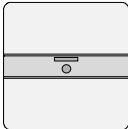
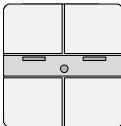
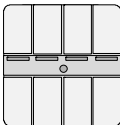


|              |                              |           |         |                |
|--------------|------------------------------|-----------|---------|----------------|
| DELTA profil | Pushbutton with IR receiver, | single    | UP 233  | 5WG1 233-2AB_1 |
|              |                       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



| Product                                      |   | DELTA profil   |                | DELTA style                      |                |
|--|---|----------------|----------------|----------------------------------|----------------|
| Pushbutton single,<br>with IR-receiver       |  | pearl grey     | 5WG1 233-2AB01 | basalt black / metallic silver   | 5WG1 285-2EB01 |
|  |   | titanium white | 5WG1 233-2AB11 | titanium white                   | 5WG1 285-2EB11 |
|  |   | anthracite     | 5WG1 233-2AB21 | basalt black                     | 5WG1 285-2EB21 |
|  |   | silver         | 5WG1 233-2AB71 | platinum metallic                | 5WG1 285-2EB41 |
|  |   |                |                | titanium white / metallic silver | 5WG1 285-2EB81 |
| Pushbutton double,<br>with IR-receiver       |  | pearl grey     | 5WG1 234-2AB01 | basalt black / metallic silver   | 5WG1 286-2EB01 |
|  |   | titanium white | 5WG1 234-2AB11 | titanium white                   | 5WG1 286-2EB11 |
|  |   | anthracite     | 5WG1 234-2AB21 | basalt black                     | 5WG1 286-2EB21 |
|  |   | silver         | 5WG1 234-2AB71 | platinum metallic                | 5WG1 286-2EB41 |
|  |   |                |                | titanium white / metallic silver | 5WG1 286-2EB81 |
| Pushbutton<br>quadruple,<br>with IR-receiver |  | pearl grey     | 5WG1 235-2AB01 | basalt black / metallic silver   | 5WG1 287-2EB01 |
|  |   | titanium white | 5WG1 235-2AB11 | titanium white                   | 5WG1 287-2EB11 |
|  |   | anthracite     | 5WG1 235-2AB21 | basalt black                     | 5WG1 287-2EB21 |
|  |   | silver         | 5WG1 235-2AB71 | platinum metallic                | 5WG1 287-2EB41 |
|  |   |                |                | titanium white / metallic silver | 5WG1 287-2EB81 |
| Frame  | ordered separately from the DELTA ranges  |                |                |                                  |                |
|  | cut-out frames  |                | —              |                                  |                |
| Bus coupling unit                            | UP 114  |                |                |                                  |                |

|              |                              |           |         |                |
|--------------|------------------------------|-----------|---------|----------------|
| DELTA profil | Pushbutton with IR 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 IR receiver, | single    | UP 285E | 5WG1 285-2EB_1 |
|              |                              | double    | UP 286E | 5WG1 286-2EB_1 |
|              |                              | quadruple | UP 287E | 5WG1 287-2EB_1 |

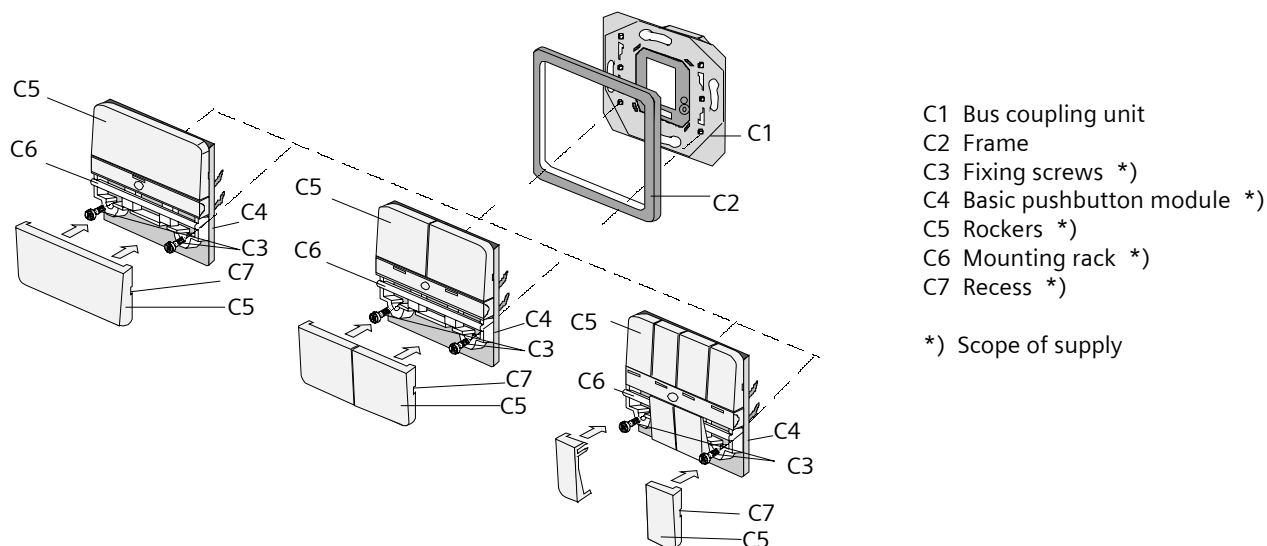


Diagram 1: Pushbutton UP with infrared receiver

## Product and Applications Description

The device pushbutton single, double, quadruple with IR receiver are 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.

|              |                              |           |         |                |
|--------------|------------------------------|-----------|---------|----------------|
| DELTA profil | Pushbutton with IR 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 IR receiver, | single    | UP 285E | 5WG1 285-2EB_1 |
|              |                              | double    | UP 286E | 5WG1 286-2EB_1 |
|              |                              | quadruple | UP 287E | 5WG1 287-2EB_1 |
|              |                              |           |         |                |

## Application programs

### 20 S18 Push button UP + IR 900B02

- 14 IR channels and up to 4 rockers for
  - switching On / OFF / toggle / bell function
  - dimming
  - 8 bit value
  - blinds control
  - scene 1 bit (recall/store)
- per rocker 1 LED for status indication or orientation light
- status feedback of received IR telegrams

## Installation instructions

- 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.

## Technical data

### Power supply

- via the flush-mounted bus coupler

### Operating elements

- 1, 2 or 4 pairs of rockers, idle in the middle position
- Number of switching cycles: > 20,000

### Display elements

- per pair of pushbuttons 1 LED red for status display e.g. pushbutton quadruple = 4 LEDs.  
The parameter for one 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
- 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

|              |                              |           |         |                |
|--------------|------------------------------|-----------|---------|----------------|
| DELTA profil | Pushbutton with IR 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 IR receiver, | single    | UP 285E | 5WG1 285-2EB_1 |
|              |                              | double    | UP 286E | 5WG1 286-2EB_1 |
|              |                              | quadruple | UP 287E | 5WG1 287-2EB_1 |

**Reliability**

- Rate of failure: 27 fit at 40° C

**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 %

**Markings**

- KNX / EIB

**CE mark**

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

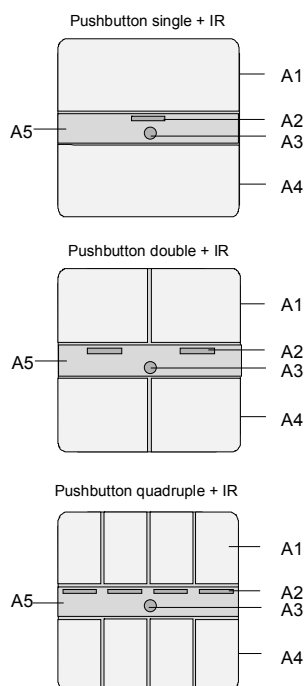
**Location and function of the operating and display elements**

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

**Mounting**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).

|              |                              |           |         |                |
|--------------|------------------------------|-----------|---------|----------------|
| DELTA profil | Pushbutton with IR 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 IR receiver, | single    | UP 285E | 5WG1 285-2EB_1 |
|              |                              | double    | UP 286E | 5WG1 286-2EB_1 |
|              |                              | quadruple | UP 287E | 5WG1 287-2EB_1 |
|              |                              |           |         |                |

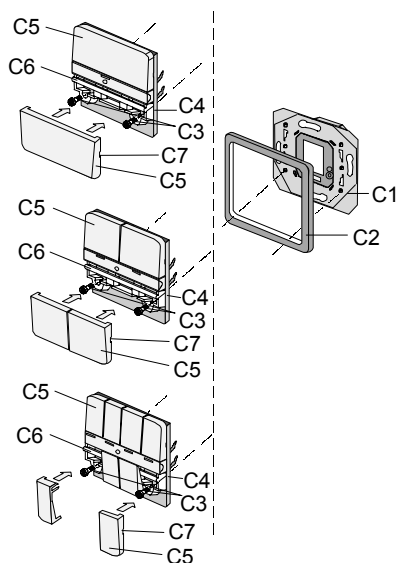
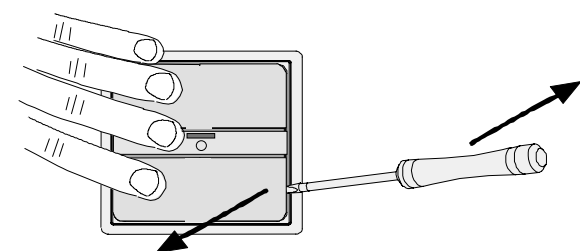


Diagram 3: mounting sequence

**Drawing for mounting the fixing screws**

Pushbutton single

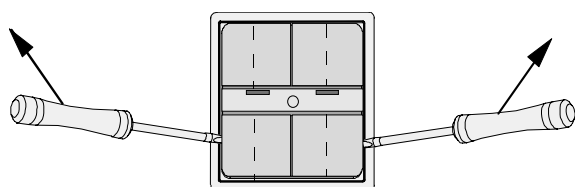
Pushbutton double / pushbutton quadruple  
Holding down as shown with pushbutton single

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.

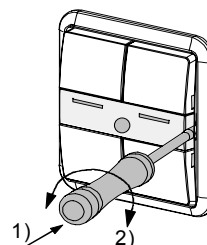
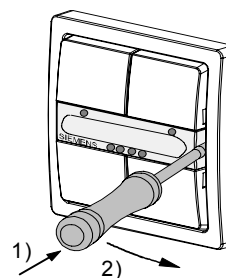


Diagram 5: Lifting out the pictogram cover

- 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

|              |                              |           |         |                |
|--------------|------------------------------|-----------|---------|----------------|
| DELTA profil | Pushbutton with IR 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 IR receiver, | single    | UP 285E | 5WG1 285-2EB_1 |
|              |                              | double    | UP 286E | 5WG1 286-2EB_1 |
|              |                              | quadruple | UP 287E | 5WG1 287-2EB_1 |

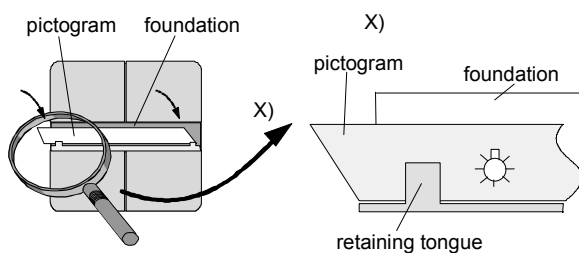


Diagram 7: inserting the pictograms

- 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

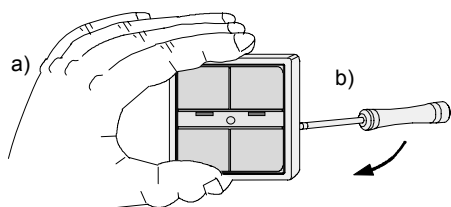


Diagram 8: Dismantling

### 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.

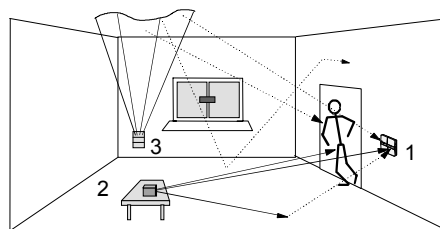


Diagram 9: Optimised IR-receiving

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

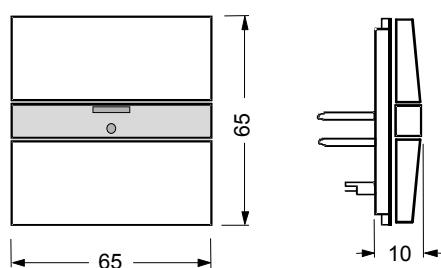
— direct radiation  
 - - - - reflected radiation

|              |                              |           |         |                |
|--------------|------------------------------|-----------|---------|----------------|
| DELTA profil | Pushbutton with IR 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 IR receiver, | single    | UP 285E | 5WG1 285-2EB_1 |
|              |                              | double    | UP 286E | 5WG1 286-2EB_1 |
|              |                              | quadruple | UP 287E | 5WG1 287-2EB_1 |

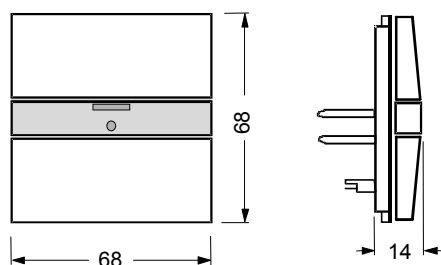
## Dimension Diagram

Dimensions in mm

### DELTA profil



### DELTA style



## 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)