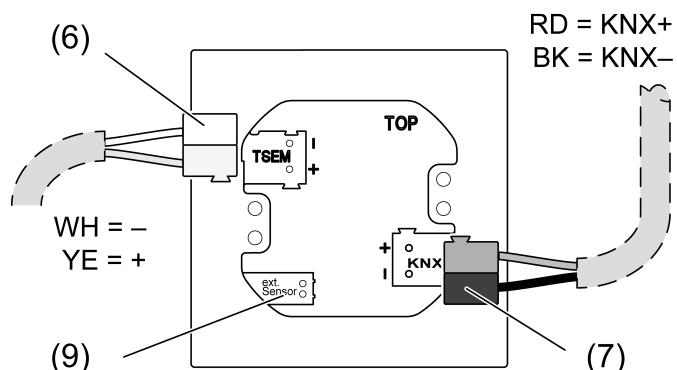


Figure 4: Rear view, room controller module

- (1) Supporting frame
- (2) Frame
- (3) Room controller module
- (4) Fastening screws, plastic
- (5) Buttons
- (6) Device connection terminal for extension module (optional)
- (7) KNX device 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 would influence the temperature measurement of the controller.

- Mount supporting frame (1) in the right orientation on an appliance box. Note the 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.

6.1.1 Commissioning

Preconditions in secure operation

- Secure commissioning is activated in the ETS.
- Device certificate entered/scanned or added to the ETS project. A high resolution camera should be used to scan the QR code.
- Document all passwords and keep them safe.

Programming the physical address and application software

- i** Project design and commissioning with ETS version 5.7.7 and higher or 6.1.1.

The device is connected and ready for operation

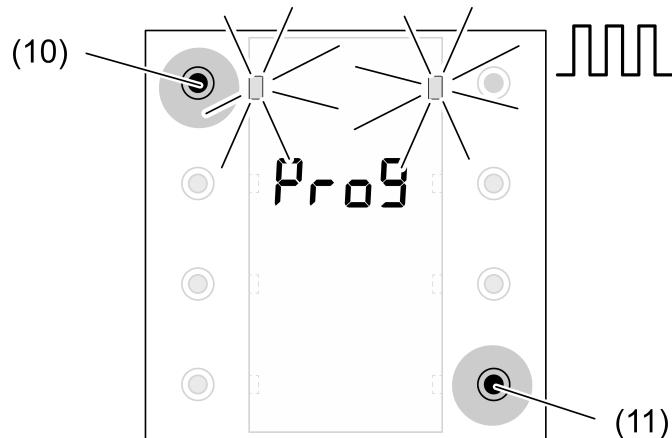


Figure 5: Activating programming mode

- 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 at 8 Hz.
The display alternately shows **Prog** and the firmware version.
- Load the physical address into the device.
- Write the physical address on the device label.
- Load the application software into the device.

Installing the buttons

The buttons are available as a complete set of buttons (see accessories).

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

6.1.1.1 Safe-state mode

The safe-state mode stops the execution of the loaded application program.

If the device does not work properly - for instance as a result of errors in the project design or during commissioning - the execution of the loaded application program can be halted by activating the safe-state mode. The device remains passive in safe-state mode, since the application program is not being executed (state of execution: terminated).

Only the system software of the device is still functional. ETS diagnosis functions and programming of the device are possible.

Activating safe-state mode

- Switch off the bus voltage.
- Press and hold down the top left and bottom right button.
- Switch on the bus voltage.

The safe-state mode is activated. The top LEDs flash slowly (approx. 1 Hz, blue) and SAFE is shown on the display.

- i** Only release the buttons when the upper LEDs are flashing.

Deactivating safe-state mode

- Switch off the voltage or carry out ETS programming.

6.1.1.2 Master reset

The master reset restores the basic device settings (physical address 15.15.255, firmware remains in place). The device must then be recommissioned with the ETS.

In secure operation: A master reset deactivates device security. The device can then be recommissioned with the device certificate.

If the device - for instance as a result of errors in the project design or during commissioning - does not work properly, the loaded application program can be deleted from the device by performing a master reset. The master reset restores the basic device settings. Afterwards, the device can be put into operation again by programming the physical address and application program.

Performing a master reset

Precondition: The safe-state mode is activated.

- Press and hold the button at the top left and the button at the bottom right for more than five seconds until the top status LED flashes quickly (approx. 4 Hz, red).
- Release the buttons.

The device performs a master reset.

The device restarts.

Resetting the device to its default settings

Devices can be reset to factory settings with the ETS Service App. This function uses the firmware contained in the device that was active at the time of delivery (delivered state). Restoring the factory settings causes the devices to lose their physical address and configuration.

7 Flashing frequencies of the LEDs

State of operation	Status LED	Remarks
Application discharged	With On button pressed (red, green, blue)	
Safe-state mode	Approx. 1 Hz (blue)	Only status LED 1 + 2

State of operation	Status LED	Remarks
Flashing status	Approx. 2 Hz	
Alarm signal	Approx. 2 Hz (red)	All status LEDs
Master reset	Approx. 4 Hz (red)	Only status LED 1 + 2
Programming mode	Approx. 8 Hz (blue)	Only status LED 1 + 2
Full-surface operation	Approx. 8 Hz	Status LED of the operated rocker

8 Technical data

KNX medium	TP
Commissioning mode	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

9 Accessories

Cover kit 2-gang	..502 TSA..
Cover kit 4-gang	..504 TSA..
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

10 Warranty

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

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