

<b>Fan-Coil Unit Operator Panels Office</b>	UP 237E UP 252E UP 254E	5WG1 237-2EB_1 5WG1 252-2EB_1 5WG1 254-2EB_1
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Product	DELTA i-system	DELTA profil	DELTA style
Fan-Coil Unit Operator Panels Office	titanium white 5WG1 237-2EB11 carbon metallic 5WG1 237-2EB21 aluminium metallic 5WG1 237-2EB31	pearl grey 5WG1 252-2EB01 titanium white 5WG1 252-2EB11 anthracite 5WG1 252-2EB21 silver 5WG1 252-2EB71	titanium white / metallic silver 5WG1 254-2EB11 basalt black / metallic silver 5WG1 254-2EB21
DELTA frame	The appropriate frame must be ordered separately.	The appropriate cut-out frame must be ordered separately.	The appropriate frame must be ordered separately.
Bus Transceiver Module UP 117/11	The necessary Bus Transceiver Module UP 117/11 must be ordered separately (order nr. 5WG1 117-2AB11)		

## Product and function description

The Fan-Coil Unit (FCU) Operator Panels Office UP 237E\_1, UP 252E\_1 and UP 254E\_1 are specially designed for use in conjunction with the FCU Controller (FCC) REG 540. They are designed for use in rooms that are heated and / or cooled by a fan-coil unit and in which the room temperature is controlled according to comfort, energy-saving (i.e. standby and / or night mode) and protection mode.

A FCU Operator Panel Office can only function together with the necessary Bus Transceiver Module (BTM) UP 117/11 and the associated application program.

### Pushbutton

A parameter can be used to set whether the toggling between "comfort mode" (person present) and "energy-saving mode" (no person present) is effected via a presence detector connected to the bus or using the pushbutton on the operator panel. If a presence detector is installed, the pushbutton on the operator panel serves only to adjust the fan speed level by pressing it briefly several times until the LED of the desired fan speed level illuminates. If no presence detector is installed, then the pushbutton can be used to toggle between comfort and energy-saving mode (room in use / not in use) by pressing it briefly. Pressing for a longer time sets a desired fan speed level or switches off the fan when the user doesn't like its noise or the air-stream or switches it back to the automatic fan speed control mode. When the button is pressed for a longer time – duration of time is a parameter which can be set – the illuminated LED for displaying the current position moves step by step towards the extreme right or left position and back again therefrom, remaining in a new position

for 0.5s each time until the button is released. If there is no repeated pushbutton activity during an interval of 2 seconds, the pre-set fan speed level is transmitted to the FCU controller. If the button is activated again during this interval, the interval until the value is transmitted recommences after the button has been released.

Adjustment of the LED from the "Auto" position leads to the fan control being switched from automatic to manual operation and adjustment to the "Auto" position, from manual to automatic operation. If fan speed "0" is selected, the fan is switched off and any open valve is closed, i.e. the room is neither heated nor cooled. This is recognizable by the fact that the two-colored LED for displaying heating or cooling operation is not illuminated. If, for example, the room temperature falls beneath the frost alarm threshold whilst the fan is switched off, the FCU controller automatically opens the heating valve and switches the fan to automatic operation.

### Rotary knob

The rotary knob of the FCU Operator Panel Office serves to shift the room temperature setpoint to a higher or lower value. The shifting range depends on the parameter setting.

### LED displays

The clear-to-view and self-explanatory operator panel contains besides the push button and the rotary knob 5 yellow light-emitting diodes (LEDs) for displaying the automatic fan speed control (Auto) by the FCU controller and/or the current fan speed level adjusted by the room user, 3 green LEDs for displaying the current room operating mode and a two-coloured LED for displaying whether the heating valve is open (LED glows red) or the

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cooling valve (LED glows green), i.e. whether the room is being heated or cooled.

If, for example, a room user opens a window, this information is transmitted to the FCU controller. The controller e.g. immediately closes an open heating or cooling valve. The room is then neither heated nor cooled as long as the room temperature is not below the frost protection threshold or as long as the heat protection threshold is not exceeded. The room user can recognize this by the fact that the two-colored LED for displaying heating or cooling operation is not illuminated.

### Commissioning

Before commissioning a FCU Operator Panel Office by means of the ETS (engineering tool software), it must be attached to a bus transceiver module (BTM) UP 117/11. The BTM UP 117/11 serves to supply the operator panel with power and receives and transmits data via the *instabus*.

The openings for the pushbutton for toggling between normal mode / addressing mode and for the LED displaying normal mode / addressing mode are visible once the rotary knob (to adjust the setpoint) has been removed.

**Note:** The bus transceiver module UP 117/11 and the associated DELTA frame are not supplied and must be ordered separately.

### Application program

The application program "0701 FCU Operator Panel Office 802601", loadable from ETS2 V1.3, supports the following functions:

- Toggling between comfort and energy-saving mode by pressing the button briefly
- Selection of a desired fan speed level / automatic setting of the fan speed level by pressing the pushbutton for a longer time
- Display of the manually selected fan speed level / automatic fan speed level control by the FCU controller via 5 yellow LEDs
- Current room operating mode displayed via 3 green LEDs
- Two-coloured LED (red=heating, green=cooling) for display whether heating or cooling is active
- Setpoint-shift of room temperature via a rotary knob within the preset range.

### Installation instructions

- The device can be used for fixed installations in dry interior spaces and for integration into a flush socket.

## DANGER

- The device must only be installed and commissioned by authorized professional electricians.
- The device must not be used in conjunction with 230 V devices in the same socket.
- The device may be used in switch / plug combinations if VDE-authorized devices are used.
- The device must not be opened.
- When planning and installing electrical equipment the relevant guidelines, regulations and specifications of the respective country must be considered.

### Technical data

#### Voltage supply

- via the bus cable and bus transceiver module UP 117/11

#### Connections

- 10-pole plug-in connector for connection with the bus transceiver module UP 117/11

#### Mechanical data

- Casing: plastic
- Dimensions:
  - Fan-Coil Unit Operator Panel Office UP 237E for DELTA i-system: (L x W x D): 55 x 55 x 16 mm (excluding clamp)
  - Fan-Coil Unit Operator Panel Office UP 252E for DELTA profil: (L x W x D): 65 x 65 x 16 mm (excluding clamp)
  - Fan-Coil Unit Operator Panel Office UP 254E for DELTA style: (L x W x D): 68 x 68 x 16 mm (excluding clamp)
- Weight:
  - DELTA i-system and DELTA profil approx. 30 g
  - DELTA style approx. 40 g
- Fire load: approx. 730 kJ +/- 10%
- Mounting: The operator panel is attached to the BTM UP 117/11 and screwed to its mounting frame.

#### 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 24V
- Device complies with EN 50090-2-2

#### EMC requirements

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

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### Environmental conditions

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

### Markings

- KNX EIB

### CE mark

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

### Position and function of the display and operating elements

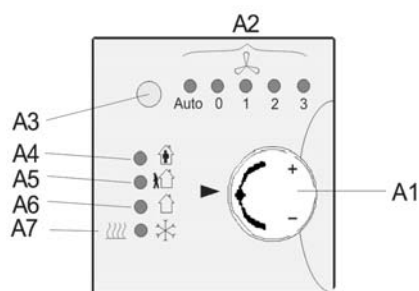


Figure 1: Position of the operating and display elements

- A1 Rotary knob for manual setpoint shifting (shifting range dependent on parameter setting)
- A2 5 LEDs for display of automatic operation / manually-adjusted fan speed level
- A3 Pushbutton for selection of room operating mode / fan speed level
- A4 LED green: illuminates during comfort mode
- A5 LED green: illuminates during energy-saving mode
- A6 LED green: illuminates during protection mode
- A7 Two-colored LED: glows red when heating valve is open, glows green when cooling valve is open

### Mounting, wiring and commissioning

#### General description

The FCU Operator Panel Office is attached with the associated DELTA frame to the BTM UP 117/11 and screwed to its mounting frame.

#### Mounting and start-up (see figure 2)

- Fix the BTM UP 117/11 (B5) on the flush socket and attach the bus cable (see mounting instructions for BTM UP 117/11)
- Remove rotary knob (B1) from the Operator Panel Office (B2)
- Attach the Operator Panel Office with DELTA frame (B4) to the BTM UP 117/11 and secure using screw (B3)
- Press start-up button (B7): start-up LED (B6) illuminates
- Load physical address and the configured application program by means of the ETS
- Replace rotary knob (B1).

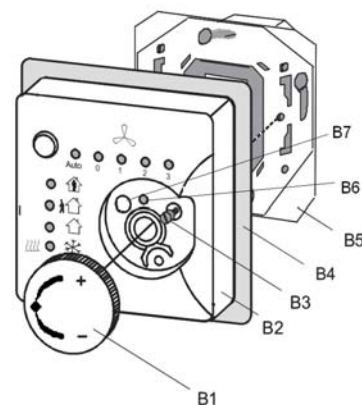


Figure 2: Mounting the FCU Operator Panel Office

- B1 Rotary knob for setpoint adjustment
- B2 Fan-Coil Unit Operator Panel Office
- B3 Screw for securing the Operator Panel Office to the mounting frame of the UP 117/11 (anti-theft protection)
- B4 DELTA frame
- B5 Bus Transceiver Module UP 117/11
- B6 LED for displaying normal mode (LED Off) or address mode (LED On); it is automatically extinguished once the physical address has been transferred
- B7 Button for toggling between normal mode / addressing mode for transferring the physical address.

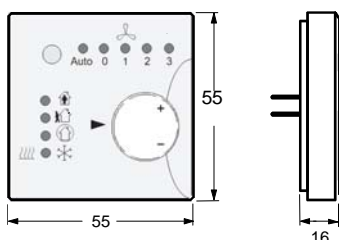
#### Disassembly (see figure 2)

- Remove rotary knob (B1).
- Loosen screw (B3)
- Remove Operator Panel Office together with DELTA frame
- Remove BTM UP 117/11 (B5) according to disassembly instructions.

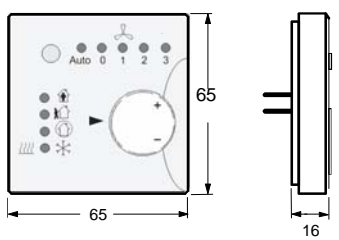
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**Dimension drawings**

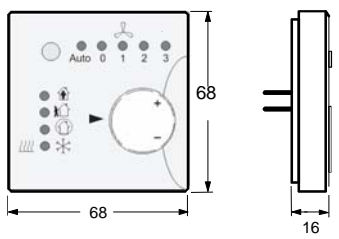
DELTA i-system FCU Operator Panel Office UP 237E  
(5WG1 237-2FB\_1)  
Dimensions in mm



DELTA profil FCU Operator Panel Office UP 252E  
(5WG1 252-2FB\_1)  
Dimensions in mm



DELTA style FCU Operator Panel Office UP 254E  
(5WG1 254-2FB\_1)  
Dimensions in mm



**General notes**

- 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 (0) 180 50 50-222

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✉ [www.siemens.com/automation/support-request](http://www.siemens.com/automation/support-request)

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