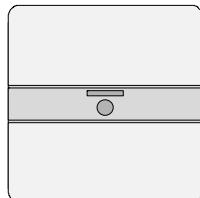


DELTA profil	Pushbutton with infrared receiver,	single	UP 233	5WG1 233-2AB_1
		double	UP 234	5WG1 234-2AB_1
		quadruple	UP 235	5WG1 235-2AB_1
DELTA style	Pushbutton with infrared receiver,	single	UP 285E	5WG1 285-2EB_1
		double	UP 286E	5WG1 286-2EB_1
		quadruple	UP 287E	5WG1 287-2EB_1

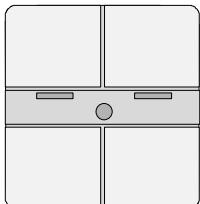
As at: March 2008

## Operating and mounting instructions

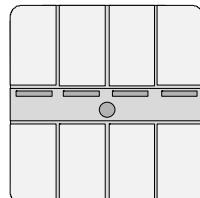
## Products



Pushbutton single with IR receiver

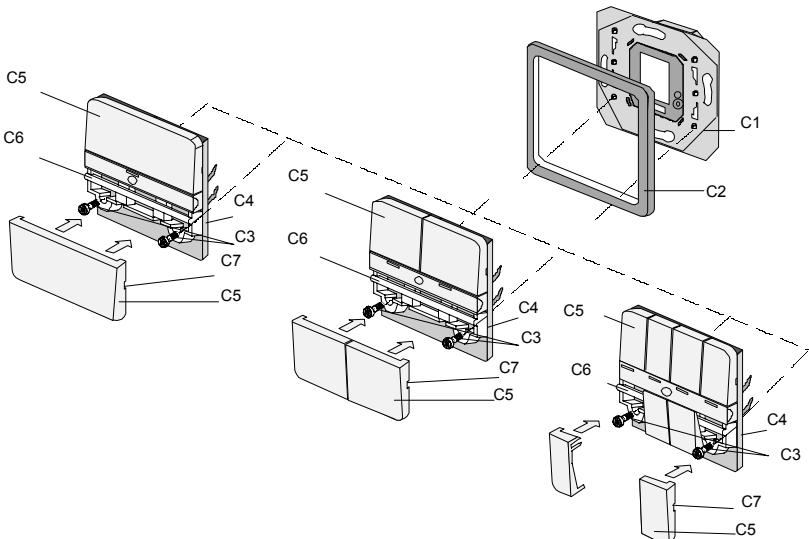


Pushbutton double with IR receiver



Pushbutton quadruple with IR receiver

Frame	DELTA profil:	cut-out frames ordered separately from the DELTA ranges
	DELTA style:	frames ordered separately from the DELTA ranges
Bus coupling unit		UP 114 bus coupling unit ordered separately



C1 Bus coupling unit  
 C2 Frame  
 C3 Fixing screws \*)  
 C4 Basic pushbutton module \*)  
 C5 Rockers \*)  
 C6 Mounting rack \*)  
 C7 Recess \*)

\*) Scope of supply

Diagram 1: Mounting the pushbutton with IR receiver

## Product and functional description

The device pushbutton single, double, quadruple + IR is composed of 2 functional units: the pushbutton and the infrared receiver.

## pushbutton

There is an upper and a lower operating field on the pushbuttons. In the middle of the pushbutton 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 pushbutton "UP".

## infrared (IR) receiver

The IR receiving lens is incorporated in the note panel in the middle of the pushbutton. 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 pushbuttons 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 pushbuttons + 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 pushbuttons (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 the application programs can be selected and the specific parameters and addresses can be assigned.

## Additional Informations

<http://www.siemens.com/gamma>

## Technical data

## Power supply

- via the flush-mounted bus coupler

## Operating elements

- 1, 2 or 4 pairs of rockers, idle in the middle position

## Display elements

- Per pair of pushbuttons 1 LED red for status display e.g. quadruple pushbutton = 4 LEDs red.  
The parameter for a red LED can be set to "flashing" if a proper incoming IR telegram is received / recognised.

## 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

- 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

## Electrical safety

- Type of protection (according to EN 60529): IP 20

## Environmental conditions

- Ambient operating temperature: - 5 ... + 45 °C
- Storage temperature: - 25 ... + 70 °C
- Relative humidity (not condensing): 5 % to 93 %

## Markings

- KNX / EIB

## Location and function of the operating and display elements

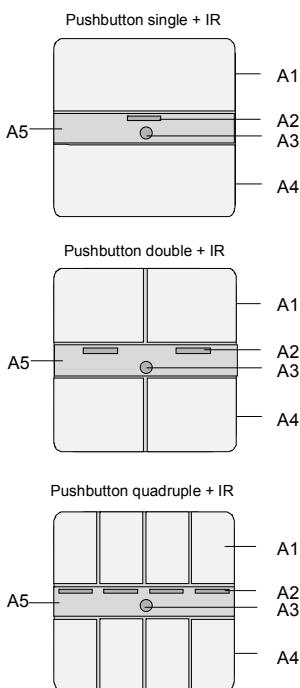


Diagram 2: Location of display and operating elements

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

## Mounting

- The device can be used for permanent interior installations, in dry rooms and for insertion in flush-type boxes.
- The range decreases when the receiver lens is exposed to incandescent light. Reference point: max. 500 lux permitted. In practice: incandescent lamps should not be located less than 2 m away.
- Direct sunlight should be avoided. This can lead to the infrared receiver being completely immobilised.
- Range with wall-mounted transmitter: a value cannot be given as this is dependent on the actual reflections of infrared light at the installation site.
- Range with IR hand-held transmitter S 425 approx. 25 m. See data of the IR receiver
- The use of pictogram strips reduces the range, depending on the number of strips.

## **DANGER**

- The device may only be installed and commissioned by an authorised 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.

## General description

The pushbutton + 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 pushbutton module (C4, diagram 3) with the relevant frame (C2) on the flush-mounted bus coupler (C1) and press the one strongly upon the other.

## 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 pushbutton 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).

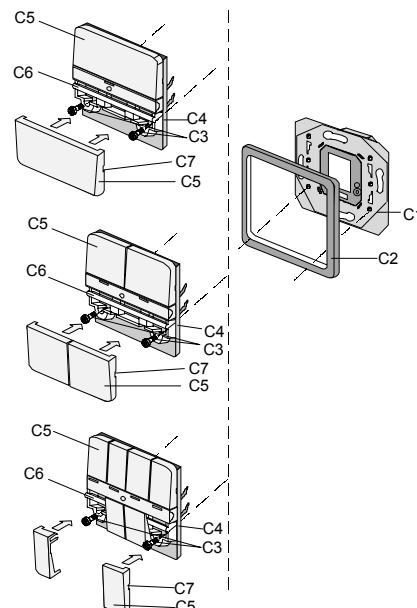
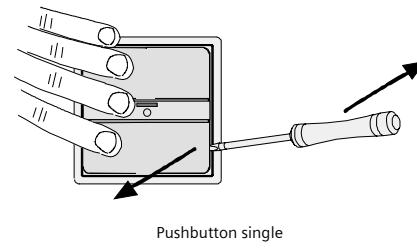
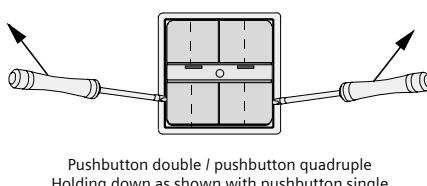


Diagram 3: mounting sequence

## Drawing for mounting the fixing screws (C3)



Pushbutton single



Pushbutton double / pushbutton quadruple  
Holding down as shown with pushbutton single

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 pushbutton module (C4).

### DELTA profil

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

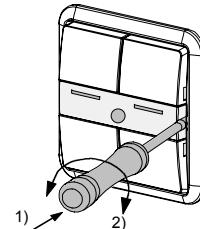
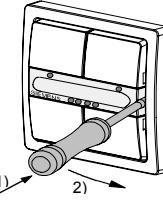


Diagram 6: Lifting out the pictogram cover

- Lay the pictograms onto the foundation.
- Snap on the pictogram cover (A5) again.

## DELTA style



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

Diagram 6: Lifting out the pictogram cover

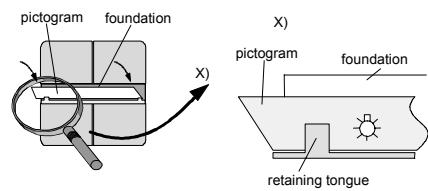


Diagram 7: inserting the pictograms

- Snap on the pictogram cover (A5) again.

## Dismantling

### Without fixing screws

- Remove the pushbutton (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

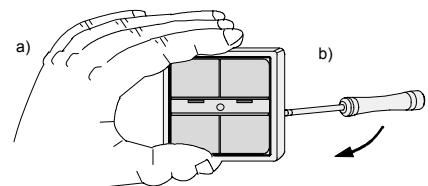


Diagram 8: Dismantling

### 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 pushbutton module (C4) as described at „Without fixing screws“.

## Note for functions / mounting of the pushbutton + 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 pushbutton + IR.

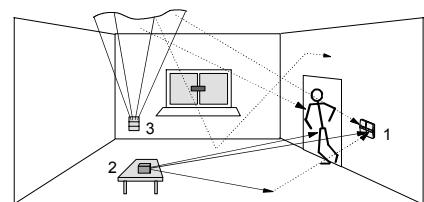


Diagram 9: Optimised IR-receiving

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

— direct radiation  
- - - reflected radiation

## 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  
■ +49 (180) 5050-223  
■ [www.siemens.com/automation/support-request](http://www.siemens.com/automation/support-request)