AP 421/3 IR wall switch, double, titanium white	5WG1 421-3AB13

Product and Applications Description

The AP 421/3 IR wall switch in the design DELTA style is available with the color titanium white and with a black cover over the IR diodes.

For wireless control of actuators the AP 421/3 IR wall switch transmits IR signals that are received by the S 450 IR receiver decoder or a wall switch with IR receiver-decoder, which transposes them into corresponding bus telegrams. Thus the IR wall switch can send e.g. commands to actuators for defined on/off switching or dimming of lamps, or for moving Venetian blinds up/down or moving their slats.
The IR wall switch is powered by two batteries of type Alkaline (LR03/AAA; 1,5V).
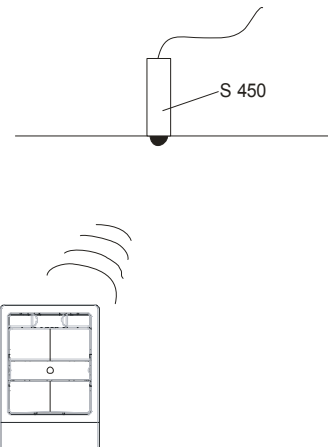
Note
The batteries (Alkaline LR03/AAA, 1,5V) are not included and have to be sourced separately.

Application programs

Example of Operation

Installation notes

⚠ **WARNING**

- The device must be mounted and commissioned by an authorised electrician.
- The prevailing safety rules must be heeded.
- For planning and construction of electric installations, the relevant guidelines, regulations and standards of the respective country are to be considered.

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Technical Specifications

Power supply
two batteries Alkaline LR03/AAA, 1,5V

IR transmission unit
- light wave length: 890 nm
- transmission freq.: 455 kHz
- transmission range:
  (the receiver must be within uninterrupted optical reach)
  - black LED cover: approx. 8 m unfocused
- adjustable channels: 2 of 64

Configuration elements
for channel selection:
slide switches (built in the device), access is possible after removing the bottom part

Operating elements
- 2 pairs of 2 facing rockers each

Display elements
- 1 red LED:
  LED for transmission and battery observance flashing on rocker depression

Physical specifications
- Housing: plastic
- dimensions (W x H x D): 82 x 115 x 21mm
- weight: approx. 80 g (without battery)
- Fire load: approx. 3040 kJ $\pm$ 10 %

Electrical safety
- Degree of pollution (according to IEC 60664-1): 2
- Type of protection (according to EN 60529): IP 20

Reliability
Failure rate: 170 fit at 40°C

EMC requirements
Complies with EN 50090-2-2, EN 61000-6-2

Environmental specifications
- climatic conditions: EN 50090-2-2
- ambient temperature operating: - 5 ... + 45 °C
- ambient temperature non-op.: - 25 ... + 70 ° C
- relative humidity (non-condensing): 5 % to 93 %

Markings: CE

CE mark
- in accordance with the EMC directive (residential, commercial, and industrial buildings)

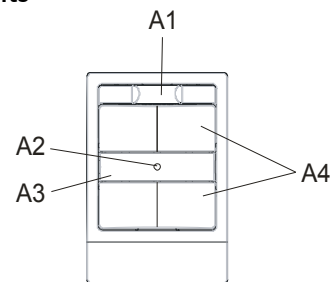## Location and Function of the Display and Operating Elements

Figure 1: Display and operating elements

A1   IR transmission diodes
A2   LED for transmission and battery observance flashing on rocker depression;
no display when depressing rocker: replace battery
A3   label field
A4   rocker switch
top depression (1)   = ON/UP/BRIGHTER
bottom depression (0)   = OFF/DOWN/DARKER

Battery change

The LED flashes for five seconds after a rocker has been depressed if a battery change is required.
- Dismount the wall switch
- Remove the empty batteries and replace these with new batteries (Alkaline LR03/AAA, 1,5V)
- **NOTE:**
  Obey the applicable regulations when disposing the empty batteries.

- Mount the wall switch
- NOTE:
  If within two seconds after inserting the batteries the button below the SIEMENS logo is pressed for five seconds, the wall switch is set to send IR signals immediately when a button is pressed. In conjunction with the new S 450 IR receiver decoder swicthing and dimming commands can be issued faster by the remote. This setting is active until the next battery change.

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Mounting and wiring

Mounting notes
- Take care that the line of sight from the transmission diodes to the receiver is sufficiently free. Especially, if persons are standing in front of the device in order to use it.
- The base plate of the IR-transmitter can be mounted with screws or optionally with the included double faced adhesive film.
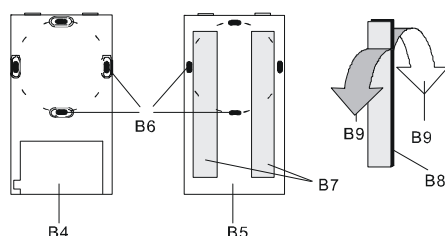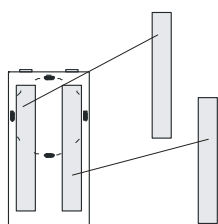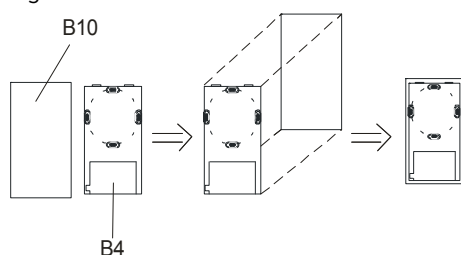

Figure 2a

Figure 2b

Figure 2c

B1   IR wall switch, side view
B2   latching screw
B3   interlocking clamps
B4   base plate, front view
B5   base plate, rear view
B6   horizontal/vertical long slots
B7   recesses for adhesive tape
B8   double faced adhesive tape
B9   protective films
B10   Non-transparent foil (for mounting on transparent material)
B11   Label

B12   Slide switches for selection of the IR transmission channel
B13   battery compartment AAA

Mounting of the base plate (Figure 2)
with screws
- Pierce the horizontal or vertical holes (B6) of the base panel (B4) with a screw-driver or another suitable tool.
- Attach the base panel (B4) with screws respectively with dowels and screws.

with double faced adhesive tape
- Remove one of the protection films (B9) from the double-faced adhesive tape (B8) and stick the tape in the recesses (B7) on the device's back side.
- Strip off the remaining protection films (B9) and push the base panel onto a smooth, dustless and greaseless foundation or the non-transparent foil.
- When installing on transparent material (e.g. glass) stick the transparent foil (B10) on the transparent material.

Mounting the IR wall switch (Figure 3)
- Insert the batteries into the wall switch (B1)
- Select the desired IR transmission channel with the sliding switches (B12) on the rear side of the wall switch (B1).
- Hang the device onto the base panel with its upper side and click it into place at the retaining clamps with its bottom side to attach the device on the base panel.
- Secure the wall switch with the included latching screw (B2) against unintentional dismounting.
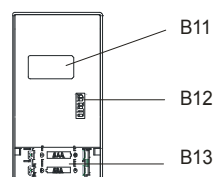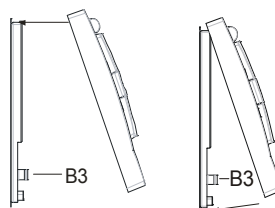

Figure 3a

Figure 3b   Figure 3c

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Dismounting the IR wall switch (Figure 4)
- Unscrew the latching screw (B2) on the bottom side of the wall switch (B1).
- Insert the screw driver below the screw hole for the latching screw, detach the wall switch from the base plate by swiveling the screw driver up and lift the wall switch from the base plate.
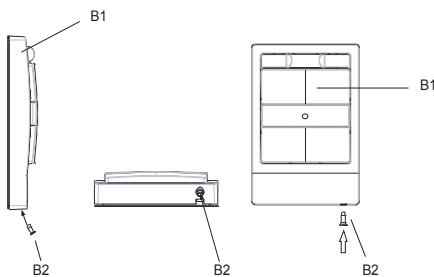

Figure 4

Select IR transmission channel

The AP 420/3 IR wall switch uses one channel for transmitting the IR signals. A maximum of 64 channels are available.

The transmission channel is selected with the sliding switches 1 to 6 (figure 5) that are on the rear side of the device (B12).
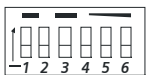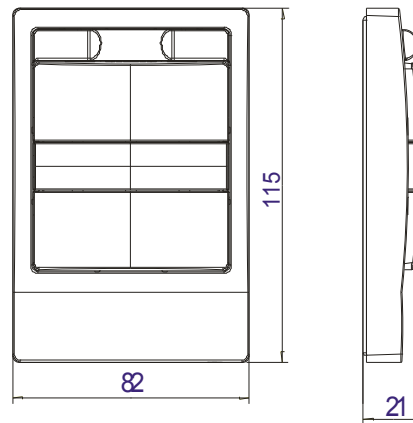

Figure 5

Channel assignment dependent on the sliding switch positions

channel	slide switch					
	1	2	3	4	5	6
0	0	0	0	0	0	0
1	0	0	0	0	0	1
2	0	0	0	0	1	0
3	0	0	0	0	1	1
4	0	0	0	1	0	0
5	0	0	0	1	0	1
6	0	0	0	1	1	0
7	0	0	0	1	1	1
8	0	0	1	0	0	0
:						
61	1	1	1	1	0	1
62	1	1	1	1	1	0
63	1	1	1	1	1	1

Dimension drawing

Dimensions in mm

General Notes

- The operating instructions must be handed over to the client.
- Any faulty devices should be returned to the local Siemens office.
- If you have further questions concerning the product please contact our technical support:
☏   +49 (0) 180 50 50-222
(0,14 €/min. from the German landline network, deviating mobile communications prices are possible)
🖨   +49 (0) 180 50 50-223
E-Mail: support.automation@siemens.com
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