

DELTA i-system	Temperature controller	UP 237	5WG1 237-2AB_1
DELTA profil	Temperature controller	UP 252	5WG1 252-2AB_3
DELTA style	Temperature controller	UP 254	5WG1 254-2AB_3
DELTA ambiente	Temperature controller	UP 253	5WG1 253-2AB_3

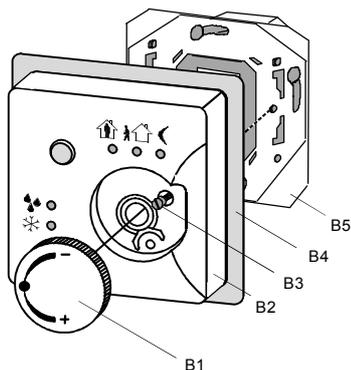


Product	DELTA i-system	DELTA profil
Temperature controller	titanium white 5WG1 237-2AB11 carbon metallic 5WG1 237-2AB21 aluminum metallic 5WG1 237-2AB31	pearl grey 5WG1 252-2AB03 titanium white 5WG1 252-2AB13 anthracite 5WG1 252-2AB23 silver 5WG1 252-2AB73
Frames	ordered separately from the DELTA ranges	
	---	cut out frames
Bus coupling unit	UP 110; UP 114	



Product	DELTA style	DELTA ambiente
Temperature controller	titanium white / metallic silver 5WG1 254-2AB13 basalt black / metallic silver 5WG1 254-2AB23 platinum metallic 5WG1 254-2AB43	arctic white 5WG1 253-2AB03
Frames	ordered separately from the DELTA ranges	
Bus coupling unit	UP 110; UP 114	

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- B1 Rotary button *)
- B2 Temperature controller *)
- B3 Fixing screw *)
- B4 Frame
- B5 Bus coupler UP

*) included with supply

Diagram 1: Installation of the temperature controller

Product and Applications Description

The temperature controller can be used both as a two-step controller (thermostat) or as a continuous controller (P, PI controller) both for pure heating or cooling mode and for combined heating and cooling operation.

The associated application program compares the actual temperature measured by the temperature controller with the required setpoint temperature and calculates the relevant control variable. This control variable is then either transmitted as a switching command (ON/OFF) to switch actuators (such as the binary output UP 562) to control electrothermal valve drives in two-step control or as a positioning command (0... 100 %) for controlling a motor-driven valve drive in continuous control.

The clear and self-explanatory operator interface contains 5 LEDs for displaying the current operating state, a presence button for toggling between comfort and standby mode and vice versa as well as a rotary button for adjusting the basic setpoint.

The temperature controller is placed on the flush-mounted bus coupler together with the relevant DELTA frame and is only able to function in connection with the bus coupler and the associated application program.

The flush-mounted bus coupler and the appropriate frames are not included with supply and must be ordered separately.

Using the ETS program, the application programs can be selected and the specific parameters and addresses can be assigned.

Application programs

11 S1 Temperature Control 210B04

- heating, cooling, mixed heating and cooling modes
- ambient temperature control allowing to adjust the set-point base via parameter and/or via the bus.
- parameters for set-points, convenience temperature adjustments, measured ambient temperature, and control type are available
- convenience/stand-by modes can be selected via the device's push button and/or via the bus.
- off-peak reduction mode can be set via the bus
- frost/heat protection can be set via the bus
- dew-point alarm mode can be activated via the bus
- switching between heating and cooling modes provided
- set point and actual temperature can be read via the bus
- direct action or reverse action for heating/cooling are provided
- operating state (controller state) can be read via the bus

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Installation instructions

- The device can be used for permanent interior installations, in dry rooms and for insertion in flush-type boxes.



DANGER

- The device may only be installed and commissioned by an authorized electrician.
- The device may not be inserted in the same box as 230 V devices.
- The device may be used in switch sockets, if VDE approved devices have been used.
- The prevailing safety and accident regulations must be observed.
- The device may not be opened.
- For planning and construction of electric installations, the relevant guidelines, regulations and standards of the respective country are to be considered.

Technical data

Power supply

- via the flush-mounted bus coupler

Temperature measurement

- Measuring range: 0 ... + 40 °C
- Resolution: 0.08 K
- Accuracy of the sensor temperature:
± 1.0 K under reference conditions,
± 2.0 K under ambient conditions and in measuring range

Operating elements

- 1 rotary button for manual adjustment of the setpoint (control range dependent on the parameter setting)
- 1 presence button for toggling between comfort and standby mode and vice versa

Display elements

- 3 green LEDs for the current operating mode (comfort, standby, night reduction)
- 1 red LED for frost/heat protection
- 1 yellow LED for dew point alarm

Connections

- 10-pole plug connector (PEI): for connection to the flush-mounted bus coupler

Mechanical data

- Housing: plastic
- Dimensions:
 - Temperature controller UP 237:
(L x W x D): 55 x 55 x 16 mm (without spring)
 - Temperature controller UP 252, UP 253:
(L x W x D): 65 x 65 x 16 mm (without spring)
 - Temperature controller UP 254
(L x W x D): 68 x 68 x 16 mm (without spring)
- Weight: approx. 30 g
- Fire load: approx. 730 kJ ± 10 %
- Installation: placed onto the flush-mounted bus coupler and screwed in position

Electrical safety

- Degree of pollution (according to IEC 60664-1): 2
- Type of protection (according to EN 60529): IP 20
- Protection class (according to IEC 61140): III
- Overvoltage category (according to IEC 60664-1): III
- Bus: safety extra-low voltage SELV DC 24 V
- Device complies with
EN 50090-2-2 and IEC 60664-1: 1992

Reliability

- Failure rate: < 500 fit at 40 °C

EMC requirements

- Complies with EN 50081-1, EN 61000-6-2 and EN 50090-2-2

Ambient conditions

- Climatic withstand capability: EN 50090-2-2
- Ambient operating temperature: - 5 ... + 45 °C
- Storage temperature: - 25 ... + 70 °C
- Relative humidity (not condensing): 5 % up to 93 %

Markings

- KNX / EIB

CE mark

- in accordance with the EMC guideline (residential and functional buildings) and the low voltage guideline

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Location and function of the operating elements

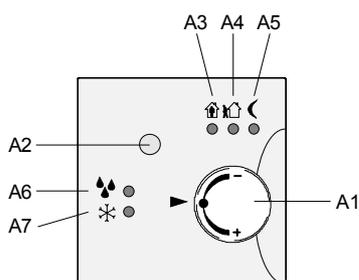


Diagram 2: Location of the operating and display elements

- A1 Rotary button for manual setpoint adjustment (control range dependent on the parameter setting)
- A2 Presence button for toggling between comfort and standby mode and vice versa
- A3 Comfort mode, display is green; lights up if the operating mode is active
- A4 Standby mode, display is green; lights up if the operating mode is active
- A5 Night reduction, display is green; lights up if the operating mode is active
- A6 Dew point alarm, display is yellow; lights up if the operating mode is active
- A7 Frost/heat protection mode, display is red; lights up if the operating mode is active

Mounting

General description

The temperature controller is placed and screwed in position on the flush-mounted bus coupler together with the relevant DELTA frame.

Notes regarding diagram 3:

- The flush-mounted bus coupler (B5) is connected in the flush-type box and fixed in position (see installation instructions for the flush-mounted bus coupler)
- Remove the rotary button (B1) from the device (B2)
- Place device with frame (B4) onto the flush-mounted bus coupler and fix in place with the screw (B3)
- Clip the rotary button (B1) on again

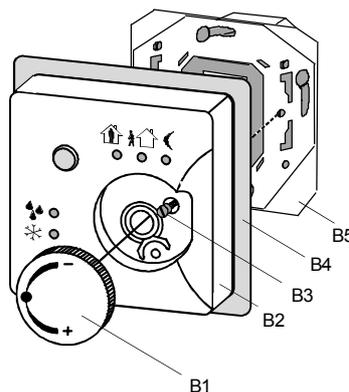


Diagram 3: Installing the temperature controller

- B1 Rotary button
- B2 Device
- B3 Fixing screw
- B4 Frame
- B5 Flush-mounted bus coupler

Dismantling

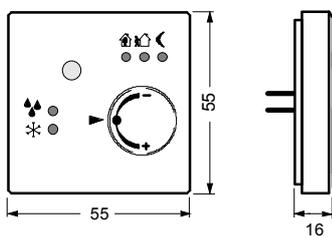
- Remove the rotary button (B1)
- Loosen the screw (B3)
- Remove the device together with the frame
- Remove the flush-mounted bus coupler (B5) in accordance with the instructions for dismantling

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Dimension Diagram

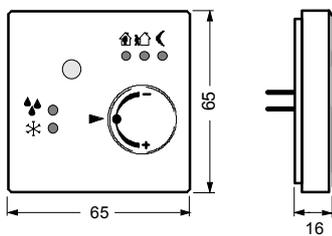
DELTA i-system

Dimensions in mm



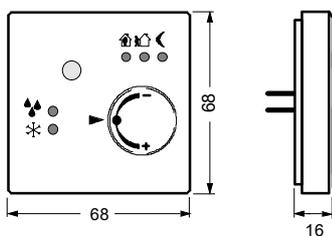
DELTA profil
DELTA ambiente

Dimensions in mm



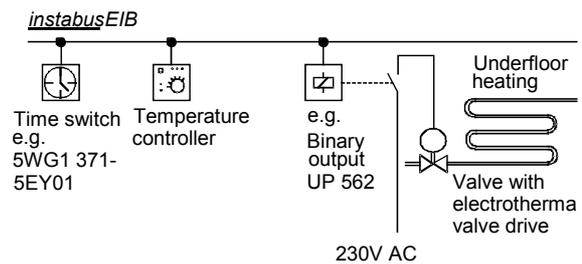
DELTA style

Dimensions in mm

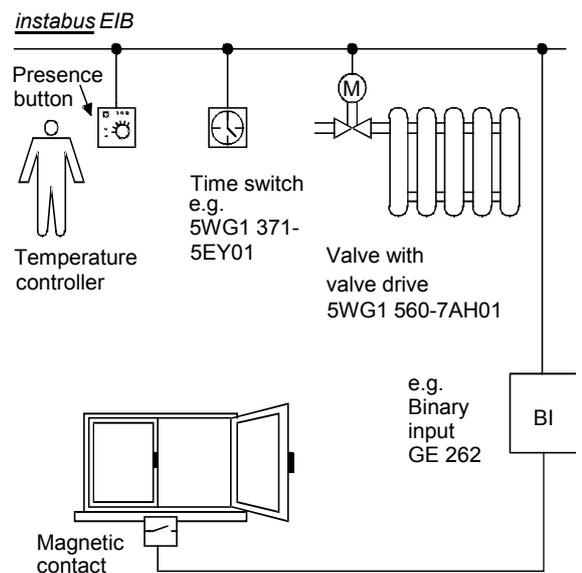


Application examples

Two- step controller



Continuous controller



General Notes

- The operating instructions must be handed over to the client.
- Any faulty device should be returned to the local Siemens office.
- If you have further questions concerning the product please contact our technical support:

+49 (180) 5050-222

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www.siemens.com/automation/support-request