

Push button UP 233+IR, 1-fold 5WG1 233-2AB_1 **Push button UP 285+IR, 1-fold** 5WG1 285-2EB_1
Push button UP 234+IR, 2-fold 5WG1 234-2AB_1 **Push button UP 286+IR, 2-fold** 5WG1 286-2EB_1
Push button UP 235+IR, 4-fold 5WG1 235-2AB_1 **Push button UP 287+IR, 4-fold** 5WG1 287-2EB_1
- with infrared receiver

Issued: September 2002

Operating and mounting instructions

Product	DELTA profil	DELTA style		
Push button 1-fold + IR	pearl grey titanium white anthracite silver	5WG1 233-2AB01 5WG1 233-2AB11 5WG1 233-2AB21 5WG1 233-2AB71	titanium white basalt black titanium white metallic silver basalt black metallic silver	5WG1 285-2EB11 5WG1 285-2EB21 5WG1 285-2EB81 5WG1 285-2EB01
Push button 2-fold + IR	pearl grey titanium white anthracite silver	5WG1 234-2AB01 5WG1 234-2AB11 5WG1 234-2AB21 5WG1 234-2AB71	titanium white basalt black titanium white metallic silver basalt black metallic silver	5WG1 286-2EB11 5WG1 286-2EB21 5WG1 286-2EB81 5WG1 286-2EB01
Push button 4-fold + IR	pearl grey titanium white anthracite silver	5WG1 235-2AB01 5WG1 235-2AB11 5WG1 235-2AB21 5WG1 235-2AB71	titanium white basalt black titanium white metallic silver basalt black metallic silver	5WG1 287-2EB11 5WG1 287-2EB21 5WG1 287-2EB81 5WG1 287-2EB01
Frame	ordered separately from the DELTA ranges			
	cut-out frames	—		
Bus coupling unit	UP 114			

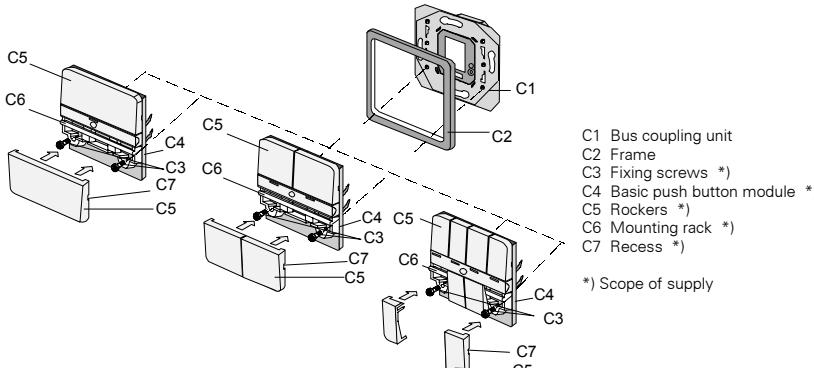


Diagram 1: Push button UP with infrared receiver

Product and functional description

The device push button 1; 2; 4-fold + IR is composed of 2 functional units: the push button and the infrared receiver.

- push button

There is an upper and a lower operating field on the push buttons. In the middle of the push button there is a note panel in which pictograms can be inserted. This panel also contains display elements (LEDs) for orientation lighting and also for status displays. Opposing rockers are combined to form a pair e.g. for defined switching, dimming, controlling shutters and blinds. It is also possible to carry out the switching functions ON and OFF e.g. via a push button "UP".

- infrared (IR) receiver

The IR receiving lens is incorporated in the note panel in the middle of the push button. Thus for carrying out the functions direct telegrams can also be transmitted onto the bus by IR signals, sent by a hand-held transmitter S 425 and/or a wall-mounted transmitter UP 420/421/422.

Using an application program, the push buttons UP + IR give commands via the flush-mounted bus coupler for example to actuators for defined switching on/off, for dimming lamps, raising/lowering shutters or for louvre adjustment or other parameterisable functional units.

The device push buttons + IR is placed together with the relevant DELTA frame on the flush-mounted bus coupler and can only function in combination with the bus coupler UP 114 and an appropriate application program, i.e. the push buttons (with bus coupler UP 114) consist of the devices (hardware) and the application programs (software).

The bus coupler UP 114 and the relevant frame are not supplied with the device but must be ordered separately.

Using the ETS program (EIB Tool Software), the application programs can be selected and the specific parameters and addresses can be assigned.

Application programs

see Siemens product database from version H onward
or: <http://www.siemens.de/installationstechnik>

Technical data

Power supply

Via the flush-mounted bus coupler

Operating elements

- 1, 2 or 4 pairs of rockers
The pairs of rockers are interlocked via software so that malfunctions are not triggered when they are operated simultaneously.
- Number of switching cycles: > 20,000

Display elements

- Per pair of push buttons
1 LED red for status display e.g. 4fold-push buttons = 4 LED red. The parameter for a red LED can be set to "flashing" if a proper incoming IR telegram is received / recognised. Each LED can be parameterised for status display or as an orientation light.

IR receiver

- Range of infrared beam: approx. 25 m if the following conditions are met:
 - with IR hand-held transmitter AP 425 (5WG1 425-7AB2)
 - directed at the optical main axis,
 - with 500 lux of diffuse daylight at the receiver
- Device without pictogram strips

Connections

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

Mechanical data

- Housing: plastic
- Dimensions:
 - DELTA profil (L x W x D): 65 x 65 x 10 mm
 - DELTA style (L x W x D): 68 x 68 x 14 mm
- Weight: approx. 55 g
- Fire load: approx. 950 kJ ± 10 %
- Mounting: placed on the flush-mounted bus coupler

Electrical safety

- Degree of pollution (according to IEC 60664-2): 2
- Type of protection (according to EN 60529): IP 20
- Protection class (according to IEC 60536): III
- Oversupply 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

Normal service life: 10 years

EMC requirements

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

Environmental conditions

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

Approval

EIB-certified

CE mark

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

Location and function of the operating and display elements

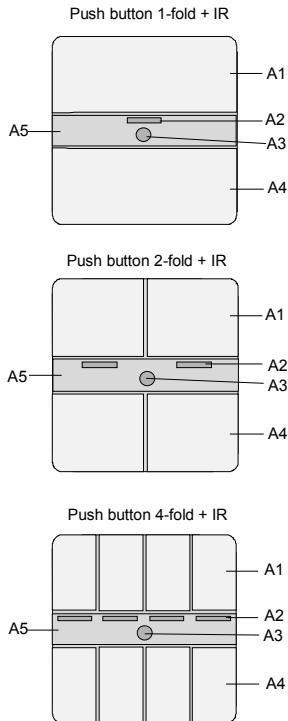


Diagram 2: Location of display and operating elements

- A1 Upper operating field
- A2 LEDs for display
- A3 IR receiver lens
- A4 Lower operating field
- A5 Cover for pictograms

Using fixing screws:

- If the fixing screws (C3) are used first of all the rockers (C5) have to be lifted out altogether. This can be achieved by inserting the screwdriver between the frames in the recess (C7) and applying leverage (diagram 4).
- Important: The push button module (C4, diagram 3) and the rockers (C5) together with the frame (C2) must be held down / pressed down.
- Screw down the fixing screws (C3).
- The rockers (C5) have to be orientated properly and clicked upon the mounting rack (C6).

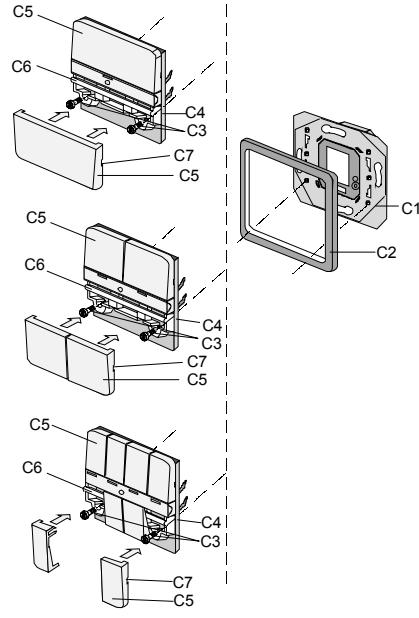


Diagram 3: mounting sequence

Drawing for mounting the fixing screws

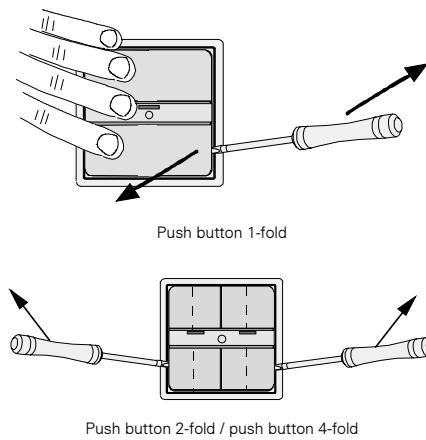


Diagram 4: Lifting out the rockers

Inserting pictograms

- Lift out the pictogram cover (A5) with the screwdriver by applying leverage, during this hold down the push button module (C4).

DELTA profil

- Insert the screwdriver into the slot (A2) until it reaches the stop and then wiggle it.

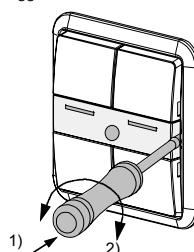


Diagram 5: Lifting out the pictogram cover

Mounting

General description

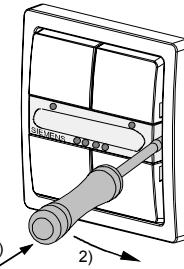
The push button + IR is placed together with the relevant frame on the flush-mounted bus coupler.

The flush-mounted bus coupler (C1) is connected to the flush-type box and fixed in position (refer to the installation instructions for the bus coupler).

Mounting sequence

- Place the basic push button module (C4, diagram 3) with the relevant frame (C2) on the flush-mounted bus coupler (C1) and press the one strongly upon the other.

DELTA style



- 1) Insert the screwdriver between the frame and the push button module
- 2) Swivel the screwdriver towards the wall.

Diagram 6: Lifting out the pictogram cover

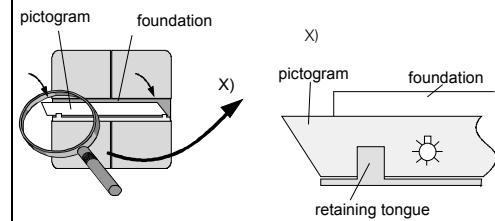


Diagram 7: inserting the pictograms

- Snap on the pictogram cover (A5) again.

Dismantling

Without fixing screws

- Remove the push button (C4, diagram 3) completely together with the frame from the flush-mounted bus coupler (C1):
 - a) with the mere hand
 - b) with a screwdriver beneath the frame / wall

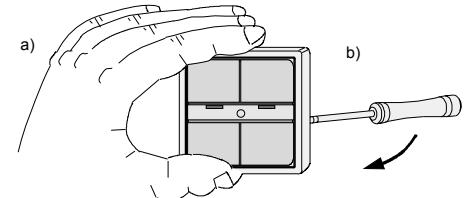


Diagram 8: Dismantling

With fixing screws

- Remove the rockers as described at „Mounting / Using fixing screws“.
- Screw out the fixing screws (C3)
- Snap on the rockers (C5) again
- Remove the whole push button module (C4) as described at „Without fixing screws“.

Note for functions / mounting of the push button + IR receiver

- The more directly the IR-radiation is received the more certain is the receiving.
- The receipt sensitivity is reduced considerably by objects (persons inclusively) in front of the flush-mounted push button + IR.

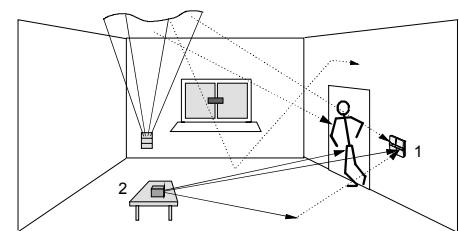


Diagram 9: Optimised IR-receiving

- 1 Flush-mounted push button + IR
2 Hand-held transmitter S 425
3 Wall-mounted transmitter UP 420/421/422

— direct radiation
- - - reflected radiation