

Push Button UP 230

4-fold

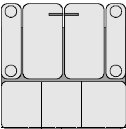
Movement Detector Included

5WG1 230-2AB..

5WG1 230-2EB..

Issued: January 2005

Operating and mounting instructions

Product	DELTA profile	DELTA style
Push button 4-fold Movement detector included 	pearl grey 5WG1 230-2AB02	titanium white 5WG1 230-2EB11
	titanium white 5WG1 230-2AB12	basalt black 5WG1 230-2EB21
	anthracite 5WG1 230-2AB22	
	silver 5WG1 230-2AB72	
Frame	ordered separately from the DELTA ranges	
	cut-out frames	—
Tier frame	—	titanium white 5TG1 328 basalt black 5TG1 368
Bus coupling unit	UP 110, UP 114	

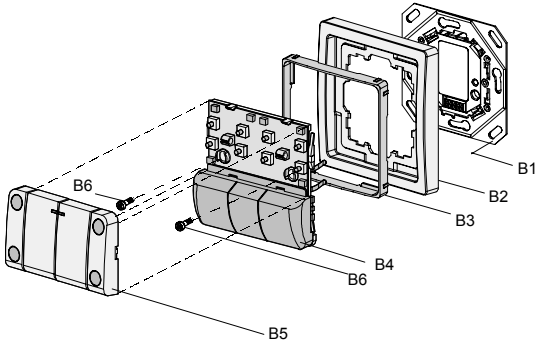


Diagram 1: Mounting the push button UP 230

- B1 Bus coupling unit
- B2 Frame
- B3 Tier frame for DELTA style
- B4 Push button UP 230 4-fold movement detector included \*)
- B5 Rockers \*)
- B6 Fixing screws \*)
- \*) Scope of supply

Product and functional description

The push button UP 230 is composed of 3 functional units: the push button 4-fold, the motion detector beneath and the light intensity sensor.

- Push button

Four rocker switches are provided with two switching contacts each (one top and one bottom contact). After operating the rocker returns to its neutral position automatically. The two central rocker switches (main rocker switches) are approx. twice as wide as the two outer rocker switches.

Red LEDs are provided beneath each of the windows inserted into the two outer rockers and the two central rockers.
- Motion detector

Beneath the rocker switches there is a motion detector situated with two motion sensors and a light intensity sensor. Beneath the movement detector's optics there is a LED that is illuminated on detecting movement (display mode can be set in the parameter list).
- Light intensity sensor

Beneath the receiving lenses of the motion detector a light intensity measuring unit is incorporated so that e.g. lamps are switched on only if the light intensity falls below the threshold set in the parameter list.

Using an application program, the push buttons UP 230 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 push button UP 230 is slid onto the bus coupling unit UP together with its frame. It requires a bus coupling unit and an appropriate application program to work properly, i.e. the push button (in combination with a bus coupling unit UP) consists of the devices (hardware) and the application program (software).

The bus coupling unit UP and frame are not included and therefore have to be ordered separately. When using DELTA style a tier frame must be employed.

With the ETS (E/B Tool Software) the application program is selected, the appropriate parameters and addresses are assigned.

NOTE

The motion detector is not fitted for being used in connection with alarm systems.

Application programs

[www.siemens.com/gamma](http://www.siemens.com/gamma)

Technical data

- Power supply

via bus coupling unit UP
- Motion detector

• max. detection angle horizontally:  
approx. 180 degrees,  
can be set in the parameter list of the application program: 90 degrees to left, 90 degrees to right, 180 degrees

• max. detection angle vertically:  
approx. 10 degrees up, approx. 40 degrees down

• max. detection ranges:  
major movement (e.g. human being): approx. 6 m  
minor movement (e.g. hand): approx. 3 m

• mounting height for maximum performance:  
1,10...1,30 m

- Connections

10-pin connector (PEI):  
for connection to a bus coupling unit UP

- Physical specifications

• dimensions (L x W x D):  
65 x 65 x 17 mm (without spring)  
65 x 65 x 30 mm (incl. spring)

• weight: approx. 40 g

- Electrical safety

• protection (according to EN 60529): IP 20

- Reliability

rate of failure: 321 fit at 40 °C

- Electromagnetic compatibility

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

- Environmental specifications

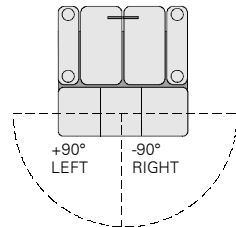
• ambient temperature operating: - 5 ... + 45 °C

• ambient temperature non-op.: - 25 ... + 70 °C

• relative humidity (non-condensing): 5 % to 93 %

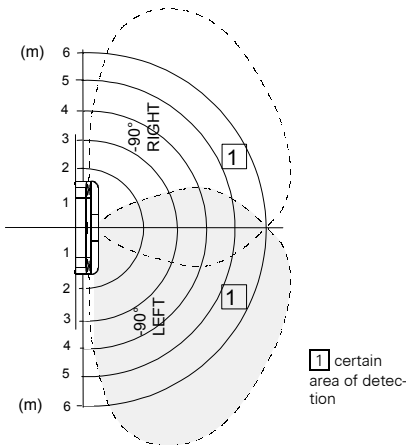
Monitoring area of the motion detector

Three sections of the 180° monitoring area can be set via parameter adjustment:

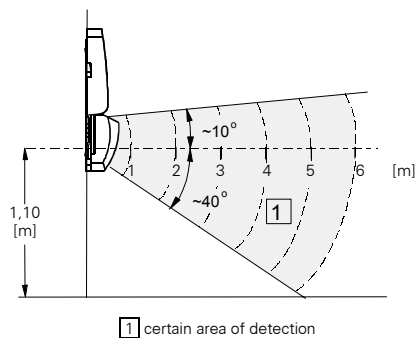


- 1) + 90° = LEFT
- 2) - 90° = RIGHT
- 3) ± 90° = 180°  
LEFT + RIGHT

Monitoring area (top view)



## Monitoring area (side view)



## Monitoring area of the light intensity sensor

The light intensity sensor evaluates the light received from any angle of illumination: featured by overall receiving.

## Location of the display and operator elements

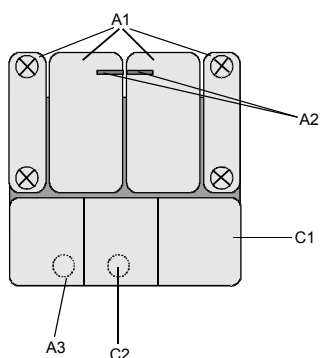


Diagram 2: Display and operator elements

- A1 Rockers
- A2 LEDs of the wide rockers
- A3 Light intensity sensor (beneath the receiving lenses)
- C1 Receiving lenses of the motion detector
- C2 LED of the motion detector (beneath the receiving lenses)

## Installation instructions

- The device may be used for permanent interior installations in dry locations within box mounts (in combination with a bus coupling unit UP).
- Any change of the thermal image in the detection area in dependency of its intensity could release the movement detector! E.g. bright lamps close by, intensive air circulation (ventilation slots), and so on.
- The device must be mounted free of vibration.
- Do not mount the device exposed to direct sun light.

## WARNING

- The device must be mounted and commissioned by an authorised electrician.
- The device must not be installed in box mounts together with 230 V devices.
- The device may be mounted to switch and socket combination box mounts (in combination with a bus coupling unit UP) if VDE-certified devices are used exclusively.
- The prevailing safety rules must be heeded.
- A device suspected faulty should be returned to the local Siemens office.

## Mounting

### Note:

- The installation site and type of installation should be carefully selected according to the area that is to be monitored while considering any possible interference. The mounting wall should not be exposed to vibration or motion, as any movement of the motion detector has the same effect as thermal movement in the detection area. In order to prevent unwanted switching operations, the multi switch should if possible be installed so that it is not exposed to direct sunlight. Air turbulence caused by heaters, vents from air-conditioning units, dropping leaves of flowers etc. can also trigger switching operations in the monitoring area of the motion detector. Since infrared radiation is largely absorbed or reflected by glass, plastic, brickwork, metal and cardboard, it is not picked up by the motion detector.
- The optimum range is achieved if the sensor is mounted sideways to the direction of movement. There could otherwise be a reduction in the range.

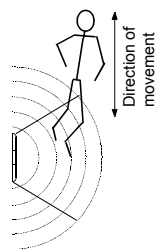


Diagram 3: Highly effective movement detection

- Sensors should not be aligned towards the sun. The high level of thermal energy can destroy the sensors.
- In the event of voltage recovery and after each programming process, it is necessary to wait for an immunity period of approx. 80 seconds before the motion detector is ready for operation again. No telegrams are sent by the motion detector during this time.

### General description

The push button UP 230 is slid onto the bus coupling unit UP together with its frame.

- The flush-mounted bus coupling unit is connected and fixed in position in the flush-type box (see installation instructions for the flush-mounted bus coupling unit).

### Mounting sequence

- Place the push button module (B4/B5) with the relevant frame (B2/B3) on the flush-mounted bus coupler (C1) and press the one strongly upon the other (diagram 4).

Using fixing screws:

- If the fixing screws (B6) are used first of all the rockers (B5) have to be lifted out altogether. This can be achieved by inserting the screwdriver between the frames in the recess (D1) and applying leverage (diagram 5).

Important: The push button module (B4) and the rockers (B5) must be held down / pressed down.

- Screw down the fixing screws (B6).
- The rockers (B5) have to be orientated properly and clicked upon the mounting rack (B7).

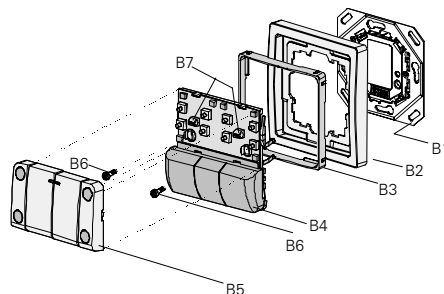


Diagram 4: Mounting sequence

## Drawing representing the installation

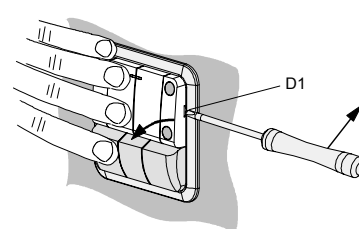


Diagram 5: Lifting out the rockers

### Inserting / changing pictograms

Pictograms (which have to be ordered separately) can be inserted in the two small outer rockers (B5) in order to achieve a clearer representation of the functions.

Mounting sequence referring to the pictograms:

- Apply leverage with a screwdriver to remove the rockers (B5) from the module (B4). (See installation instructions „Using fixing screws“).
- Lift out the ROUND pictogram inserts (B11) by applying pressure with a hard object (screwdriver) at their rear sides. (see diagram 6)

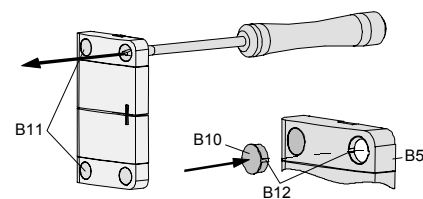


Diagram 6: Inserting / changing pictograms

- The desired pictograms (B10) can then be pushed in at the front side of the rocker (B5). Pay attention to the fin guideway (B12).
- The rockers (B5) have to be orientated properly and clicked upon the mounting rack (B7).

## Dismantling

### Without fixing screws

- Remove the push button UP 230 (B4) completely together with the frame (B2) from the flush-mounted bus coupler (B1):
  - a) with the mere hand
  - b) with a screwdriver beneath the frame / wall

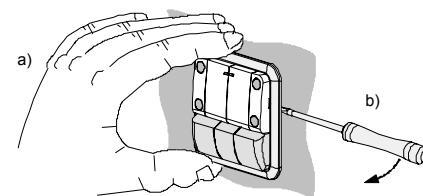


Diagram 7: Dismantling

### With fixing screws

- Insert a screwdriver into the recess (D1, diagram 5) between the frame (B2) and the rockers (B5) and remove the rockers by applying leverage.
- Screw out the fixing screws (B6).
- The rockers (B5) have to be orientated properly and clicked upon the mounting rack (B7).
- Remove the whole multi switch (B4) as described at „Without fixing screws“.