KNX

GIRA

# Operating instructions

## Continuous regulator
Art. no. 2100 ..


Product image non-binding

32561942 / 10872280 / 24.10.2025

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# 1 Safety instructions

To avoid potential damage, read and follow the following instructions:

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

**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.**

**Instructions are part of the product. So keep them in a safe place.**

# 2 Device components

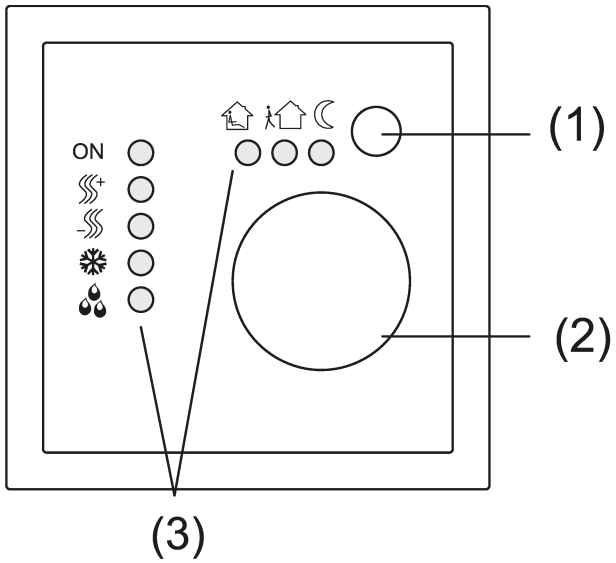


Figure 1: Controls and indicators

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

# 3 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 temperature
- 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 extension 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).

# 4 Operation

## Operating modes and Status LED

Each heater requires a certain time to bring a cooled room to the desired temperature. 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).

ⓘ 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.

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

# 5 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 development will influence the temperature measurement of the controller.

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

Observe the routing conditions for SELV.

Do not route input cables parallel to mains cables. Otherwise there might be EMC interference.

Recommendation: Use a deep appliance box.

The optimum installation height is approx. 1.5 m.

### Mounting and connecting the device

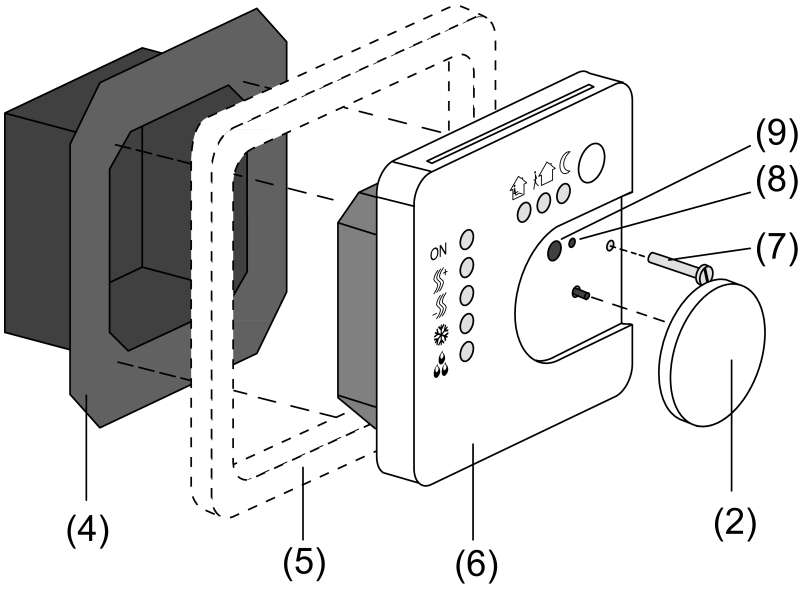


Figure 2: Device components

(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).

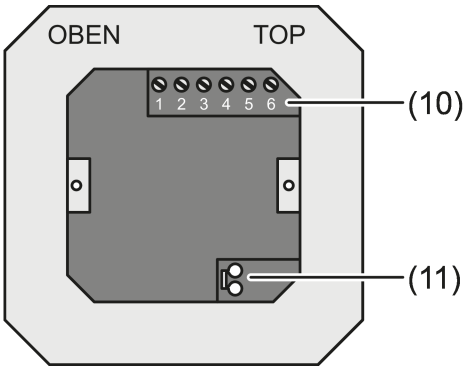


Figure 3: Connection terminal insert

- 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).

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

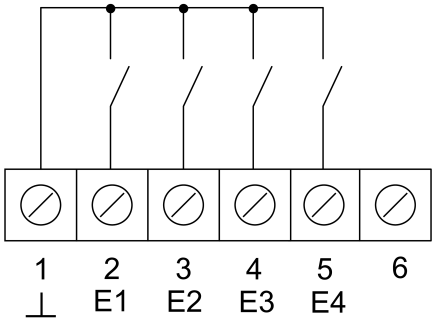


Figure 4: Connection of binary inputs

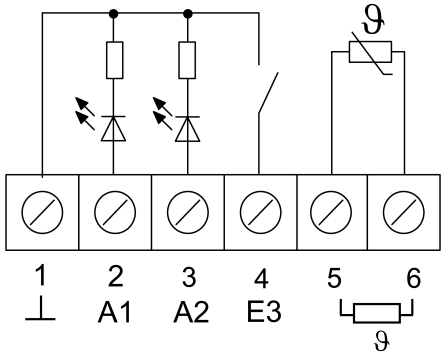


Figure 5: Connection of binary outputs

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 terminal 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.

# 6 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 2×2×0.8 |
| Cable length | Max. 5 m |
| Temperature sensor cable length | Max. 50 m |
| | |
| **Information according to ErP 2009/125/EC** | |
| Electronic room temperature controller | Yes |
| Power consumption | |
| In networked standby mode | 1 W |
| In standby mode with information and status display | Yes |
| This controller fulfils the following control functions | TE(1/2/3/0/0/0/0/0) |

### 6.1.1 Product information in accordance with the Ecodesign Directive (ErP 2009/125/EC)

| Contact details:<br>Gira Giersiepen GmbH & Co. KG, Dahlienstraße, 42477 Radevormwald, Germany | | | |
|---|---|---|---|
| Model identifier:<br>Continuous regulator, 2100 .. | | | |
| **Specification** | **Icon** | **Value** | **Unit** |
| **Power consumption** | | | |
| In the off state | $P_0$ | - | W |
| In standby mode | $P_{sm}$ | - | W |
| In idle state | $P_{idle}$ | - | W |
| In networked standby mode | $P_{nsm}$ | 1 | W |
| In standby mode with information or status display | | Yes | |
| **Type** | | | |
| Single-stage heat output,<br>no room temperature control | | No | |
| Two or more manual levels,<br>no room temperature control | | No | |
| Room thermostat with mechanical thermostat | | No | |
| Electronic room temperature controller | | Yes | |
| Electronic room temperature controller<br>with time-of-day control | | No | |
| Electronic room temperature controller<br>with weekday regulation | | No | |
| **Other control options** | | | |
| Presence detection | | Yes | |
| Detection of open windows | | Yes | |
| Remote control option | | Yes | |
| Adaptive control of the start of heating | | No | |
| Operating time limit | | No | |
| Black ball sensor | | No | |
| Self-learning function | | No | |
| Control accuracy | | No | |

#### Codes of the control functions

The format of the code is TC (f1/f2/f3/f4/f5/f6/f7/f8), where TC is the code for temperature control and f1 to f8 are the codes for the respective control functions, if available; otherwise "0" must be specified.

| | | (TC)* | Control functions | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | f1 | f2 | f3 | f4 | f5 | f6 | f7 | f8 |
| Type of temperature control | Single-stage heat output, no room temperature control | NC | | | | | | | | |
| | Two or more manual levels, no room temperature control | TX | | | | | | | | |
| | Room thermostat with mechanical thermostat | TM | | | | | | | | |
| | Electronic room temperature controller | HP | | | | | | | | |
| | Electronic room temperature controller with daytime control | TD | | | | | | | | |
| | Electronic room thermostat with weekday control | TW | | | | | | | | |
| Control functions | Presence detection | | 1 | | | | | | | |
| | Detection of open windows | | | 2 | | | | | | |
| | Remote control option | | | | 3 | | | | | |
| | Adaptive control of the start of heating | | | | | 4 | | | | |
| | Operating time limit | | | | | | 5 | | | |
| | Black ball sensor | | | | | | | 6 | | |
| | Self-learning function | | | | | | | | 7 | |
| | Control accuracy with CA < 2 Kelvin and CSD < 2 Kelvin | | | | | | | | | 8 |

* Temperature control code

## 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.

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