KNX 2100 Continuous Regulator Instruction Manual

Operating instructions
Continuous regulator
Order no. 2100 ..

Product image non-binding
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Contents

Safety instructions

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.
Danger of electric shock at the KNX installation. Do not connect any external voltage to the inputs. The device can become damaged, and the SELV potential on the KNX bus line will no longer be available.
This manual is an integral part of the product, and must remain with the customer.
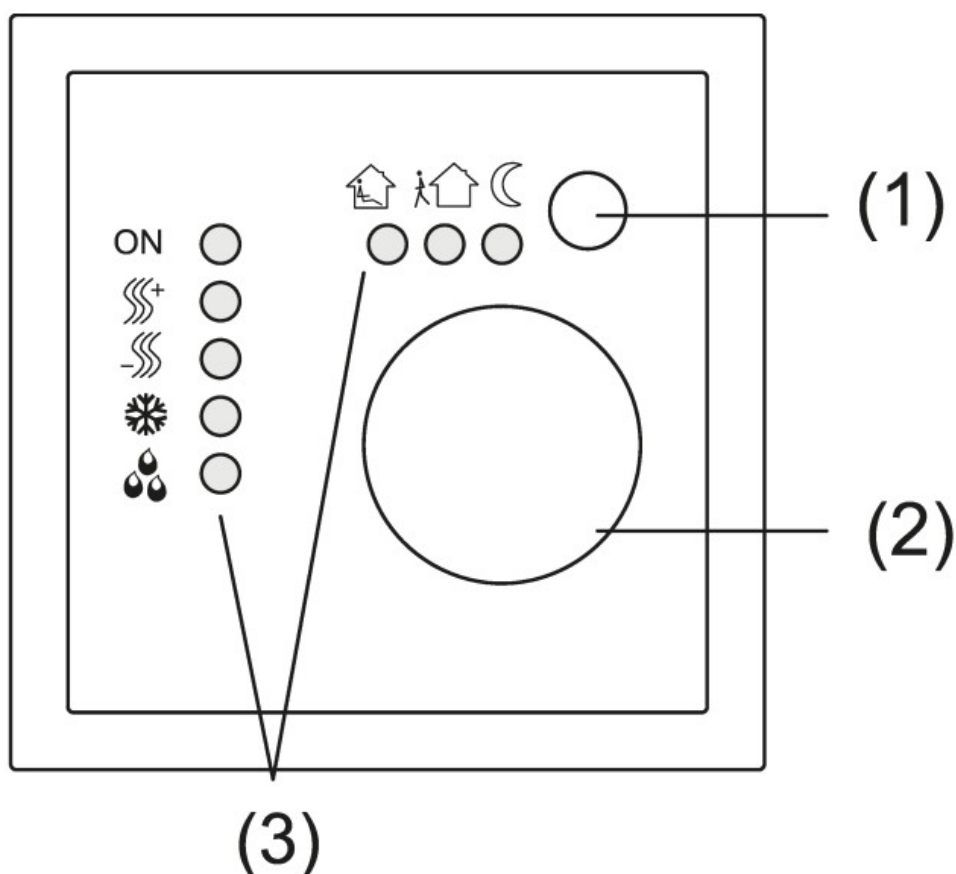
Device components

Figure 1: Controls and indicators

(1) Presence button
(2) Adjustment dial
(3) Status LED

Function

Intended use

- Single-room temperature control in KNX installations
- Load types: LED or electronic relay
- Mounting in appliance box with dimensions according to DIN 49073

Product characteristics

- Measurement of the room temperature and comparison with the setpoint tem- perature
- Setpoint specification by selecting the operating mode
- Operating modes: comfort, standby, night operation, frost/heat protection
- Heating and cooling mode
- Heating and cooling with basic and additional level
- Dial for setpoint adjustment
- Presence button
- Status LED
- Push-button interface with four inputs or two outputs and two inputs, e.g. for window contacts, push-buttons, LEDs, etc.
- Function of the inputs: switching, dimming, shutter control, light scene exten- sion unit, brightness or temperature value transmitter
- Optional: external temperature sensor, connectable (accessories)

Functional description
The controller compares the current room temperature with the setpoint temperature and controls the heating and cooling devices according to the current demand. The setpoint temperature is determined by the set operating mode and can be varied with the adjustment dial (2). The selected operating mode and the current controller status are indicated by the status LED (3) (see figure 1).

Operation

Operating modes and Status LED
Each heater requires a certain time to bring a cooled room to the desired temperat- ure. For this reason, in the event of brief absence, the room temperature can be lowered only slightly, e.g. by 2 K, and at night by somewhat more, e.g. 4 K. The controller has various operating modes available for this.
Icons of the electronics cover:

⌂		Comfort operating mode
🚶⌂		Standby operating mode
☾		Night operating mode
❄		Frost/heat protection operating mode
⌂☾		Comfort extension / night operating mode
⌂❄		Comfort extension / frost / heat protection operating mode
ON		Heating/cooling indication active
⌇⁺		Heating mode indication
⁻⌇		Cooling mode indication
💧		Controller blocked indication, dewpoint operation

Setting the operating mode

Operating elements for setting the operating mode via the bus are installed, e.g. push-buttons sensors.
  Activate the desired operating mode on the operating element.
Setpoint temperature for the room is set according to the new operating mode.
The new operating mode is indicated by the status LED (3) (see fig. 1).

[i] When the controller state is changed, it may take up to 30 seconds for the status LED indication to change.

Changing the room temperature

- Turn the adjustment dial clockwise.

  The setpoint temperature is increased.

- Turn the adjustment dial counterclockwise.

  The setpoint temperature is lowered.

Activating comfort extension

For automatic changeover from comfort operating mode either to night or frost/heat protection operating mode by a timer, it is possible to extend the comfort mode. The programmed time for the presence button is taken into account here.
The controller is in night or frost/heat protection operating mode.

  Press the presence button (1) (see Fig. 1).
The status LED ⌂☾ or ⌂❄ light up.
Comfort mode is extended by the programmed time.
Once the programmed time expires, the original operating mode night or frost/ heat protection is restored.

[i] The comfort extension can also be activated automatically, e.g. by a presence detector.

Information for electrically skilled persons

5.1 Mounting and electrical connection

⚠ DANGER!

Electric shock when live parts are touched.

Electric shocks can be fatal.

Cover up live parts in the installation environment.

Mounting notes

Do not use controllers in multiple combinations with electrical devices. Their heat de- velopment will influence the temperature measurement of the controller.

Do not mount controllers near sources of interference, such as electric cookers, refri- gerators, draughts or direct sunlight. This would influence the temperature measure- ment of the controller.

Observe the routing conditions for SELV.

Do not route input cables parallel to mains cables. Otherwise there might be EMC in- terference.

Recommendation: Use a deep appliance box.

The optimum installation height is approx. 1.5 m.

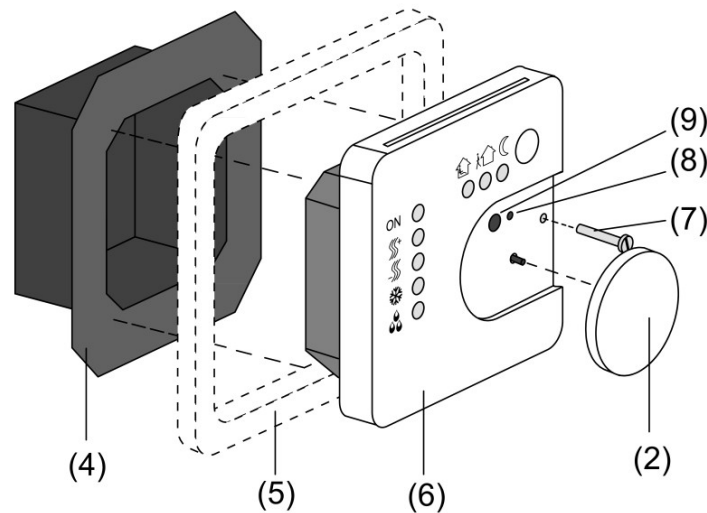Mounting and connecting the device

Figure 2: Device components

(4) Connection terminal insert

(5) Cover frame

(6) Electronics cover

(7) Retaining screw

(8) Programming LED

(9) Programming button

  Separate the connection terminal insert (4) and the electronics cover (6) (see figure 2).

  Connect the bus line to the device connection terminal (11) in the connection terminal insert (see figure 3).

Figure 3: Connection terminal insert

Binary inputs E1…E4: Connect the NO or NC window contacts as switches or push-buttons to the connection terminals 1 and 2…5 (see figure 4) of the terminal strip (10) (see figure 3).

Binary outputs A1…A2: Connect the LED or electronic relay to the connection terminals 1 and 2, 3 (see figure 5) of the terminal strip (10) (see figure 3).

[i] The specification of the function as inputs/outputs depends on the ETS programming.

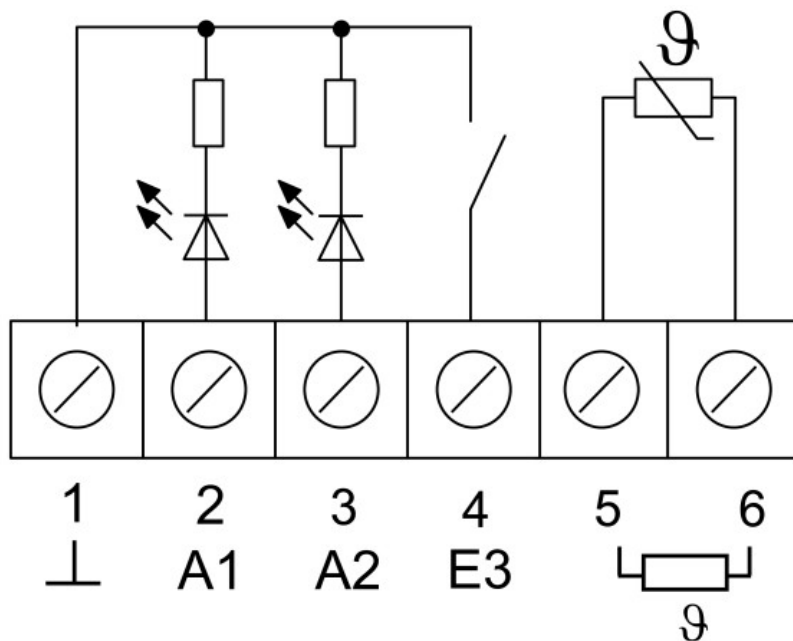Figure 4: Connection of binary inputs

Figure 5: Connection of binary outputs

Optional: Route an external temperature sensor in an empty pipe and guide the sensor head out at the measurement location.

Select the installation location for the temperature sensor so that it can measure the temperature without any influence from sources of interference.

  Connect the external temperature sensor to the connection terminals 5 and 6 (see figure 5) of the terminal strip (10) (see figure 3).

[i] The sensor cable can be extended up to a maximum of 50 m with a twisted pair cable, e.g. J-Y(St)Y-2x2x0.8. When using the KNX bus line: use a second pair of yellow/white cores.

  Insert the connection terminal insert (4) (see figure 2) in the flush-mounted appliance box. Observe the labelling OBEN / TOP. The bus connection (11) must be at the bottom, right (see figure 3).

  Fit the cover frame (5) on the connection terminal insert (4).

  Insert the electronics cover (6) in the correct position into the connection ter- minal insert (4).

  Remove the adjustment dial (2).

  Fasten the electronics cover with the retaining screw (7).

  Reattach the adjustment dial (2).

5.2 Commissioning

Loading the address and the application software

  Pull off the adjustment dial (2) (see figure 2).

  Press the programming button (9).

The programming LED (8) is illuminated.

  Assign a physical address.

The programming LED (8) goes out.

  Note down the physical address on the connection terminal insert and on the back of the electronics cover.

[i] Observe the correct assignment of inserts and covers when assembling after painting or wallpapering.

  Refit the adjustment dial (2).

  Download the application software, parameters, etc.

Appendix

6.1 Technical data

KNX medium	TP256
Commissioning mode	S mode
Rated voltage	DC 21 … 32 V SELV
Current consumption KNX	Max. 7.5 mA
Connection bus	Device connection terminal
Ambient temperature	-5 … +45°C
Storage/transport temperature	-25 … +70°C
Output current	0.8 mA
Inputs and outputs	
Cable type	J-Y(St)Y 2x2x0.8
Cable length	Max. 5 m
Temperature sensor cable length	Max. 50 m

6.2 Accessories
Remote sensor Order no. 1493 00

6.3 Warranty
The warranty is provided by the specialist trade in accordance with statutory requirements. Please submit or send faulty devices postage paid together with a fault description to your responsible salesperson (specialist trade / installation company /electrical
specialist trade). They will forward the devices to the Gira Service Center.

Documents / Resources

KNX 2100 Continuous Regulator [pdf] Instruction Manual
2100, 2100 Continuous Regulator, Continuous Regulator, Regulator

References

- 🌐 **Gira Fernfühler**
- 🌐 **Suche**
- **Schalter, Steckdosen & smarte Technik | Gira**
- **User Manual**