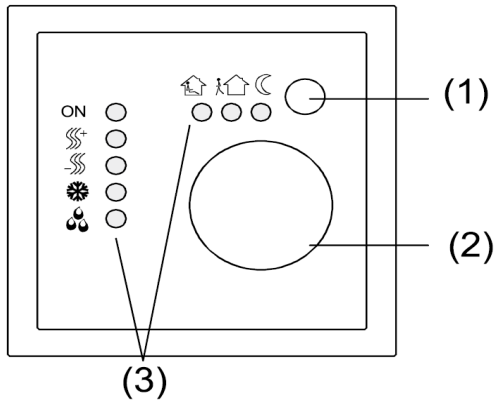
Continuous-action regulator

Order no.: 2100 xx

Device layout

(1) Presence button
(2) Adjusting wheel
(3) Status LED

1



Safety instructions

Electrical equipment must be installed and fitted by qualified electricians only.

Failure to observe the instructions may cause damage to the device and result in fire or other hazards.

Do not connect external voltages to the inputs.

Risk of damage to the device. SELV potential on the KNX/EIB bus line is no longer ensured.

These operating instructions are part of the product and must be left with the final customer.

Function

System information

This device is a product of the Instabus-KNX/EIB system and complies with KNX directives. Detailed technical knowledge obtained in KNX training courses is a prerequisite to proper understanding.
The functionality of this device depends on the software. Detailed information on software versions and attainable functionality as well as the software itself can be obtained from the manufacturer‘s product database.
Planning, installation and commissioning of the unit is effected by means of KNX-certified software. The full functionality with KNX commissioning software is available from version ETS3.0d onwards.
The product database, technical descriptions, conversion programs and other utilities are always available in their latest versions in the Internet under www.gira.de.

Designated use

- Single-room temperature regulation in Instabus-KNX/EIB installations
- Flush-mounted installation in hollow or in solid walls.

Product features

- Measurement of the room temperature and comparison with the temperature reference value
- Reference value preset by selecting the mode of operation
- Operating modes ‚comfort‘, ‚standby‘, ‚night-time‘, ‚frost/heat protection‘
- Heating and cooling
- Heating and cooling at basic and backup levels
- Adjusting wheel
- Presence button
- Status LED
- Pushbutton interface with four potential-free inputs or two outputs, e.g. for window contacts, pushbuttons, LEDs, etc.
- Input functions: Switching, dimming, shutter control, light-scene extension, brightness or temperature value transmitter
- Option: external temperature sensor for room temperature measurement

Operation

Operating modes and status-LED

The regulator compares the actual room temperature to the preset reference temperature and adjusts heating and cooling installations in accordance with the respective energy requirements. The temperature reference value depends on the respective operating mode and can be varied with the adjusting wheel (Fig. 1, 2) The operating modes and the current regulator status are indicated by means of status LEDs (Fig. 1, 3):

	Comfort mode
	Standby mode
	Night-time mode
	Frost/heat protection mode
	Comfort prolongation mode (night)
	Comfort prolongation mode (frost/heat protection)
ON	Heating/cooling active indicator
	Heating mode indicator
	Cooling mode indicator
	Controller locked indicator (dew-point mode)

The indication of the controller status can last up to 30 s.

Setting the mode of operation

Control elements for setting the operating mode are installed, e.g. touch sensors, control panels, etc.

- Activate the desired mode of operation with the corresponding control element.

  The new operating mode is indicated by means of status LEDs (Fig. 1, 3).

  The reference temperature for the room is set in accordance with the selected operating mode.

Changing the room temperature

- To increase the reference temperature: turn the adjusting wheel clockwise.
- To lower the reference temperature: turn the adjusting wheel counter-clockwise.

Room temperature regulation function

Every heating system needs a certain time to raise the temperature of a room that has cooled down back to the desired temperature. For this reason, the room temperature can be allowed to drop only by a small amount during a brief absence, e.g. by 2 °C and a little bit more overnight, e.g. by 4 °C.

To cope with these situations, the regulator has different modes of operation.

Activating the comfort prolongation

It is desired to prolong the comfort mode for a certain time beyond the preset automatic switch-over of the operating mode. This can be ensured by the comfort prolongation.The time for which the comfort prolongation mode can be prolonged is limited.

The regulator is in the night-time mode or in the frost/heat protection mode.

- Press the presence button (Fig. 1, 1).

  The LEDs or are lit up.

  The reference temperature of the comfort mode is now active for the pre-programmed time.

  After the end of the programmed time span, the originally set night-time or frost/heat protection mode is resumed.

The comfort prolongation can also be activated automatically, e.g. from a presence detector.

Information for qualified electricians

DANGER!

Electric shock in case of accidental contact with live parts. Electric shocks may be fatal.
Before working on the device, disconnect the supply voltage and cover up live parts in the working environment.

Fitting and electrical connection

Fitting and connecting the device

The device is composed of a terminal insert with supporting ring and electronic attachment module (Fig. 2).

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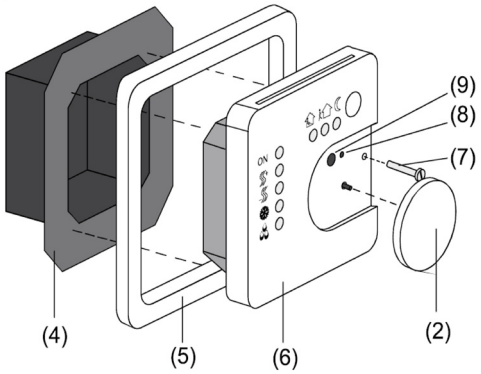

Do not use the regulator together with other electrical devices in the same combination since the heat produced by these devices may influence the temperature measurement of the regulator.

Do not use the regulator in the vicinity of heat sources such as electric ranges, refrigerators, draughts of air or insolation to avoid wrong temperature measurements.

The optimal fitting height is about 1.5 m.
Install the device in a flush-mounting box as per DIN 49073 or in a surface-mounting box.

Recommendation: Use the deep type of box.

Do not run input lines parallel to mains lines.
Risk of undesired EMC irradiation disturbances.

Observe the laying specifications for SELV.

- Detach the electronic attachment module (Fig.2, 6) from the terminal insert (Fig. 4, 2).
- Connect the bus line to the terminal insert using the connecting terminals (Fig. 3, 11).

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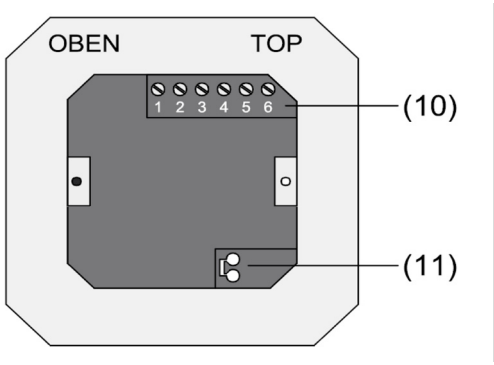
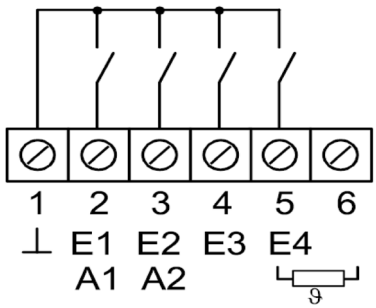


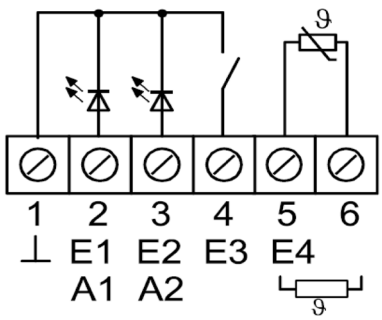
- Connect the binary inputs E1…E4: window contacts, pushbuttons with make or break contacts to the terminal strip (Fig. 3, 10) between terminals 1 and 2…5 (Fig. 4 A).

4A



- Connect the binary ouputs A1…A2: LEDs or electronic relays to the terminal strip (Fig. 3, 10) between terminals 1 and 2...3 (Fig. 4 B).

4B



Lay the external temperature sensor in an empty cable duct. When laying the temperature sensor in the floor, use a sensor protection sleeve und seal it off against tiling adhesives and screed to prevent the sensor from being damaged by these materials.

Select the fitting location for the temperature sensor so that it can measure the temperature without being affected by external influences.

- Connect the external temperature sensor to the terminal strip (Fig. 3, 10) between terminals 5 and 6 (Fig. 4 B).

> The sensor connection can be extended to 50 m max. by using twisted pair cable, e.g. J-Y(St)Y-2x2x0.8.
> If the Instabus-KNX/EIB bus line is used: use the second pair of conductors (yellow-white).

Commissioning

Physical address and application software

Use the commissioning software from ETS2 version 1.2 onwards.

- Withdraw the adjusting wheel (Fig. 2, 2).
- Press the programming button (Fig. 2, 9).
  The programming LED (Fig. 2, 8) is illuminated.
- Assign the physical address.
  The programming LED (Fig. 2, 8) is off.
- Note the physical address on the terminal insert and on the back of the electronic attachment module. To do so, perform the installation steps in reverse order.

> When carrying out painting and paperhanging work make sure the attachment modules are correctly matched with the inserts.

- Put the adjusting wheel (Fig. 2, 2) back in place.
- Download the application software, parameters etc.

- Install the terminal insert (Fig. 2, 4) in the flush-mounting box. Pay attention to the lettering **OBEN/ TOP.**
  The bus connection (Fig. 3, 11) must be at the bottom.
- Place the design frame (Fig. 2, 5) on the terminal insert (Fig. 2, 4).
- Install the electronic attachment module in the correct position on the terminal insert.
- Withdraw the adjusting wheel (Fig. 2, 2).
- Fix the electronic attachment module with the safety screw (Fig. 2, 7).
- Put the adjusting wheel (Fig. 2, 2) back in place on the module.

Technical data

KNX medium:	TP1
Commissioning mode:	S mode
KNX/EIB supply:	21...32 V DC
KNX/EIB current rating:	max. 10 mA
KNX/EIB connection:	connecting terminal
Binary outputs Load types:	LEDs or electronic relays
Output voltage / current:	5 V / 0.8 mA
Cable type Binary inputs and outputs:	J-Y(St)Y 2 x 2 x 0.8 mm

Temperature sensor:	ready-made connecting cable 0.75 mm^2 J-Y(St)Y 2 x 2 x 0.8 mm
Line length for binary inputs:	max. 5 m
Line length for binary outputs:	max. 5 m
Line length for temperature sensor:	max. 50 m
Ambient temperature:	-5 °C ...+45 °C
Storage temperature:	-25 °C ...+70 °C

Accessories

Remote sensor:	Order no. 1493 00

Acceptance of guarantee

We accept the guarantee in accordance with the corresponding legal provisions.

Please return the unit postage paid to our central service department giving a brief description of the fault:

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Giersiepen GmbH & Co. KG
Service Center
Dahlienstrasse 12
D-42477 Radevormwald

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