

12.08.2010

# Radio magnetic contact

Order-No.: 9430 0100

Operation- and Assembly Instructions

## 1 Safety instructions

Electrical equipment may only be installed and fitted by electrically skilled persons.

Failure to observe the instructions may cause damage to the device and result in fire and other hazards.

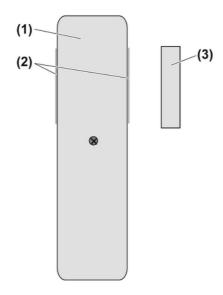
Risk of explosion! Do not throw batteries into fire.

Risk of explosion! Do not recharge batteries.

The device is not suitable for use as a burglar alarm or other alarm.

These instructions are an integral part of the product, and must remain with the end customer.

## 2 Device components



picture 1

- (1) Transmitter
- (2) Sensor buttons
- (3) Magnetic housing with magnet

## 3 Function

#### **System information**

By statute, the reception characteristics and the antenna cannot be changed.

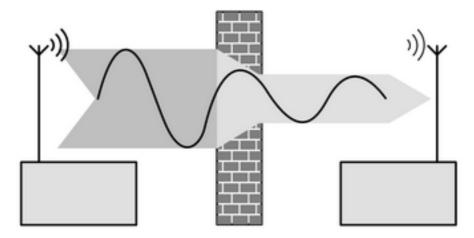
The device may be operated in all EU and EFTA countries.

The declaration of conformity can be viewed on our website.

The range of a radio system from the transmitter to the receiver depends on various circumstances.

The range of the system can be optimised by selecting the optimal installation location, taking into account the structural circumstances.





picture 2: Reduced range due to structural obstacles

#### **Example of penetration of various materials:**

Material	Penetration
Wood, Plaster, Plasterboard	approx. 90%
Brick, Chipboard	approx. 70%
Reinforced concrete	approx. 30%
Metal, Metal grid	approx. 10%
Rain, Snow	approx. 1-40%

#### Intended use

- Opening monitoring of windows and doors
- Operation in combination with suitable switching and dimming actuators
- Battery-powered device
- Installation on window or door

#### Use as opening monitoring according to firing ordinance (German Firing Regulations § 4)

Opening monitoring of windows in conjunction with room air extraction devices such as extractor hoods and room air-dependent heaters.

If the windows are closed and the extractor hood is switched on, then underpressure may cause smoke gas to enter living space.

The extractor hood may only be operated when a window is opened.

When the windows are closed, the power supply of the extractor hood must be interrupted.

i No other transmitter type may be taught to radio actuators, used to interrupt the power supply.

## **Functional description**

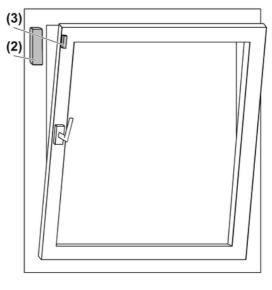
The transmitter (1) detects the opening or closing of a window. As soon as a window is opened, it transmits cyclical radio telegrams, which are evaluated by switching and dimming actuators. The actuators only switch on when they receive radio telegrams. If the window is shut, no more radio telegrams are transmitted and the actuators switch off their load after one minute at the latest.



# 4 Information for electrically skilled persons

# 4.1 Fitting and electrical connection

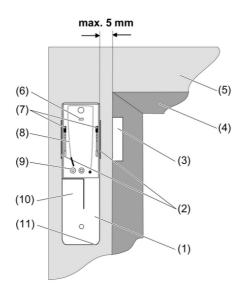
## Installing the transmitter and magnet



picture 3

i Select the installation location so that the sensor areas (2) and magnet (3) are safely separated when the window is tilted.

When the window is closed, the distance between the magnet and the sensor area may be max. 5 mm.



picture 4

- (1) Transmitter
- (2) Sensor buttons
- (3) Magnetic housing with magnet
- (4) Window leaf
- (5) Window frame



- (6) LED
- (7) Jumper
- (8) Antenna
- (9) Board retaining screw
- (10) Battery compartment
- (11) Antenna bushing

There are two sensor areas (2) at the side on the housing base of the transmitter (1).

- Before installing the transmitter, carry out the teaching procedures (see Teaching the transmitter in the radio receiver).
- Unscrew the transmitter housing and lift off the lid.
- Slacken the retaining screw (9) from the board and remove the board. Install the housing base of the transmitter by screwing it onto the window frame (5). Screw the board on again.
- Connect the battery with the right polarity and insert it in the battery compartment (10).
- To activate the transmitter, remove the jumper (7) on whose side the magnet (3) is installed.

The transmitter is now activate and, when the window is open, will transmit a switching telegram every 20 seconds. This is shown by the LED (6) flashing once.

- i If both jumpers (7) are connected, the transmitter does not transmit. Exception: the transmitter is in Programming mode.
- Attach and screw on the lid, observing the lid position. Ensure that no cables are squashed.
- Screw the magnet housing to the window leaf (4) so that the magnet is parallel to the sensor surface (2). The enclosed washed can be used to compensate for height differences to the sensor.
- Insert the magnet.
- Push on the magnet housing lid.
- It is not possible to remove the magnet housing lid without damaging it.

## 4.2 Commissioning

#### Teaching transmitter in radio receiver

In order for a receiver to understand a radio telegram from the transmitter, the receiver has to "learn" this radio telegram. The transmitter can be taught in any number of radio receivers. The teaching procedure only results in an assignment in the radio receiver.

When teaching a radio transmitter, the range of the receiver is reduced to about 5 m. The distance between the radio receiver and the transmitter being taught should therefore be between 0.5 m and 5 m.

- Unscrew the transmitter housing and lift off the lid.
- Disconnect the battery from the connection terminal for approx. 2 minutes. Wait for the condenser to discharge.
- Connect the battery with the correct polarity.
  - The transmitter transmits teach telegrams for approx. 1 minute. The LED (6) flashes during this time.
- Switch radio receiver to programming mode (see instructions for radio receiver).
  On receiving the teaching telegram, the radio receiver teaches the transmitter and acknowledges the teaching procedure (see instructions for the receiver).
- Exit programming mode of the receiver (see instructions for the receiver).
  The transmitter has now been taught to the radio receiver.
- Attach and screw on the lid. Ensure that no cables are squashed.



#### Changing the battery



#### **WARNING!**

Risk of chemical burns.

Batteries can burst and leak.

Replace batteries only with an identical or equivalent type.

- i No radio receiver may be in Programming mode when the battery is connected. Otherwise undesirable teaching will take place.
- Unscrew the transmitter housing and lift off the lid.
- Connect the battery with the right polarity and insert it in the battery compartment (10).
  The transmitter transmits teach telegrams for approx. 1 minute. The LED (6) flashes during this time.
- Attach and screw on the lid. Ensure that no cables are squashed.

# 5 Appendix



Remove empty batteries immediately and dispose of in an environmentally friendly manner. Do not throw batteries into household waste. Consult your local authorities about environmentally friendly disposal. According to statutory provisions, the end consumer is obligated to return used batteries.

## 5.1 Technical data

Rated voltage DC 9 V Battery type Alkaline 6LR 61 Ambient temperature -5 ... +45 °C -25 ... +45 °C Storage/transport temperature Relative humidity max. 75 % (No moisture condensation) **Dimensions** Transmitter (L×W×H) 132×36×35 mm Magnet (L×H×W) 44×12.5×17.5 mm carrier frequency 433.42 MHz (ASK) Transmitting range in free field typical 100 m Transmitting power < 10 mW

## 5.2 Troubleshooting

## Receiver does not respond, or only sometimes.

Cause 1: battery in the transmitter is empty.

Change battery (see section changing the battery).

Cause 2: Radio range exceeded. Structural obstacles reduce the range.

Open the antenna bushing (11) near the battery compartment with a suitable tool and run out the antenna (8).

Laying the antenna stretched out increases the range.

Using a radio repeater.

# 5.3 Warranty

We reserve the right to make technical and formal changes to the product in the interest of technical progress.

Our products are under guarantee within the scope of the statutory provisions.

If you have a warranty claim, please contact the point of sale or ship the device postage free with a description of the fault to the appropriate regional representative.



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