SIEMENS

Technical Product Information

September 2007

Door/window contact wave AP 260

titanium white 5WG3 260-3AB11 brown 5WG3 260-3AB81

Product- and Application Description



The door/window contact wave AP 260 (Diagram A) is a surface-mounted device with an integrated radio transmitter which detects and reports the opening and closing of doors or windows. In addition to the reed contact integrated in the radio-controlled sensor (A3) which is operated by the magnet (A4) attached to the door or window, it is possible to connect one or several external door/window contacts in series to the internal reed contact.

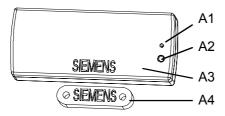


Diagram A

The door/window contact is supplied with power via a lithium battery (1/2 AA 3.6V) which is supplied with the device. This battery is rated so that it is only necessary to replace it approx. every 5 years, even with up to 50 changes in the switching state per day. If the battery has to be replaced, this is indicated by the LED (A1) flashing every 10 s. The battery must then be replaced within a month.

The commissioning of the door/window contact is carried out, without any additional tool, via a push button located at the front of the device (A2).

The door/window contact wave AP 260 has two different operation modes:

Normal function

- Reporting the opening or closing of doors or windows
- Reporting the battery status every 24 hours Special function

- Establishing connections with other radio- controlled components
- Deleting connections with other radio-controlled components

Notice

 This device is not intended for use in professional alarm systems. The manufacturer or supplier therefore does not accept liability for any loss of property incurred during the use of this product.

Operation

After mounting and commissioning the door/window contact wave, the new status will be sent each times the door or window is opened and closed. Furthermore, for immediate sending on a change of status, the current status of the contact is sent cyclically by radio with a repetition frequency of approx. 15 minutes. After commissioning or a reset of the device (e.g. after a battery change), the door/window contact wave begins after about 15 minutes with the cyclical sending of the current contact status. The radio telegram with the battery status will be sent approx. 1 minute after commissioning and be repeated approx. every 24 hours. To increase transfer security each status will be sent twice with an interval of one second between transmissions.

The transmission of a radio telegram will be indicated by the LED (A1) coming on briefly.

Technical Specifications

Frequency band

868 MHz (transmission is not susceptible to interference; frequency band reserved for system and security applications)

Range of radio control

approx. 100 m (in free field applications)

Power supply

Lithium battery, 1/2 AA 3.6V. battery operation time approx. 5 years Replacement batteries: Sonnenschein SL-750/S, SAFT LS 14250, Tekcell SB-AA02, Tadiran SL-750/S, Siemens-MLFB: 6ES5 980-0MA11.

Connections

4 plug-in terminals for wire ranges between 0.14 mm^2 and 0.5 mm^2 , single-core or finely-stranded; for setting whether an external contact is to be monitored as well as for the connection of an external contact. Maximum cable length 10 m.

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Mechanical specifications

- Housing: plastic
- Dimensions (L x W x H): sensor: 87x36x27 mm magnet: 40x10x10 mm
- Weight of sensor: approx. 65g (with battery)
- Fire load: approx. 800kJ
- · Mounting: fixed with adhesive or screws

Electrical safety

- Pollution degree (according to IEC 60664-1): 2
- Protection (according to EN 60529): IP 20
- Overvoltage category (according to IEC 60664-1): III
- Device complies with EN 60669-2-1 and IEC 60664-1

Electromagnetic compatibility

Complies with EN 301489, EN 300220

Environmental specifications

- Climatic conditions: EN 50090-2-2
- Ambient operating temperature: 5 ... + 45°C
- Storage temperature: 25 ... + 70°C
- Relative humidity (non-condensing): 5% to 93%

Certification

complies with KNX - standard

- radio frequency rf
- easy mode push button EP



CE norm

in accordance with the EMC guideline, low-voltage regulations and the R&TTE regulations

SIEMENS AG hereby declares that the door/window contact wave AP 260 is compliant with the basic requirements and the other relevant instructions in EC Directive 1999/5.

The CE declaration can be inspected at:

SIEMENS AG Siemensstraße 10 D-93055 Regensburg

Installation instructions

Caution:

- The device may be used for interior installations and in dry rooms only.
- The device may not be opened for warranty reasons.

- Occasionally the transmission range may be influenced by structural conditions (e.g. reinforced concrete) or electric / electronic sources of interference.
- A minimum distance of 1 m must be maintained between the door-/ window contact wave and the relevant receivers.
- Although the radio transmission is carried out in the safe 868 MHz range, disruptions to the radio transmission cannot be excluded.
- This product is not suitable for security applications in professional alarm systems.

Mounting

It is advisable to attach the radio-controlled sensor to the fixed door-/ window frame and to attach the magnet directly to the edge of the movable door or window. If the sensor and magnet are fixed to the top of the window, even the tilting of the window is reliably detected and reported (Diagram B1).

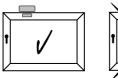




Diagram B1

Diagram B2

The mounting plate (C2) of the door/window contact (C1) as well as the magnet (C3) can be fixed using the supplied adhesive strips or with screws if necessary. When using the adhesive strips the ground must be clean and non-greasy. It should be ensured that the SIEMENS markings on the mounting plate and magnet lie on top of each other as much as possible and that the distance (gap) between the mounting plate and the edge of the door or window is at least 3 mm but does not exceed 10 mm.

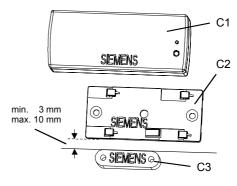


Diagram C

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Before clipping the radio-controlled sensor onto the mounting plate, the insulating strip (D4) that is inserted in the battery compartment (D1) on the back of the sensor must be removed and if necessary an external window contact should be connected.

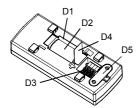


Diagram D

First the radio-controlled sensor (E1), as shown in Diagram E, must be placed onto the mounting plate (E2). Then you should slide it in the direction of the arrow until the clamps (E3) click into place.

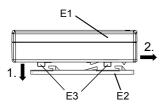
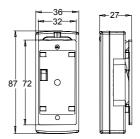


Diagram E

Dimension Diagram

Dimensions in mm



Connection of an External Window Contact

A conventional door/window contact (with a reed contact which must be closed when the door or window is closed) can be connected to the door/window contact wave via plug-in terminals (D3) on the rear of the radio-controlled sensor. This enables for example the cost-effective monitoring of both doors in the case of a double door.

The external reed contact is switched electrically in series to the reed contact in the radio-controlled sensor. In the case of a double door, this means for example that the opening of only one door is already detected and reported, but it is not possible to determine which door has been opened. The door is only detected and reported as closed once both doors have been closed.

Note: The cable for connecting an external window contact must not exceed 10 m.

Monitor internal contact only

Diagram F1 indicates the plug-in terminals of the door/window contact in the supplied state. It has been set via the wire jumper between terminals 3 and 4 that only the internal contact is monitored.

Monitor external contact only

Diagram F2 indicates the terminal assignment when only an external contact should be monitored. The internal contact has been deactivated via the wire jumper between terminals 1 and 2.

Monitor internal and external contact

Diagram F3 indicates the terminal assignment if the internal and an external contact should be monitored together. The wire jumper is omitted in this case.

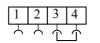






Diagram F1

Diagram F2

Diagram F3

Strain relief

The cable can be fixed to the external contact via the supplied clamping plate (D5). The maximum permitted diameter of the connecting cable is 5 mm.

Location and Function of the Display and Operating Elements

Diagram A

- A1 LED for displaying the sending of a radio telegram, the link with other radio-controlled components and a low battery
- A2 Push button for linking the door/window contact with other radio-controlled components

Diagram D

- D1 Battery compartment
- D2 Battery
- D3 Plug-in terminals for setting whether an external contact should be monitored as well as for the connection of an external contact

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Commissioning

Note

When commissioning the door/window contact wave, it must be linked via "learning telegrams" to the KNX radiocontrolled devices which should process its radio telegrams.

Only those radio-controlled devices which are able to process the special door/window status message can be connected to a door/window contact. These are, for example, the push button wave shutter UP 211 and the coupler wave/instabus UP 140.

Connection via radio

To link (teach in) a door/window contact wave (G1) to a push button wave shutter (G2), the push button wave shutter must first be switched to the special function (refer to the operating and mounting instructions of the device).

The push button (A2) on the door/window contact must then be pressed for approx. 1 s. The LED (A1) flashes for approx. 3 s if the learning telegrams have been sent.

You can now open and close the door or window to check whether the door/window contact sends a radio message each time door or window is opened and closed (LED A1 illuminates briefly) and whether the radio messages from the associated device are being correctly received and processed.



Diagram G

Deleting a link

Should an indoctrinated device cease to respond to a given door/window contact, then the radio link is to be deleted, i.e. it must be learned in again. The procedure for deleting a link is exactly as for connecting.

Replacing the Battery

The LED (A1) indicates that the battery needs to be replaced by flashing briefly every 10 s. In order to be able to replace the battery, the radio-controlled sensor must be removed from its mounting plate.

To do so, the lug (H3) must be pressed down with a tool (e.g. a small screwdriver (H4)) in the gap between the radio-controlled sensor (H1) and the mounting plate (H2). You should then slide the radio-controlled sensor (H1) to the left over the lug and out of its clamps (H5). The battery compartment (D1) is located on the underside of the radio-controlled sensor. Its housing does not need to be opened to replace the battery. The correct polarity should be observed when replacing the battery.



The used battery must be disposed of in accordance with the applicable regulations.

Once the battery has been replaced, the radio-controlled sensor must be placed onto the mounting plate again, as shown in Diagram E.

Finally, it should be tested by opening and closing the door or window whether the door/window contact wave sends radio telegrams each time the door or window is opened and closed (LED A1 lights up briefly) and whether the radio telegrams have been received and processed correctly from the associated device. The LED (A1) should also have stopped flashing at cyclic intervals to indicate that the battery is low.

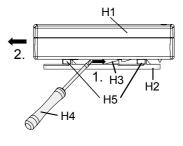


Diagram H

General Notes

- The operating instructions should be handed over to the customer.
- Any faulty devices should be returned to the local SIEMENS office.
- Should you have any further queries about this product, please contact our Technical Support Department:

+49 (0) 180 50 50-222 +49 (0) 180 50 50-223

ausupport@siemens.com

www.siemens.de/automation/support-request