



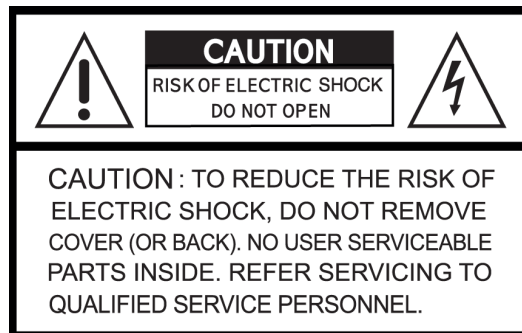
Introduction

Thank you for purchasing the KATHREIN Digital Systems GmbH window/door contact FMK 100. Please take the time to read the following safety and installation information carefully and attentively before using the window/door contact. It is imperative to comply with these instructions in order to ensure the safe operation of the device. If you have any further questions, please contact your local retailer or KATHREIN Digital Systems GmbH directly. Your window/door contact FMK 100 was developed and built with state-of-the-art technology and complies with European and German standards.

Please keep this manual safe to be able to answer possible questions in the future. The manual is an integral part of the product even in case it is resold to a third party.

Disclaimer

All technical details and descriptions in this manual were compiled with the greatest care. However, KATHREIN Digital Systems GmbH cannot entirely exclude mistakes in this manual. Therefore, we do not assume any legal responsibility or liability resulting from wrong information in this manual. Descriptions, technical illustrations and technical data are subject to change without notice according to technical progress. In addition, KATHREIN Digital Systems GmbH reserves the right to change the product and the manual without prior notice. We do not assume any guarantee with regard to the content of this document. We appreciate any comments on mistakes or inaccuracies which may help us to improve this product and this manual.



This symbol is intended to attract the user's attention to the potential risk of dangerous unprotected voltage inside the housing. This may lead to electric shock.



This symbol is intended to attract the user's attention to user and maintenance instructions in the manual and documents enclosed with the product.

WARNING:

TO MINIMISE THE RISK OF ELECTRIC SHOCK, YOU MUST NOT EXPOSE THIS PRODUCT TO WET AND MOIST CONDITIONS AT ANY TIME.



All KATHREIN Digital Systems GmbH products are lead-free and meet the requirements stated under the European Directive on the Restriction of Hazardous Substances (RoHS). This guarantees that the entire production process and the product itself are free of lead and of all listed hazardous substances.



This product was tested and complies with the regularities for a class of digital devices stated under FCC part 15. These limits were specified to provide reasonable protection against harmful exposure when operating the device in a commercial environment. This product generates, uses and may emit radio energy. It may in addition interfere with other radio communication systems if not installed or used according to this manual. Using the device in residential areas may cause disturbances to be possibly remedied at the user's expense.



Hereby KATHREIN Digital Systems GmbH declares that the window/door contacts FMK 100w (order number 2220000009, EAN 4021121548864), FMK 100b (order number 2220000015, EAN 4021121548543) and FMK 100a (order number 2220000016, EAN 4021121548550) are in conformity with the relevant provisions of Directive 1999/5/EG.

Conformity:

The declaration of conformity is available at <http://www.kathrein-ds.com> in the download section of the respective product. Alternatively, you can request the declaration of conformity directly from us:

KATHREIN Digital Systems GmbH
Anton-Kathrein-Str. 1-3
83022 Rosenheim, Germany

Important Safety Information



WARNING

The warranty claim will expire in case of damages resulting from the non-observance of this manual.

We do not assume any liability for consequential damages.

We do not assume any liability for damages to persons and/or material whatsoever which result from improper handling or noncompliance with the safety instructions. The warranty claim will expire in such cases!

The window/door contacts FMK 100w, FMK 100b and FMK 100a are equipped with a high-quality housing. However, please observe the following safety instructions:

- Operate the window/door contact only with the provided batteries.
- Handle the window/door contact with care, heavy vibration or bumps may damage the device.
- Do not expose the window/door contact to direct sunlight or strong heat, e.g. heaters.
- Do not install the window/door contact close to strong electric power lines or magnetic fields, as this may impair the transmission quality significantly.
- Constructions made of iron or aluminium can influence the wireless transmission significantly.
- Do not install the window/door contact in moist, very cold or very hot environments.
- The window/door contact is designed for indoor use only.
- Persons (including children) with limited physical, sensory, or mental abilities and/or lacking experience and/or knowledge must not use this product.
- Keep children away from the product and other connected electrical appliances at all times. The window/door contact includes small parts they can swallow. Lay cables expertly so that they are neither bent nor otherwise damaged. Install the window/door contact out of children's reach. Do not leave packaging materials unattended, as they may be dangerous for playing children.
- Use a damp cloth to clean the alarm panel's surface, then dry it. Cleaning agents will damage the surface.

Malfunctions and Defects

If you notice any kind of defect, remove the batteries from the window/door contacts FMK 100w, FMK 100b and FMK 100a and contact your retailer or KATHREIN Digital Systems GmbH directly. Any further usage of the system may lead to fire or electric shock!

Intended Use

The KATHREIN Digital Systems GmbH window/door contacts are designed to protect a window or a door. Use the window/door contacts indoors only. Any other use than that described in this manual is not permitted and will void any warranty or guarantee as well as liability claims. The same applies if the device is modified or retrofitted.

Disposal



Do not dispose of the device with domestic waste!

This product complies with the EU Directive on waste electrical and electronic equipment (WEEE) and therefore must not be disposed of with domestic waste. Dispose of the device via your local collection point for waste electronic equipment!

This product contains software programs subject to the GPL free software license.

This product contains software that was developed by third parties and/or software subject to the GNU General Public License (GPL) and/or the GNU Lesser General Public License (LGPL). We will send you the source code of these programs on request. The GPL and/or LGPL code used and offered in this product is EXCLUSIVE OF ANY GUARANTEE WHATSOEVER and is subject to the copyright of one or several authors. For further details, please refer to the GPL and/or LGPL code of this product and to the terms of use of GPL and LGPL.

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For an unofficial German translation, please go to
<http://www.gnu.de/documents/gpl.de.html>.

Window/Door Contact FMK 100

Product description:

The KATHREIN Digital Systems GmbH window/ door contact is an integral part of your alarm system and is used to secure your windows and doors. The contact consists of two parts (sensor + magnet). One is fixed at your window or door frame, the other one is fixed at the wing of the door or window sash. Thus, the window/door contact immediately registers if a window or door is opened or closed. The window/door contact is available in three colors: white, brown, and anthracite.

Sensor data:

Dimensions sensor: 85 x 24.6 x 19.5 mm (3.3 x 0.96 x 0.76 in) (L x W x H)

Dimensions magnet: 45 x 12 x 9 mm (1.77 x 0.47 x 0.35 in) (L x W x H)

Weight: Sensor: 32 g (0.07 lbs), Magnet: 8 g (0.01 lbs)

Place of installation: Only indoors (windows/doors)

Operating temperature: -10 °C to 50 °C (14 °F to 122 °F)

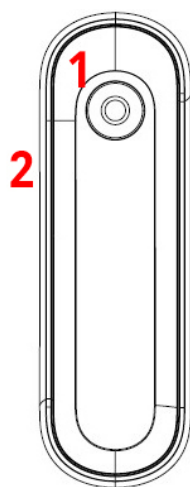
Humidity: Maximum 85% (non-condensing)

Radio frequency: 868.35 MHz

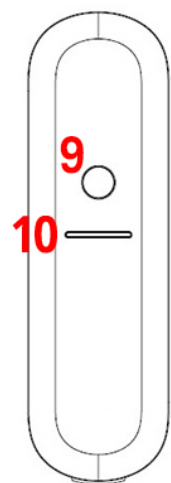
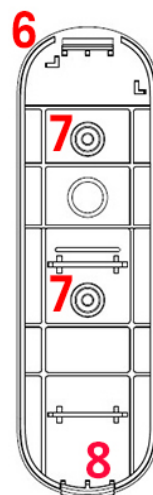
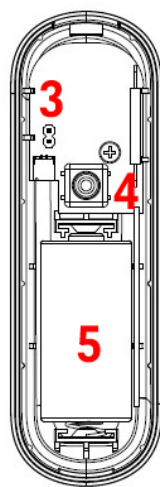
Detection method: Magnetic measurement

Sensor:

Top:

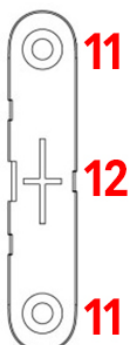


Bottom:

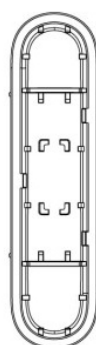


Magnet:

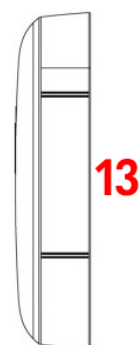
Top:



Bottom:



Lateral:



1. LED / Learn button
2. Magnetic contact marking
3. Switch for status monitoring
4. Tamper contact
5. Battery compartment
6. Fastening hook
7. Mounting holes (sensor bottom)
8. Notch for sensor opening
9. Opening for tamper contact
10. Opening for battery insulation tab
11. Mounting holes (magnet mount)
12. Mounting recess for top of the magnet
13. Magnet (to be positioned at the markings [2])

LED:

In normal circumstances, the LED of the window/door contact will be off. It only flashes in the following cases:

- If the window/door contact is removed or turned in a different position (in this case, the tamper contact is opened)
- If the battery is low and the sensor is opened
- During the range test for three minutes after you pressing the Learn button

Battery:

The window/door contact requires a 3V CR123 lithium battery. The average battery life is 2.6 years (if used 20 times a day). After the sensor has transmitted the low battery warning, the battery will last for about one more month.

Connecting the window/door contact and putting it into operation

1. Remove the battery insulation tab at the back of the unit before the first use.
2. Open the web interface of the alarm panel, go to the menu "Sensors" → "Add" and press "Start".
3. Press the Learn button of the window/door contact. A red LED lights up.
4. The alarm panel will confirm the successful addition with a brief signal tone and display the sensor in the lower menu.
5. Click "Add" to add the sensor to the sensor list.

Range test:

To test the signal strength at the desired installation location, perform a range test.

1. Open the alarm panel menu "Sensors" → "Range" and press "Start".
2. Press the Learn button of the window/door contact.
3. The sensor and the signal strength should be indicated. The higher the indicated number the better the reception (1-9).
4. Click "Stop" to end the test.

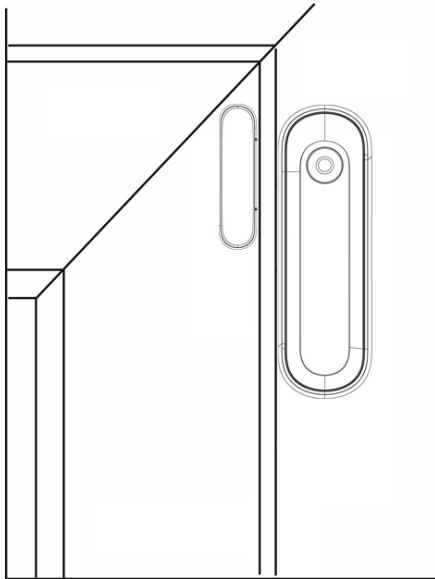
Please note:

If there is no signal at the installation location or the signal strength is below 4 or frequently falls below this level (signal fluctuations of 2 to 3 are normal), we recommend using a repeater to improve the signal.

Installation:

- We recommend screwing the supplied screws through the marked holes for mounting the sensor (7) and the magnet (11).
- Alternatively, you can use the supplied self-adhesive pads for mounting the sensor/magnet. Since the adhesive strength of the pads may decrease after some time, there is a risk that the sensor/magnet will then detach from the surface.
 - Before using the adhesive pads, clean the surface with a degreaser.
 - Remove the protective film from one side of the double-sided adhesive pad and press the adhesive pad firmly against the sensor for approx. 1 minute. Then remove the protective film from the other side and press the sensor firmly onto the surface.
- The sensor consists a top and a bottom part. To open the sensor, slide a narrow slotted screwdriver into the notch (8) and tilt the top of the sensor upwards.
- To close the sensor, hook in the mounting hook (6) and tilt the top part downwards. Click it into the recesses of the bottom part and make sure that the two sensor parts are firmly seated on top of each other.
- When closing the sensor, the tamper contact (4) must protrude through the opening (9) and rest against the wall. If the housing is opened after installation or the window/door sensor is torn off, a signal will be transmitted to the alarm panel.
- As with the sensor housing, the top part of the magnet can be detached from the bottom part for screwing the magnet on. To open the magnet, slide a narrow slotted screwdriver into the notch between the top and the bottom part of the magnet.
- To reassemble both parts of the magnet, click the top part into the recesses (12) of the bottom part.

Sketch:



- This sketch only serves as an example. The window/door sensor can also be installed at other positions.
- We recommend installing the magnet on the door or window side and the sensor on the frame.
- Pay attention to the marking (2) when installing the sensor. The magnet (13) must be installed close to this marking (maximum distance 20–30 mm) to close the sensor circuit. The status (open or closed) can be monitored in the sensor list of the web interface of the alarm centre.

Note:

- The window/door sensor can also be installed on double casement windows. The distance between sensor and magnet must not exceed 20–30 mm.
- If the sensor is installed at the bottom of a window, it is possible to **tilt** the window without triggering an alarm (maximum distance between sensor and magnet 20–30 mm). We do not recommend this type of installation, as tilted windows represent a security risk.
- If the window/door contact is installed on metal/steel doors, it should be insulated from the mounting surface by means of a rubber pad. Failure to do so may result in malfunctions.
- Do not bypass the jumper (3) in the housing to keep the supervisor test/battery test of the sensor activated.

