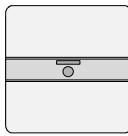
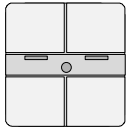
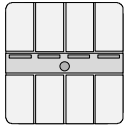


Push button UP 233 + IR, 1 - fold	5WG1 233-2AB_1
Push button UP 285 + IR, 1 - fold	5WG1 285-2EB_1
Push button UP 234 + IR, 2 - fold	5WG1 234-2AB_1
Push button UP 286 + IR, 2 - fold	5WG1 286-2EB_1
Push button UP 235 + IR, 4 - fold	5WG1 235-2AB_1
Push button UP 287 + IR, 4 - fold	5WG1 287-2EB_1
- with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



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

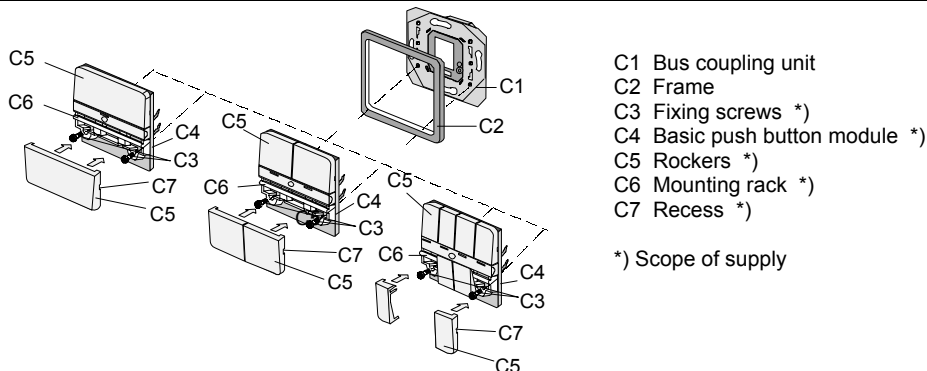


Diagram 1: Push button UP with infrared receiver

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	

## Product and Applications 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

### 20 S18 Push button UP + IR 900B01

- Per rocker: dimming, shutter or scene control
- Per rocker contact: on/off/toggle or send 8 bit value
- LED for status display or orientation light
- Status feedback of received IR telegrams

### Notes for installation

- 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.



## WARNING

- 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.
- Any faulty devices should be returned to the local Siemens office.

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	

## 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
- 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

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

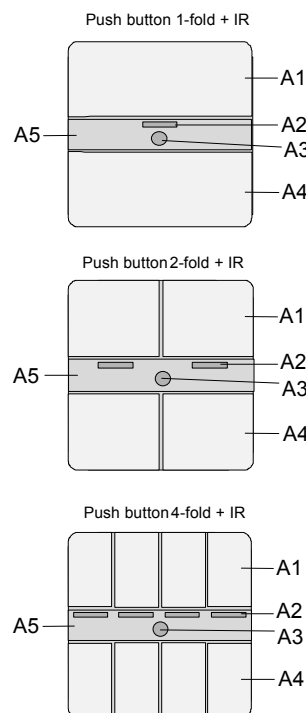


Diagram 2: Location of display and operating elements

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

5WG1 233-2AB\_1  
 5WG1 285-2EB\_1  
 5WG1 234-2AB\_1  
 5WG1 286-2EB\_1  
 5WG1 235-2AB\_1  
 5WG1 287-2EB\_1

## 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.

#### 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).

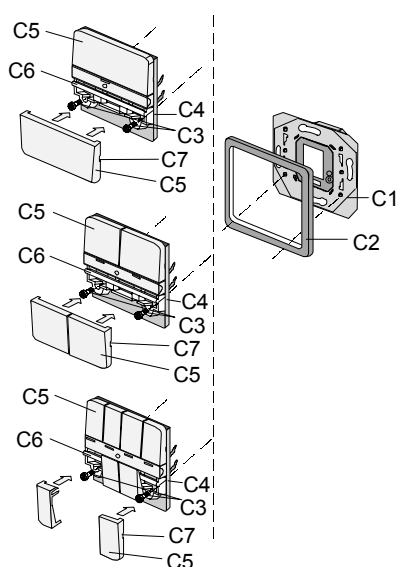
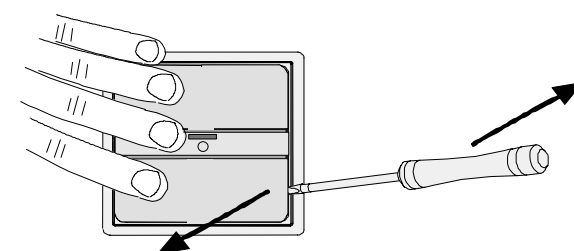
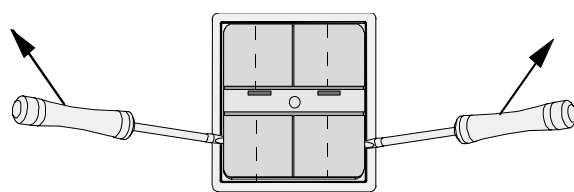


Diagram 3: mounting sequence

### Drawing for mounting the fixing screws



Push button 1-fold



Push button 2-fold / push button 4-fold  
Holding down as shown with push button 1-fold

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.

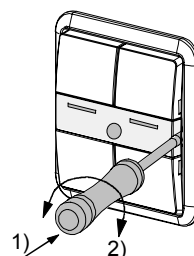
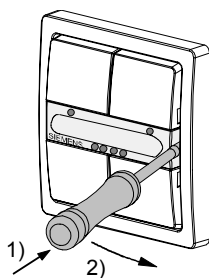


Diagram 5: Lifting out the pictogram cover

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

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	

## 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

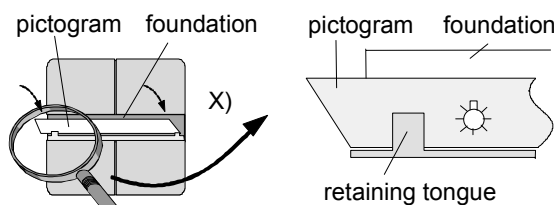


Diagram 7: inserting the pictograms

- 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

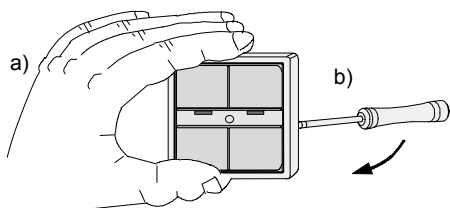


Diagram 8: Dismantling

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.

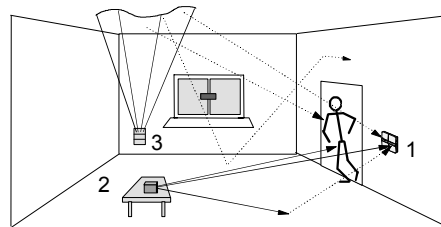


Diagram 9: Optimised IR-receiving

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

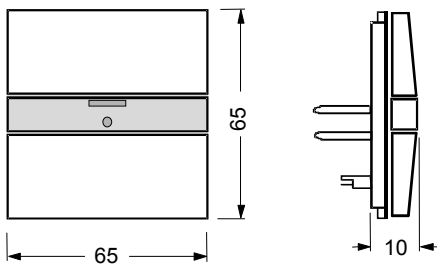
———— direct radiation  
 - - - - reflected radiation

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	

## Dimension Diagram

Dimensions in mm

DELTA profil



DELTA style

