SIEGENIA
brings spaces to life

ASSEMBLY, OPERATING AND CARE INSTRUCTIONS

Smart Sensor

Table of contents

1 ABOUT THIS DOCUMENTATION 4
1.1 Read the instructions 4
1.2 Producer 4
1.3 Target group 4
1.4 Other relevant information 4
1.5 Figures and symbols 4

2 SAFETY 5
2.1 Designated use 5
2.2 Requirements for the target group 5
2.3 Safety information 6

3 PRODUCT SPECIFICATIONS 7
3.1 Scope of delivery 7
3.2 Structure 7
3.3 Operating and display elements 8
3.3.1 Status LED 8
3.4 Explanation of terms and functionality 8
3.4.1 Smart Sensor 8
3.4.2 Smart home network 8
3.5 Dimensions 12
3.6 Technical specifications 12

4 INSTALLATION 13
4.1 Concealed 13
4.1.1 Mount sensor in holder 13
4.1.2 Mounting sensor and slider 14
4.1.3 Mounting sensor and plug-in cam 16
4.1.4 Mounting sensor and magnet 19
4.2 Surface-mounted 22
4.2.1 Mounting sensor and magnet 22

5 COMMISSIONING 25
5.1 Teach sensor in SIEGENIA HomeConnect app 25
5.2 Teaching in the sensor in the Smart Home app 26

6 CARE AND MAINTENANCE 28
6.1 Notes on cleaning and maintenance 28
6.2 Replace battery 28

7 TROUBLESHOOTING 29
7.1 Contact to producer 29
7.2 Troubleshooting 29
7.3 Performing manual calibration 30
7.4 Perform a factory reset 31
7.5 Check position of magnetic cam 32

8 COMPLIANCE 33
8.1 EU declaration of conformity 33

1 About this documentation

1.1 Read the instructions

These instructions are an important document and part of the product. Only the defined procedures are safe. Persons can be injured or material damage could occur if these instructions are not observed.

Read and observe the instructions completely before using the product.

Retain these instructions, keep them available and pass them on to subsequent users.

1.2 Producer

SIEGENIA-AUBI KG
Industriestraße 1 – 3
57234 Wilnsdorf
Germany

You can find the addresses of our worldwide locations here: siegenia.com/company/locations

Entry in the Commercial Register:

- Registry court: Siegen District Court
- Register number: HRA 3741

1.3 Target group

This information is aimed at all persons who carry out the following activities:

- operation and maintenance of SIEGENIA products
- operation and maintenance of window elements or door elements that are equipped with SIEGENIA products

1.4 Other relevant information

Note the following additional relevant information prior to installation and operation.

- Compatibility list: link.si/td/tit003/0324

1.5 Figures and symbols



LED lights up



LED flashes

2 Safety

2.1 Designated use

The smart sensor is a product for monitoring windows, doors and sliding elements.

- The product is designed for integration in smart home networks. The user is responsible for ensuring a functioning smart home network.
- The current status of the product is displayed in the SIEGENIA HomeConnect app.

2.2 Requirements for the target group

The following persons may only operate the product if they have understood the dangers involved in handling the product or if they are supervised during operation:

- children
- persons with diminished physical, sensory or mental capabilities
- persons with a lack of experience and knowledge

2.3 Safety information

Chemical burns from swallowing batteries

If swallowed, batteries cause severe internal chemical burns within 2 hours, which can be fatal.

- Keep batteries away from children.
- Do not swallow batteries.
- If a battery is swallowed, consult a doctor immediately.
- Do not continue to use the product if the battery compartment does not close securely.

Risk of explosion if batteries are handled incorrectly

Risk of explosion due to flammable liquids or gases escaping.

- Keep batteries away from children.
- Do not pierce, deform or dismantle batteries.
- Do not dispose of batteries in a fire.
- Do not continue to use the product if the battery compartment does not close securely.

Risk of explosion due to electrical sparks

When operating the product in environments with an explosive atmosphere, electrical sparks may cause an explosion. Explosive atmospheres are created, for example, by flammable liquids, steam, gas or dust.

- Do not use the product in environments with an explosive atmosphere.

Risk of falling when working at certain heights

When carrying out installation, cleaning and maintenance work at certain heights, there is a risk of falling and injuring yourself.

- Where possible, do not install the product any higher than 1.50 m from the ground.
- If installing the product more than 1.50 m from the ground, use a ladder or a step.
- Follow the safety instructions when handling ladders and steps.

Risk of injury from using unsuitable components

Components, accessories and spare parts which do not comply with SIEGENIA requirements can impair the safety of the product and lead to accidents.

- Use original parts or components that comply with the SIEGENIA requirements. If in doubt, seek confirmation from SIEGENIA.

Tampering with the smart home system by unauthorised individuals

A smart home system that is not secure or has outdated firmware makes unauthorised access easier.

- Enable automatic firmware updates.
- Choose secure passwords.
- Do not share passwords with anyone.

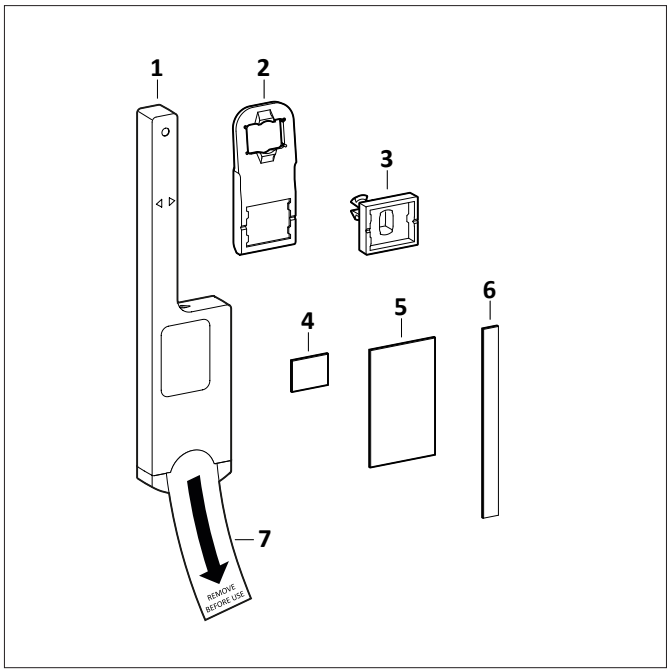
Material damage due to dirt or dust in the product

Dirt or dust inside the product can cause damage to the product.

- Always close the battery compartment using the casing cover.
- Cover the product during construction or renovation work.

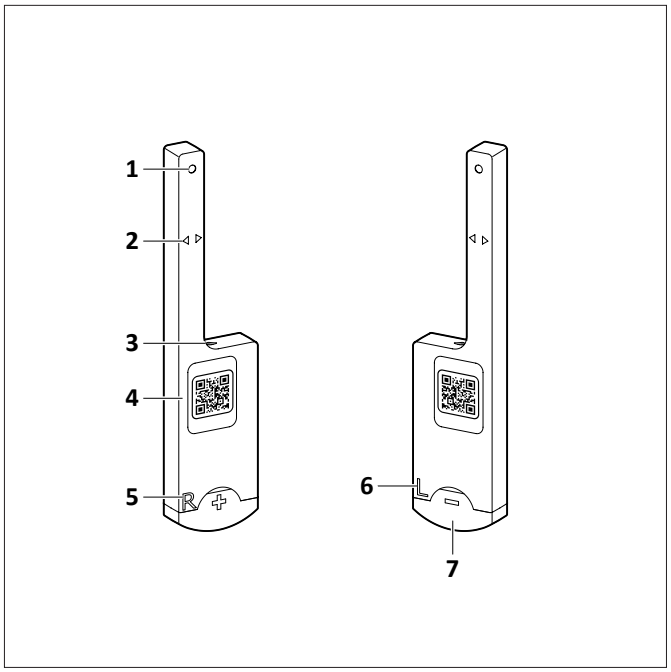
3 Product specifications

3.1 Scope of delivery



Item	Name	Units
1	Smart Sensor	1
2	Slider with magnet	1
3	Plug-in cam	1
4	Magnet adhesive pad	1
5	Sensor adhesive pad large	1
6	Sensor adhesive pad small	1
7	Battery contact protection	1
-	Battery	1

3.2 Structure



Item	Name
1	Marking for the locking position
2	Marking for the magnet positioning
3	Status LED
4	QR code
5	Marking for window DIN-R
6	Marking for window DIN-L
7	Battery compartment

3.3 Operating and display elements

3.3.1 Status LED

Action	Status LED		Description
Pull the battery earth contact out of the battery compartment		The status LED lights up red for 2 s	The sensor is ready for operation.
		The status LED lights up red 2x for 2 s	The sensor is ready for operation and the magnet is within the sensor's range.
Insert the battery		The status LED lights up red for 2 s	The sensor is ready for operation.
		The status LED lights up red 2x for 2 s	The sensor is ready for operation and the magnet is within the sensor's range.
Teaching in the sensor		The status LED flashes red 5x, goes out for 10 s and flashes red again 5x	The calibration was successfully completed.
		The status LED flashes red rapidly for 10 s	The calibration was terminated.
Battery monitoring		The status LED flashes red 3 times every 5 s	The battery status is critical.
Perform a factory reset		The status LED flashes red 5x	The factory reset was successfully completed.
		The status LED lights up red for 2 s	The factory reset was terminated.

3.4 Explanation of terms and functionality

3.4.1 Smart Sensor

- The smart sensor is a sensor for integration in smart home networks.
- The sensor monitors the opening status of windows and French doors.
- The sensor communicates with a home controller via the wireless protocol Thread.

3.4.2 Smart home network

WiFi router

A WiFi router relays WiFi radio signals to other devices in a smart home network. WiFi routers must be ready to transmit and receive signals at all times.

Home controller

- A home controller is the control centre in a smart home network. All devices in a smart home network are connected to the home controller and communicate via the home controller. The home controller must be within range of a WiFi router.
- The home controller is operated via a smart home app.

SIEGENIA HomeConnect app

- The SIEGENIA HomeConnect app is used to control and monitor SIEGENIA smart home devices in a smart home network.
- The status of the sensor is displayed in the SIEGENIA HomeConnect app.
- The charge level of the battery is displayed in the SIEGENIA HomeConnect app.
- The SIEGENIA HomeConnect app features an installation wizard for step-by-step installation and initial setup of the sensor.

Smart Home app

- A smart home app is used to operate a home controller and control and monitor Smart Home devices in a smart home network.
- The status of the sensor is displayed in the Smart Home app.

Matter

Matter is a communications standard for smart home networks. Matter allows smart home devices from different producers to communicate with one another. For example, the smart window handle can be connected to Matter-enabled devices such as a heating thermostat. Matter uses the following wireless protocols for communication:

- Wi-Fi
- Thread
- Bluetooth Low Energy

Thread

Thread is a wireless technology in a smart home network. Thread requires minimal energy for transmitting and receiving. As a result, it is often used in battery-operated devices such as the smart window handles or smart sensors.

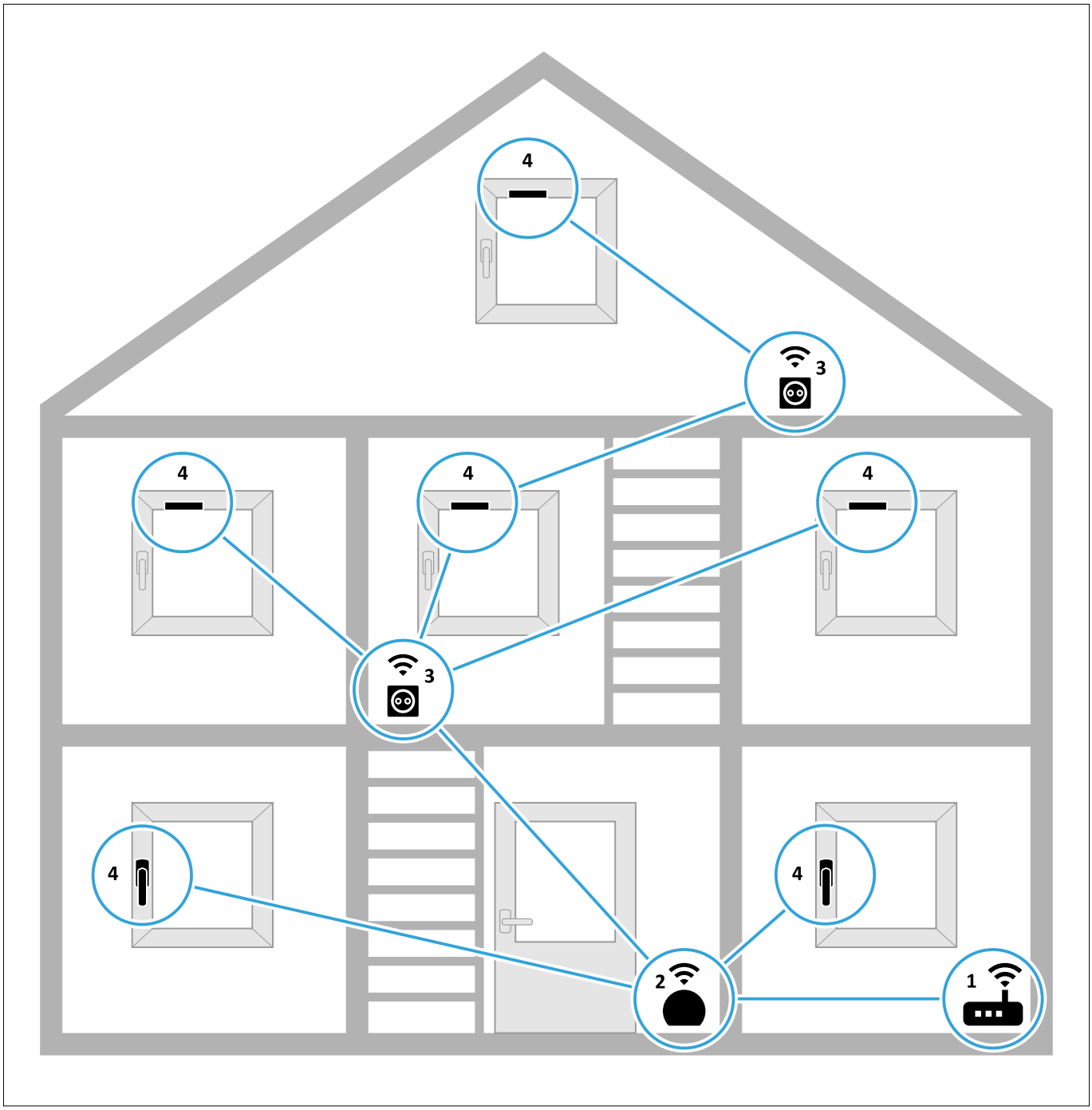
Thread devices that have a constant power supply also work as a Thread repeater, amplifying the wireless signal. This extends the smart home network for Thread devices, and Thread devices that are further away can be integrated into the smart home network.

Sources of interference

The following sources of interference can adversely affect the smart home network:

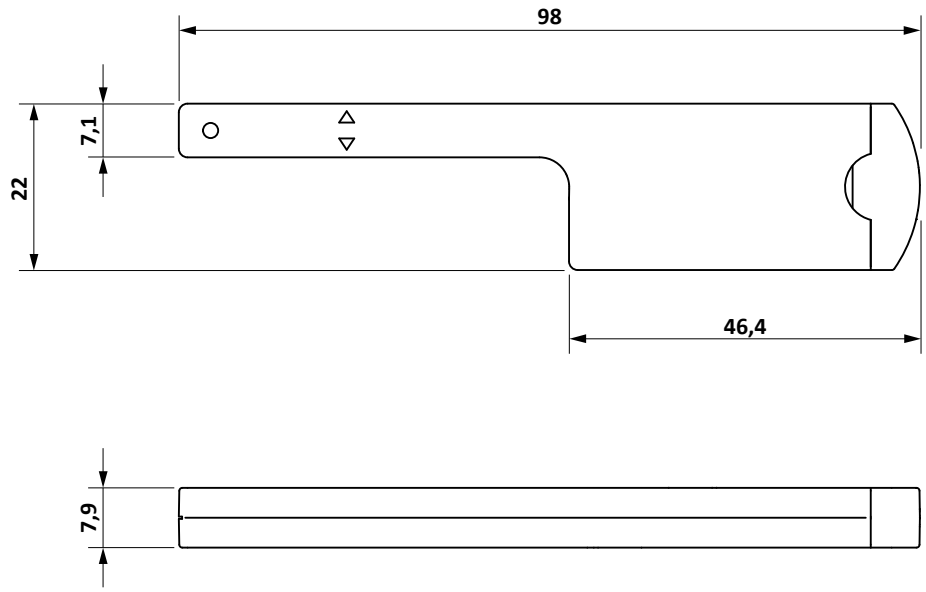
- Structural obstacles (signal attenuation and reflection)
- Solid masonry (stone and reinforced concrete walls as well as ceilings)
- Metal objects and metal housings (e.g. large domestic appliances)
- Water-bearing pipes or floor heating systems (water absorbs high-frequency signals)
- Active radio frequency interferences (interchannel interference to 2.4 GHz)
- Other wireless devices (e.g. DECT wireless telephones, baby monitors, Bluetooth speakers)
- Nearby wireless local area or Zigbee networks on the same or overlapping radio channels
- Electromagnetic and magnetic fields of interference
- Electromagnetic fields due to power lines or large electric motors
- Powerful magnets (e.g. neodymium magnets) in immediate proximity to the product

Installation example



Item	name
1	WiFi router
2	Home controller
3	Thread repeater (e.g. Thread socket)
4	Smart window handle, smart sensor

3.5 Dimensions



Measurements in mm

3.6 Technical specifications

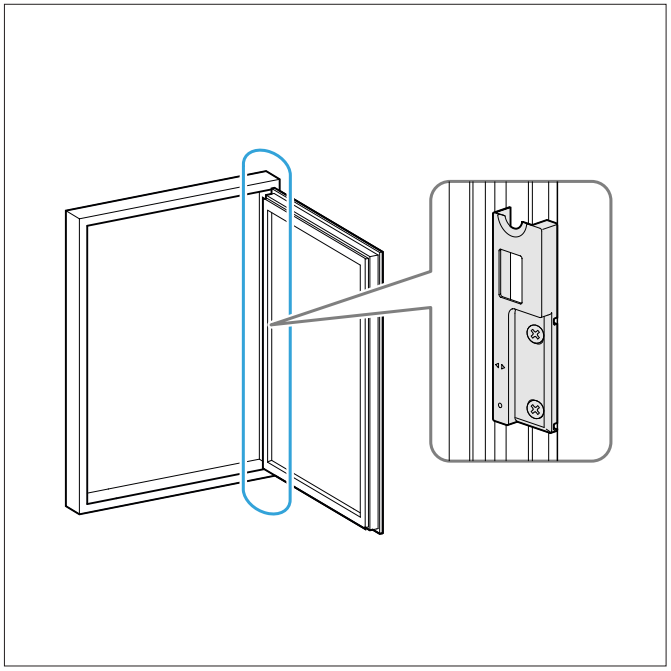
Communications standard	Matter
Wireless protocol	Thread
Wireless frequency	Bluetooth Low Energy
Installation location on window	In the sash, on the locking side
Supply voltage	3 V
Batteries	1x CR2032
Service life of batteries (dependent on the home controller used)	≥ 2 years
Weight	10 g
Atmospheric moisture (rel. humidity, non-condensing)	99 %
Wireless range (in open space)	100 m
Protection type	IP 64
Protection class	III
Permissible operating temperature	+25 °C – +50 °C

4 Installation

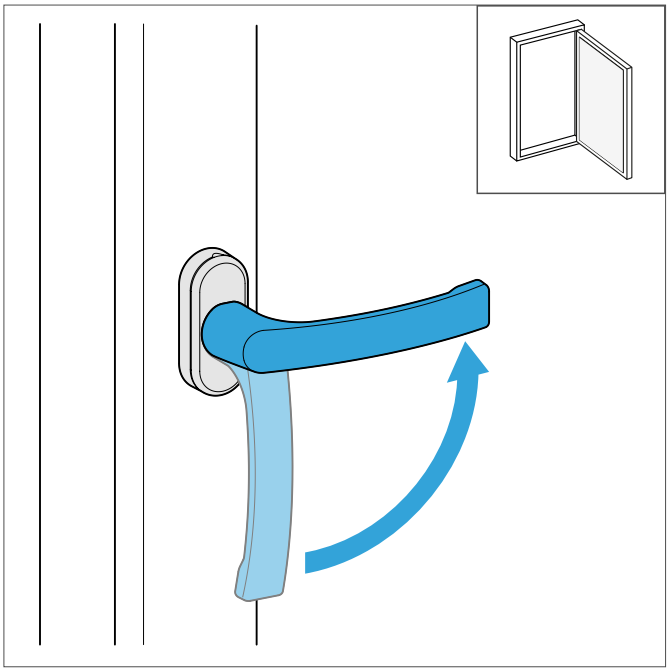
4.1 Concealed

4.1.1 Mount sensor in holder

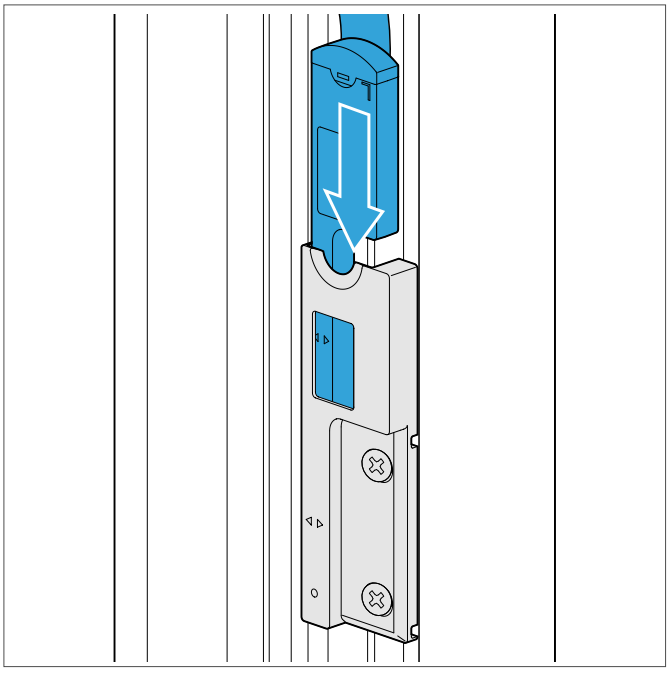
For window frames with a pre-installed bracket, only use the sensor.



1. Open the window.

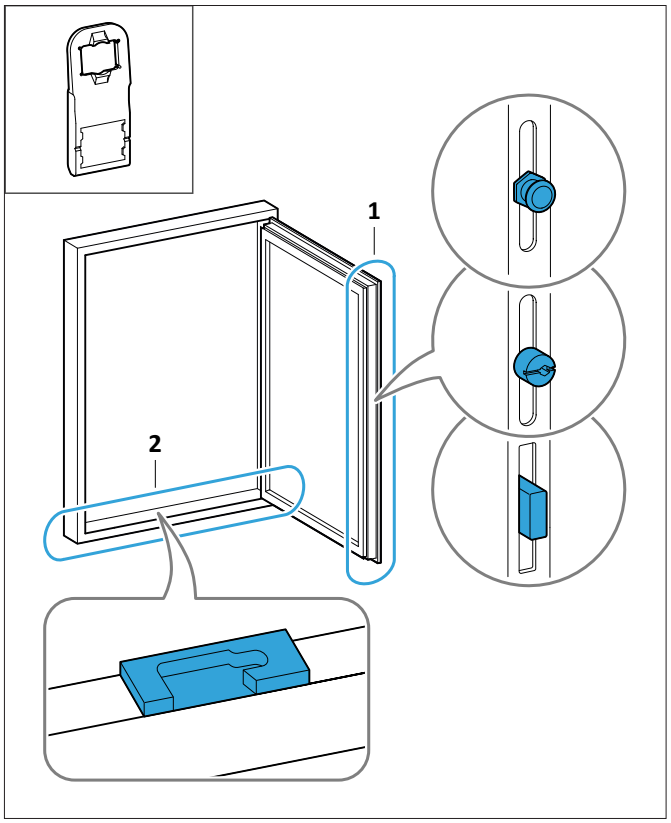


2. Slide the sensor into the holder.

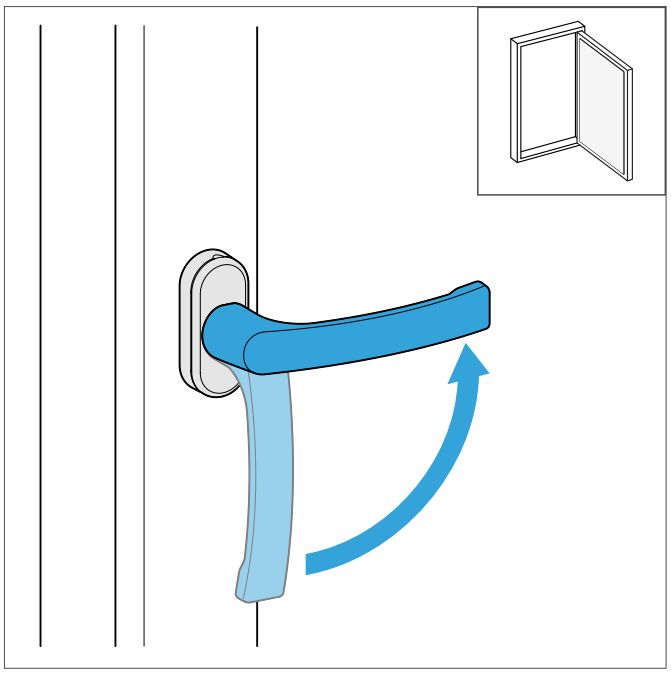


4.1.2 Mounting sensor and slider

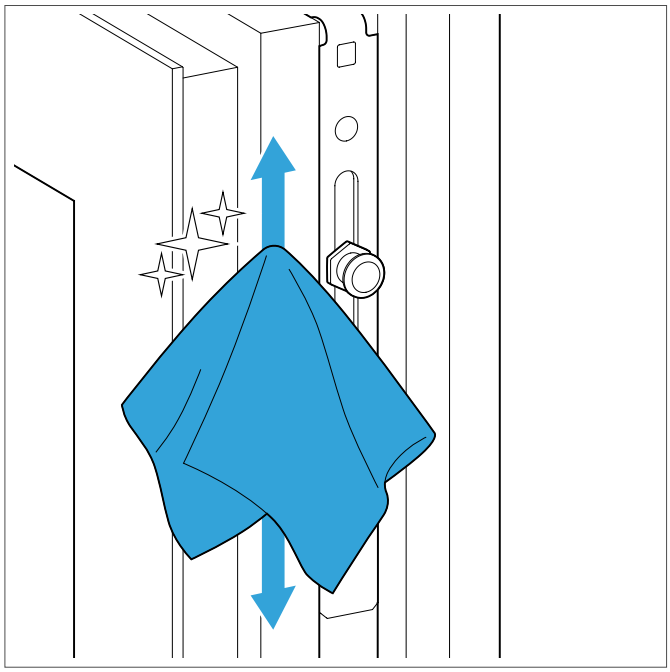
Use the sensor and the slider for window sashes with oblong holes and cams (1) and for surface-mounted striker plates (2).



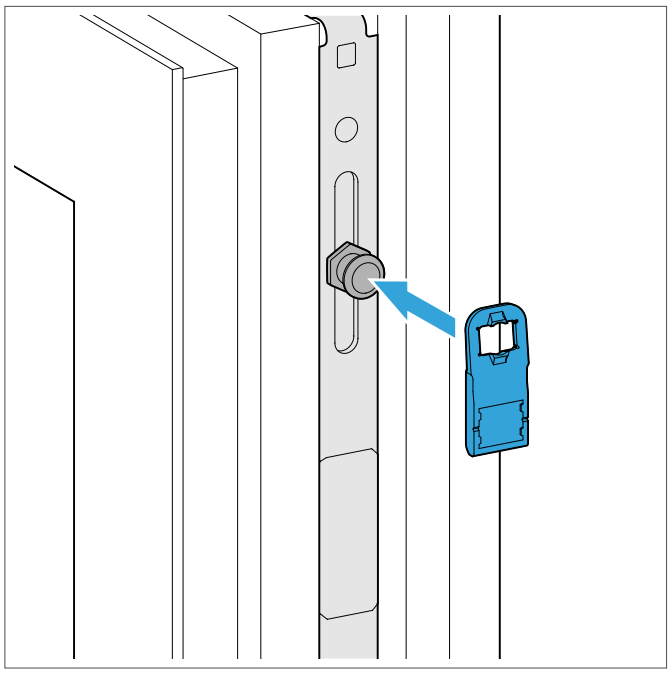
1. Open the window.



2. Clean the window sash at the installation position. The installation position must be dry, dust-free and grease-free.



3. Guide the slider with the magnet over the cam.



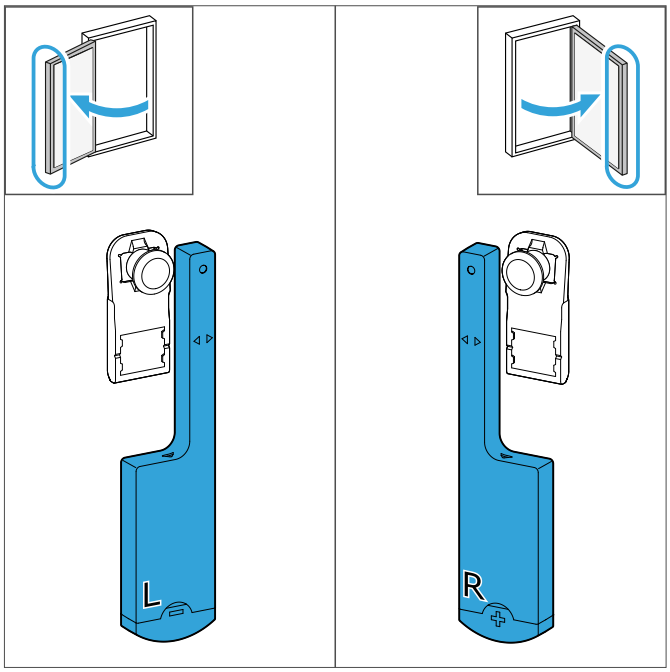
NOTICE

Material damage due to incorrect adhesion

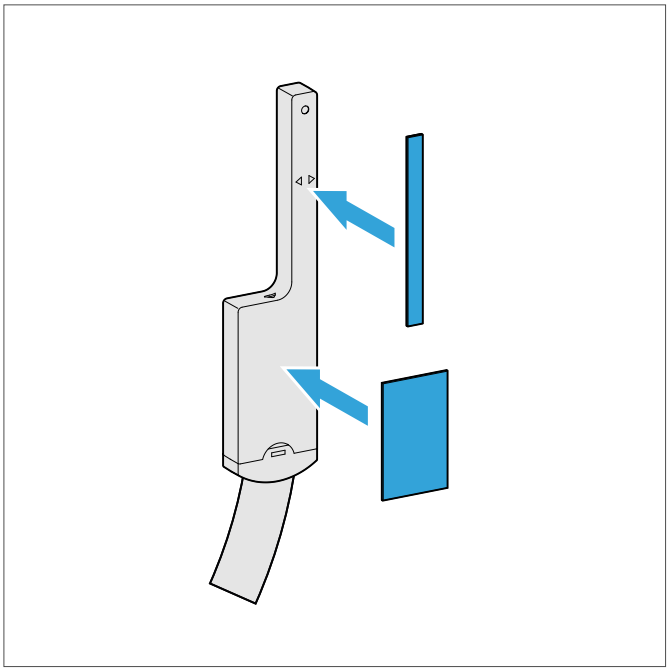
The sensor can fall off and shatter due to incorrect adhesion.

- Clean the installation position so that it is dry and free of dust and grease.
- Only use the adhesive pads 1x.
- If the adhesive pads have already been used, then use adhesive tape VHB 5925 F from the producer 3M.

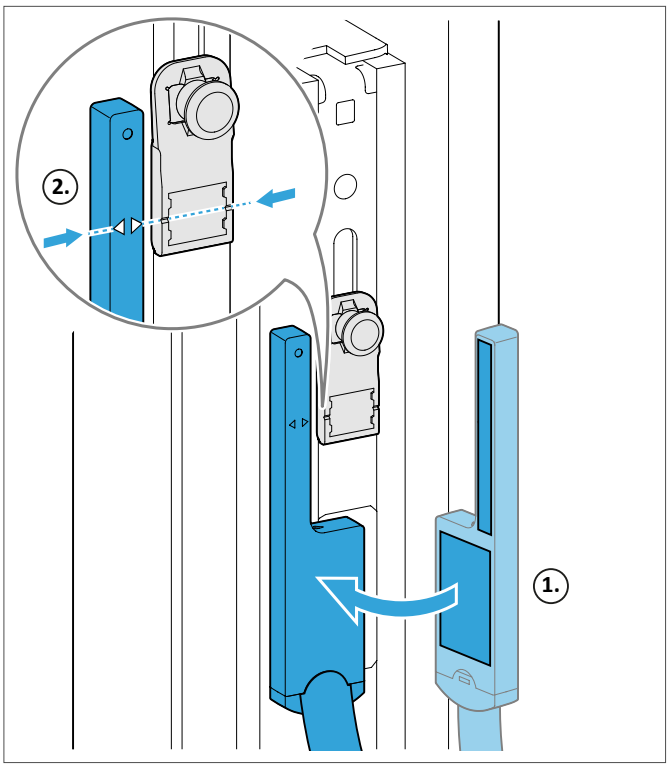
4. To glue the sensor adhesive pad correctly: for left-hand opening windows, fix the sensor so that the marking "L" is visible. For right-hand opening windows, fix the sensor so that the marking "R" is visible.



5. Glue the sensor adhesive pad to the sensor and press for at least 5 seconds.

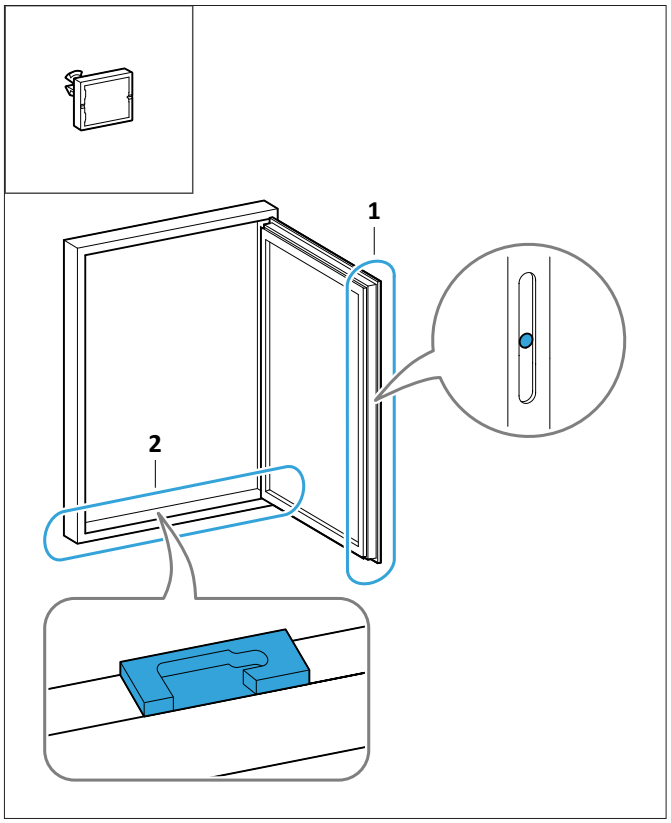


6. Position the sensor on the window sash (1). The marking on the sensor must be flush with the magnet (2). Press the sensor to the window sash for at least 5 seconds.

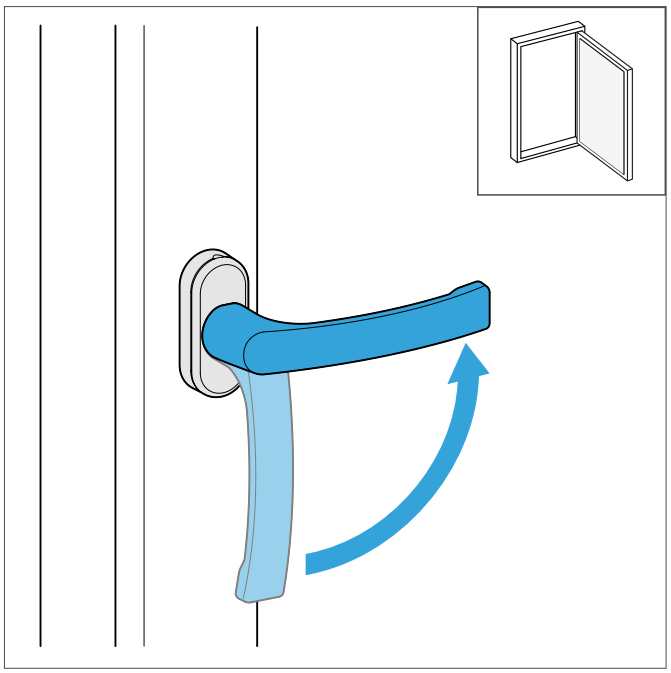


4.1.3 Mounting sensor and plug-in cam

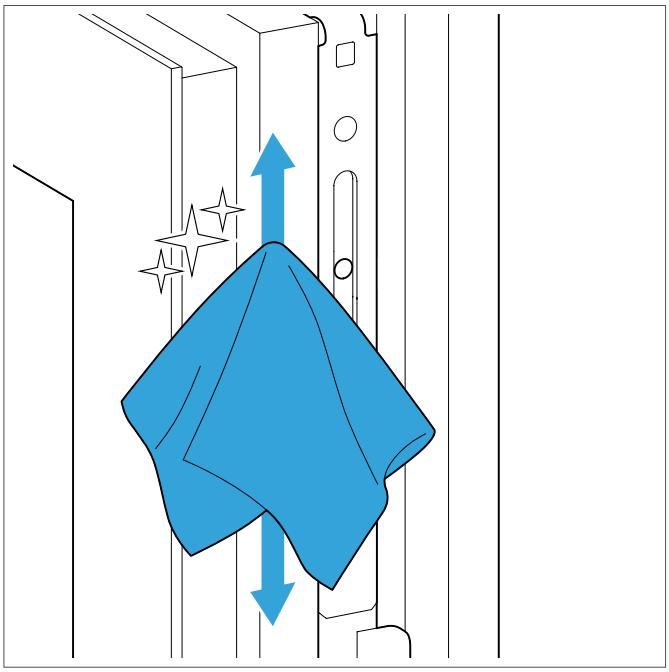
Use the sensor and the plug-in cam for window sashes with oblong holes and without cams (1) and for surface-mounted striker plates (2).



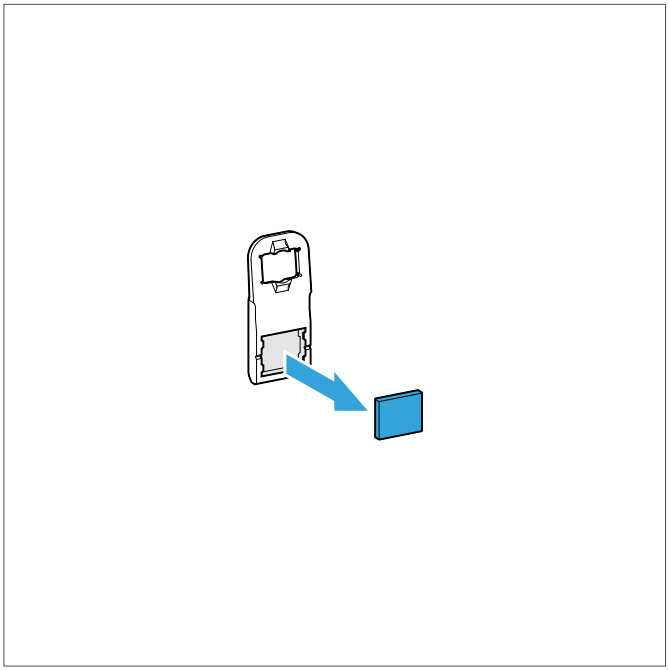
1. Open the window.



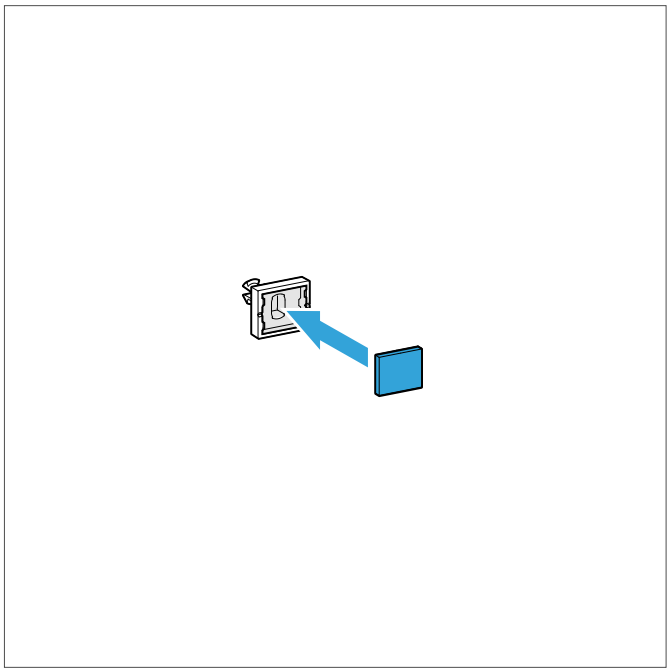
2. Clean the window sash at the installation position. The installation position must be dry, dust-free and grease-free.



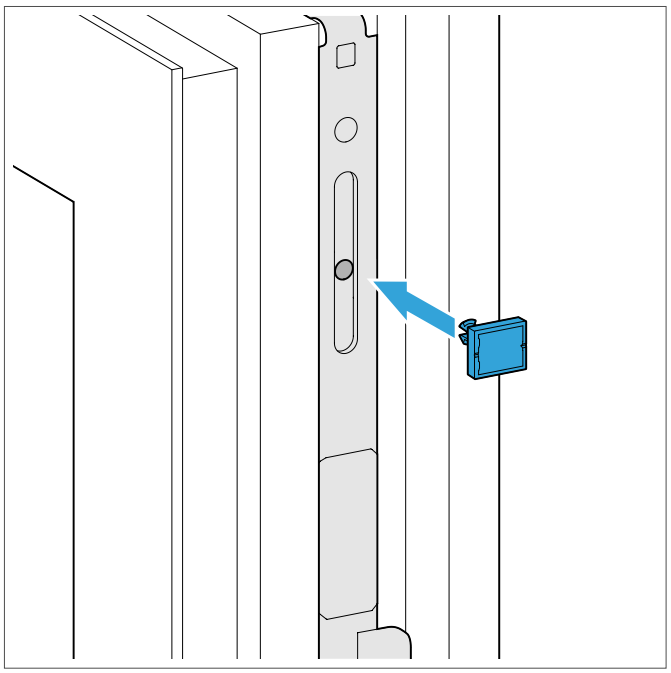
3. Remove the magnet from the slider.



4. Fix the magnet to the plug-in cam.



5. Clip the plug-in cam into the window hardware.



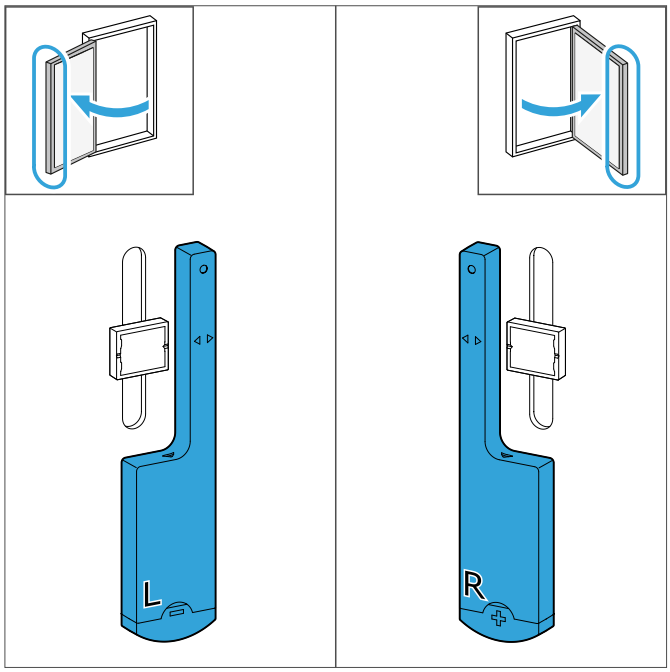
NOTICE

Material damage due to incorrect adhesion

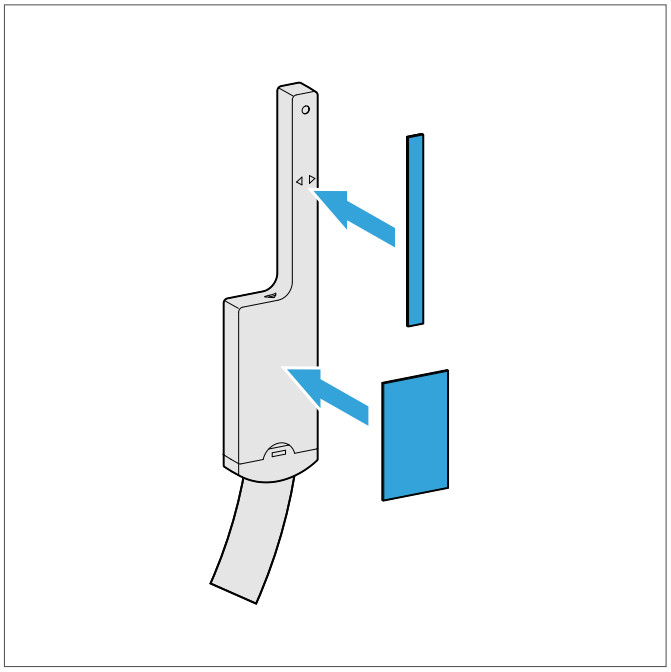
The sensor can fall off and shatter due to incorrect adhesion.

- Clean the installation position so that it is dry and free of dust and grease.
- Only use the adhesive pads 1x.
- If the adhesive pads have already been used, then use adhesive tape VHB 5925 F from the producer 3M.

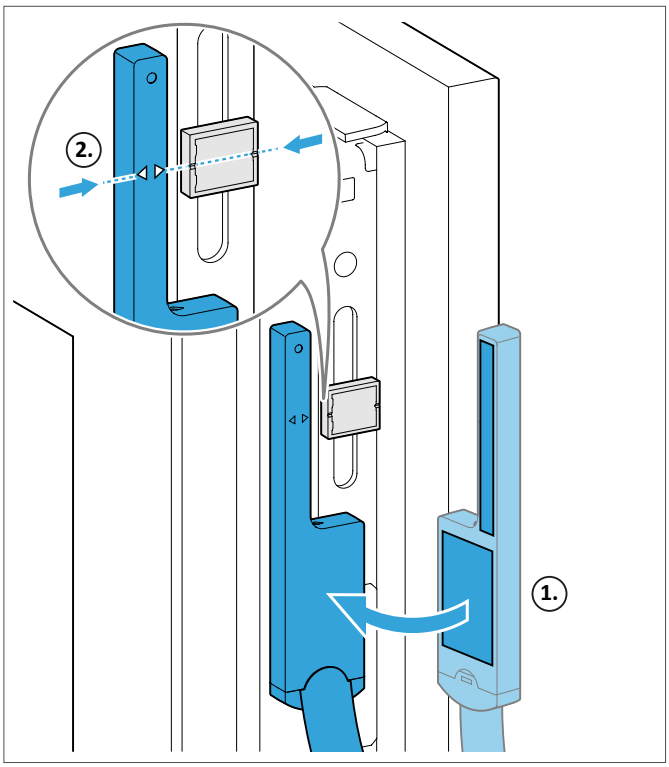
6. To glue the sensor adhesive pad correctly: for left-hand opening windows, fix the sensor so that the marking "L" is visible. For right-hand opening windows, fix the sensor so that the marking "R" is visible.



7. Glue the sensor adhesive pad to the sensor and press for at least 5 seconds.

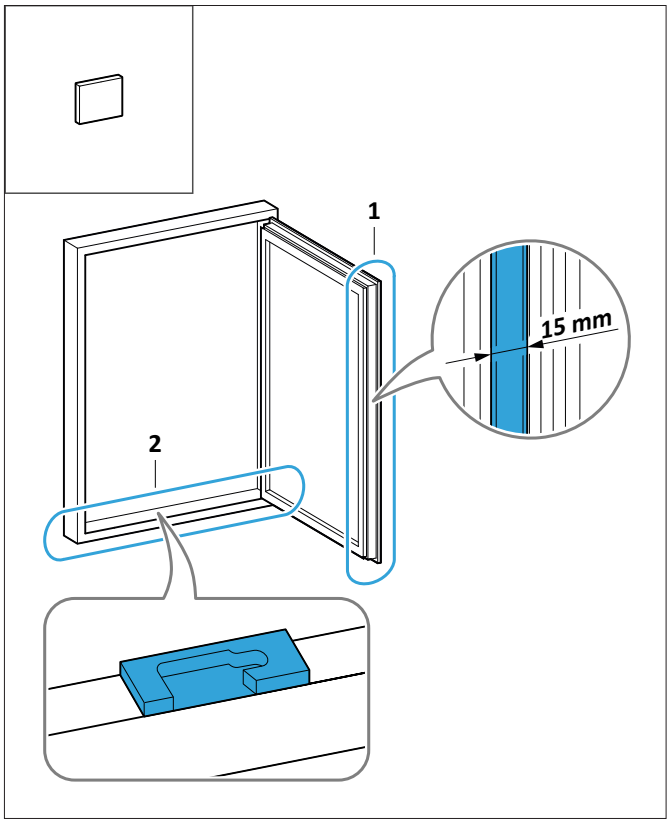


8. Position the sensor on the window sash (1). The marking on the sensor must be flush with the magnet (2). Press the sensor to the window sash for at least 5 seconds.

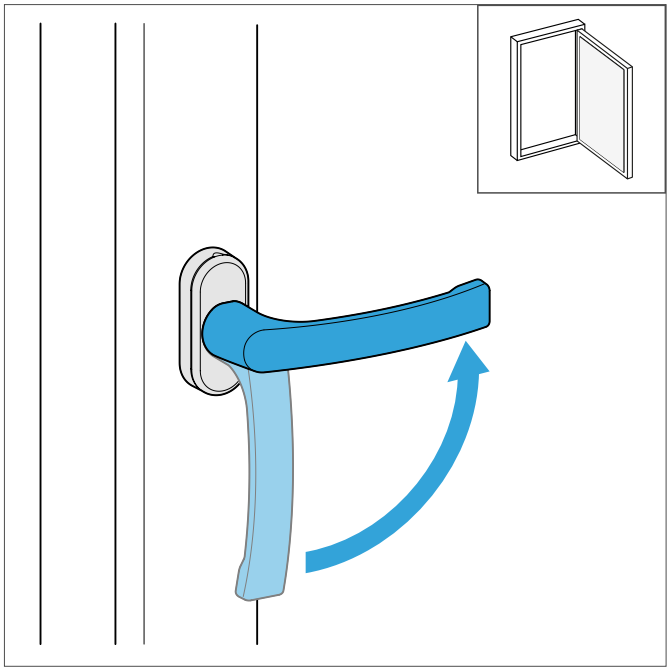


4.1.4 Mounting sensor and magnet

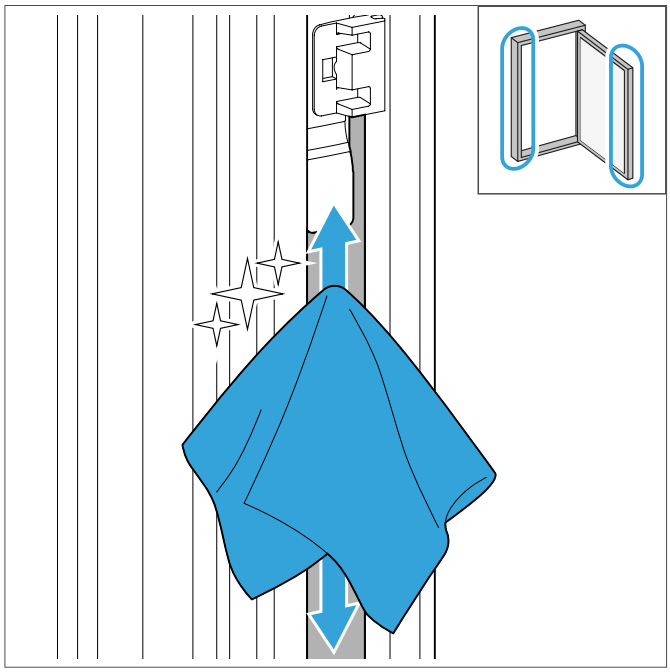
Use the sensor and the loose magnet for window sashes without oblong holes (1) and for surface-mounted striker plates (2).



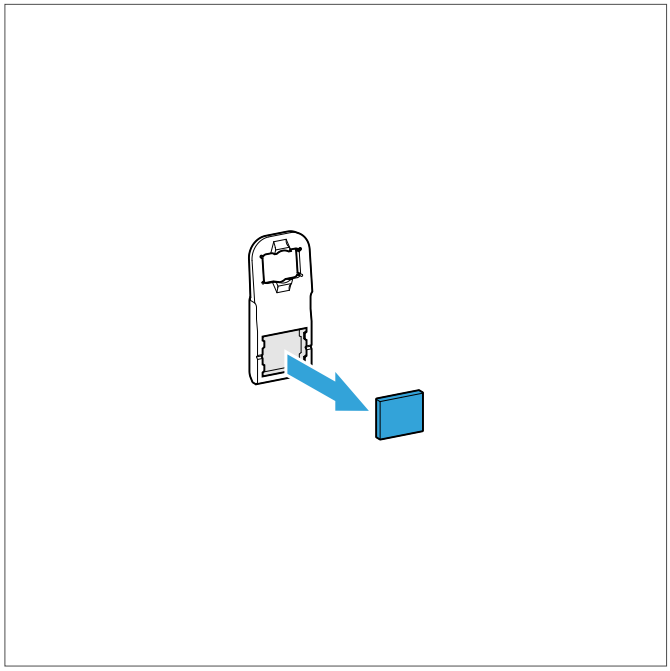
1. Open the window.



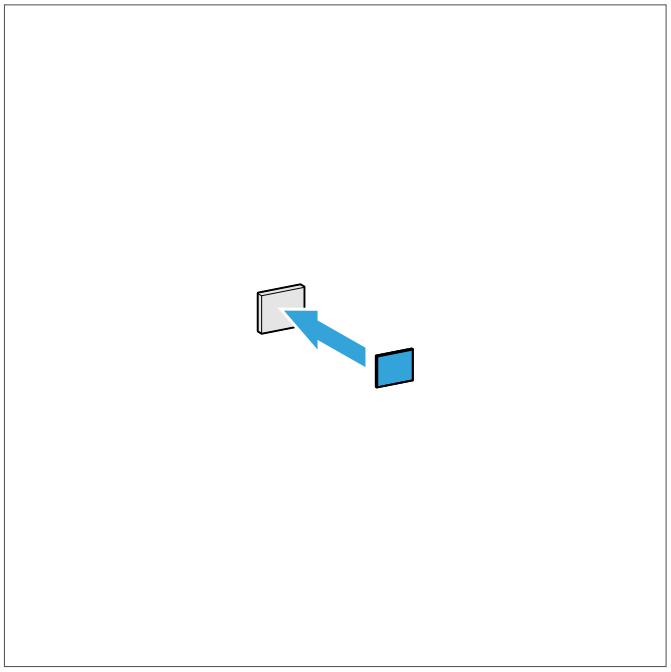
2. Clean the window sash and the frame at the installation position. The installation position must be dry, dust-free and grease-free.



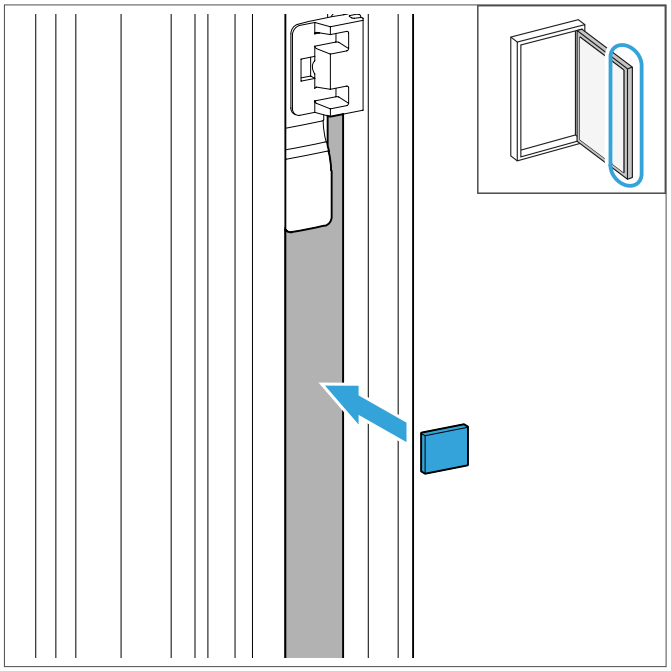
3. Remove the magnet from the slider.



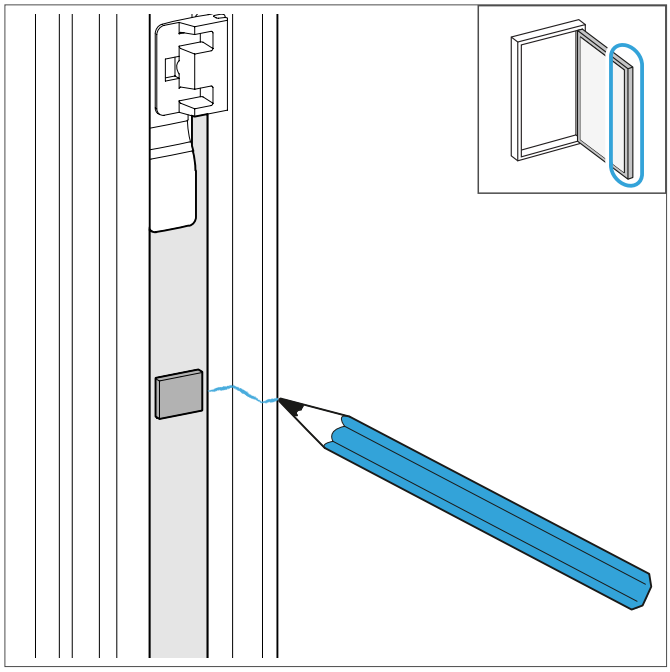
4. Glue the magnet adhesive pad to the magnet and press for at least 5 seconds.



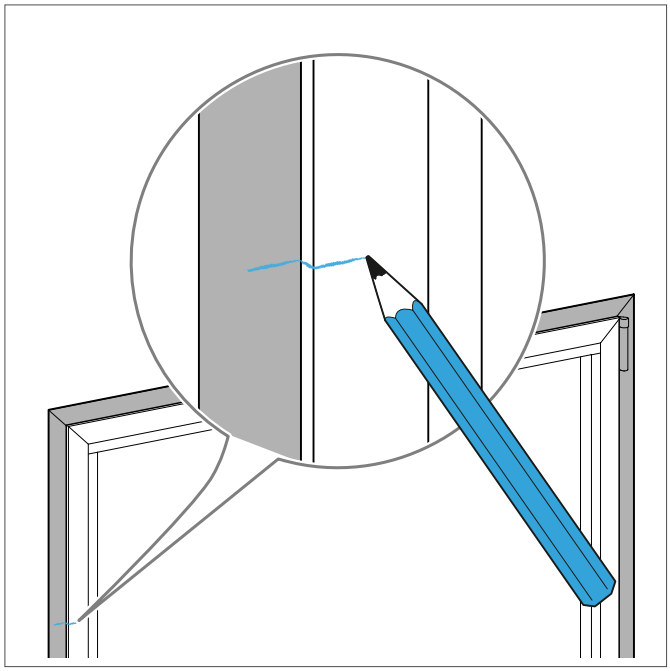
5. Glue the magnet to the operating rod on the window sash and press for at least 5 seconds.



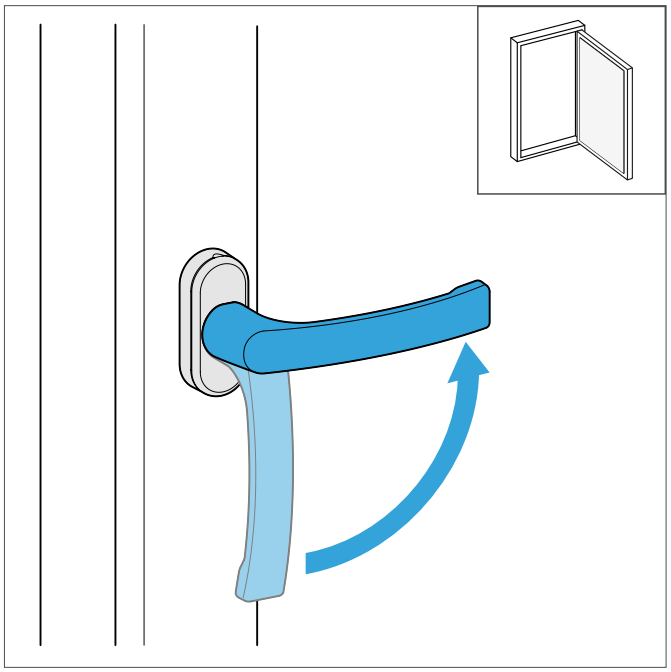
6. Mark the centre of the magnet on the window sash.



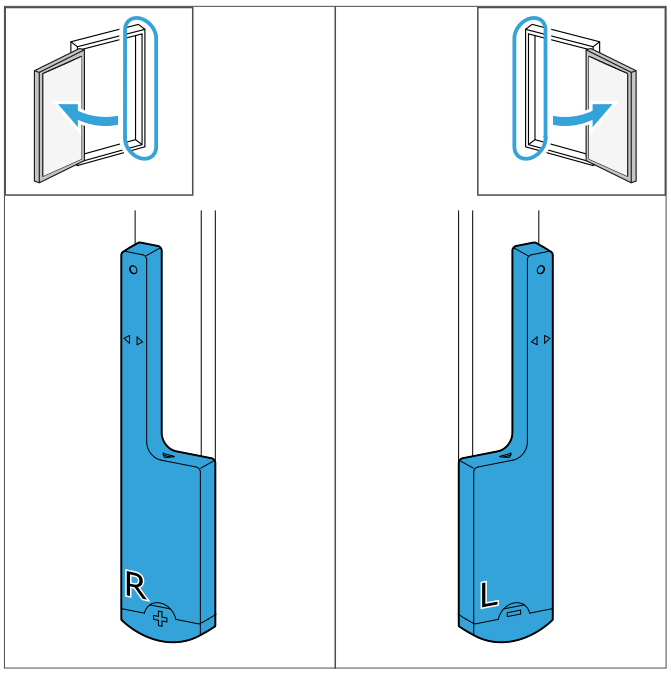
7. Close the window and transfer the window sash marking to the frame.



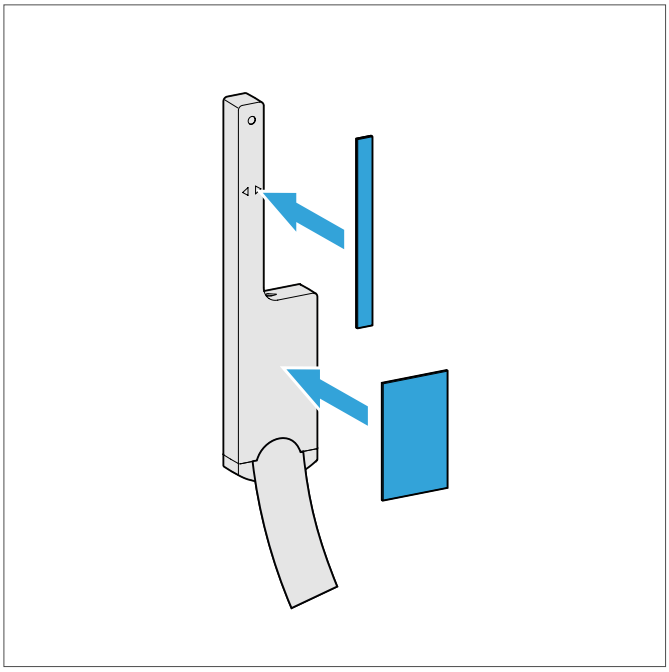
8. Open the window.



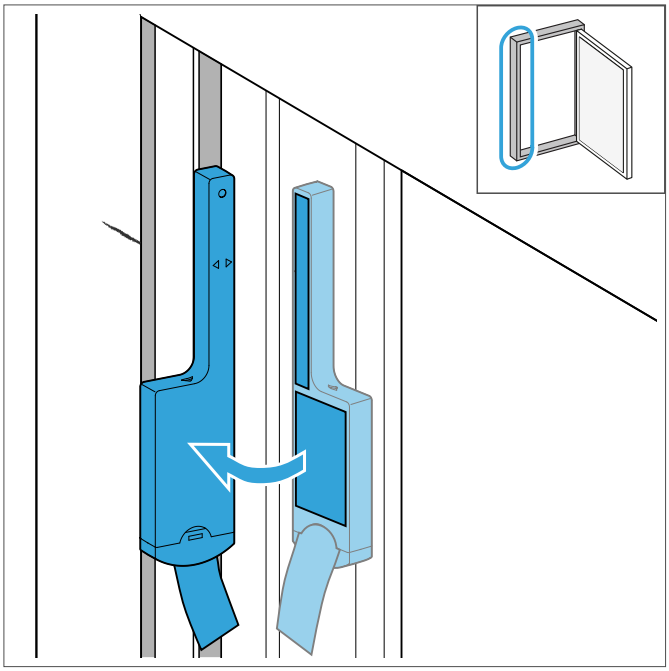
9. To glue the sensor adhesive pad correctly: for left-hand opening windows, fix the sensor so that the marking "R" is visible. For right-hand opening windows, fix the sensor so that the marking "L" is visible.



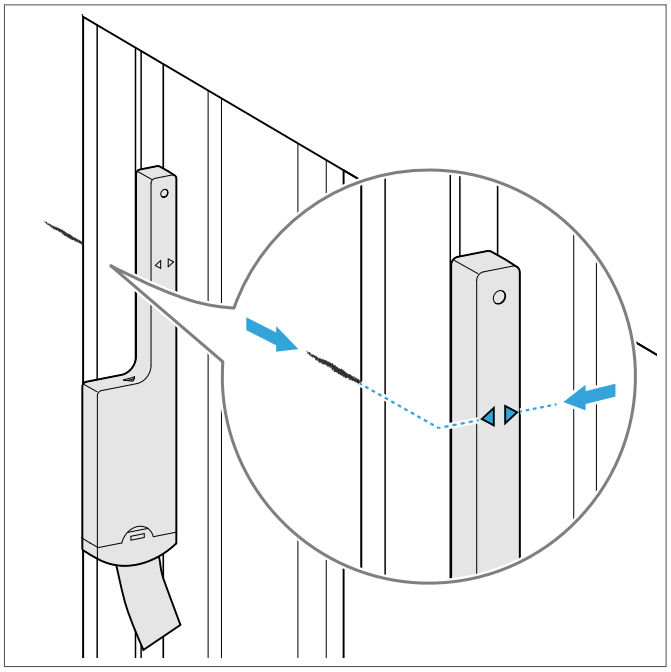
10. Glue the sensor adhesive pad to the sensor and press for at least 5 seconds.



11. Glue the sensor to the frame and press for at least 5 seconds.



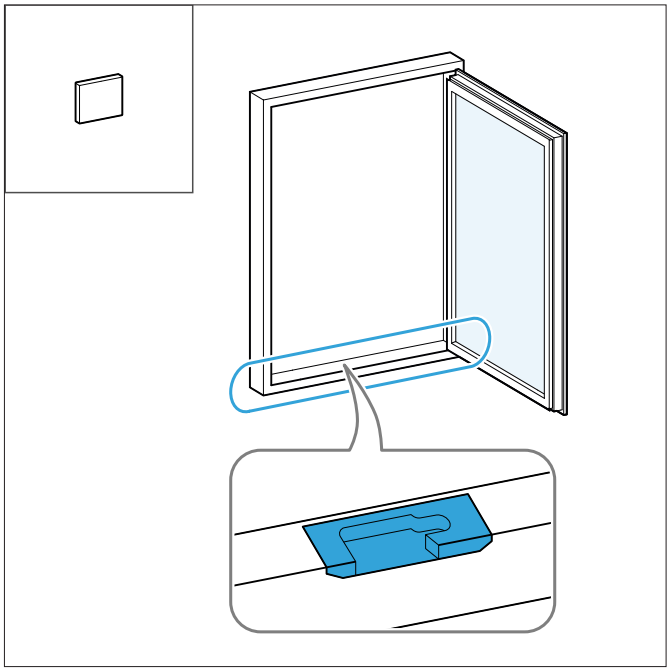
12. The marking on the sensor must be flush with the marking.



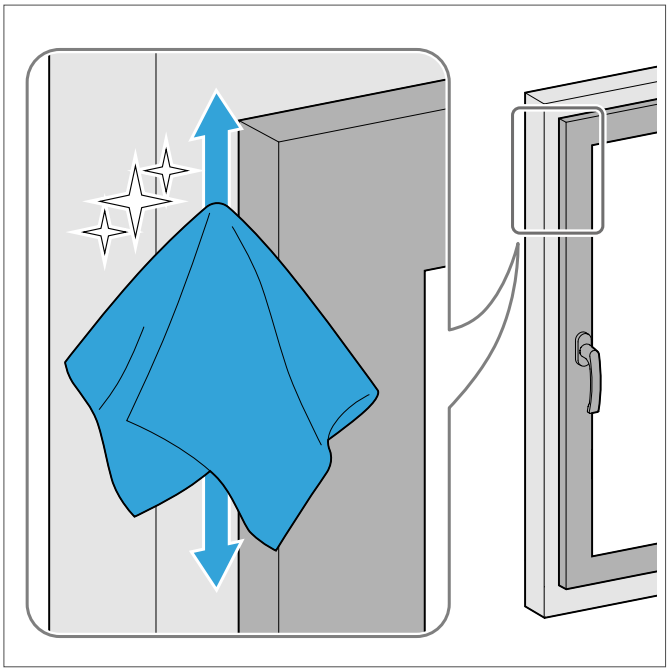
4.2 Surface-mounted

4.2.1 Mounting sensor and magnet

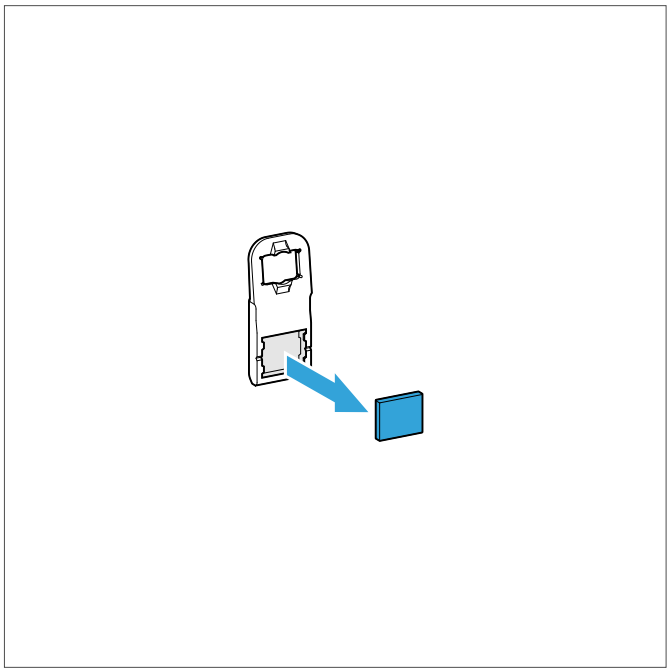
Use the sensor and the loose magnet for window sashes with milled striker plates.



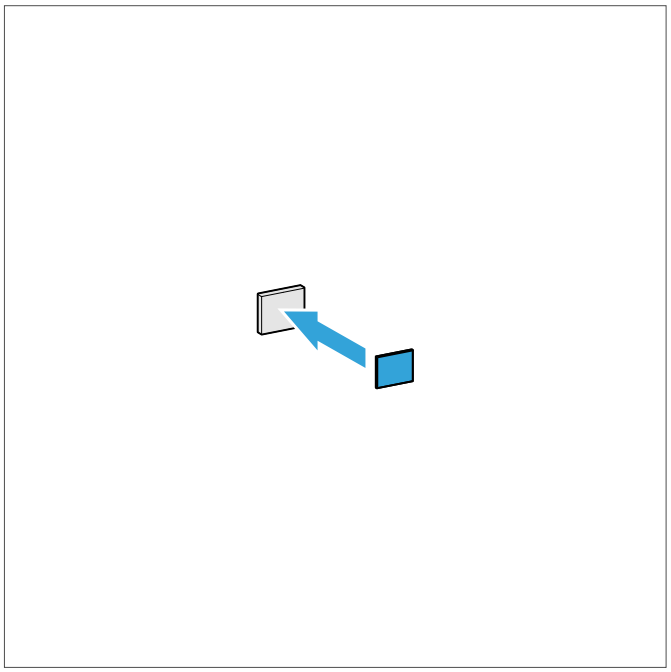
1. Clean the window sash and the frame at the installation position. The installation position must be dry, dust-free and grease-free.



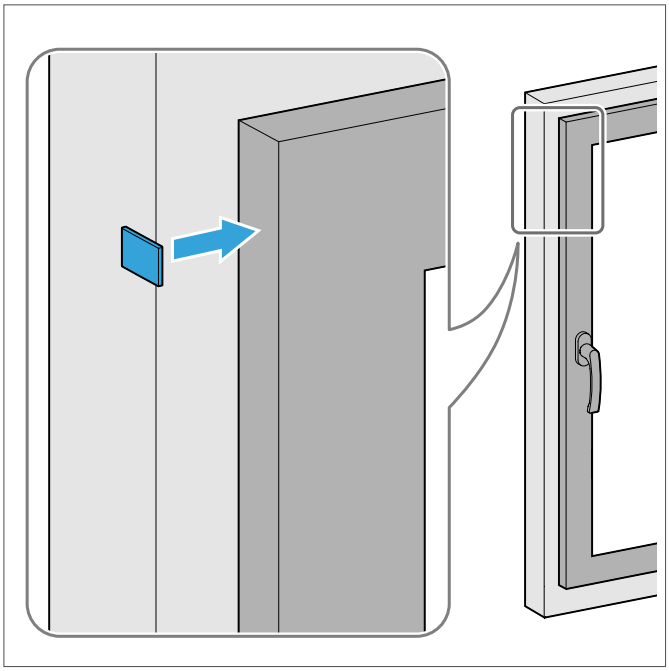
2. Remove the magnet from the slider.



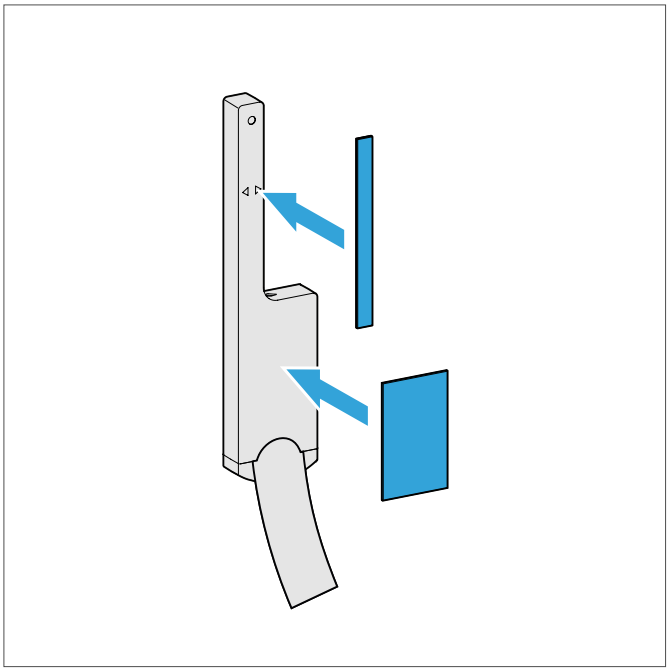
3. Glue the magnet adhesive pad to the magnet and press for at least 5 seconds.



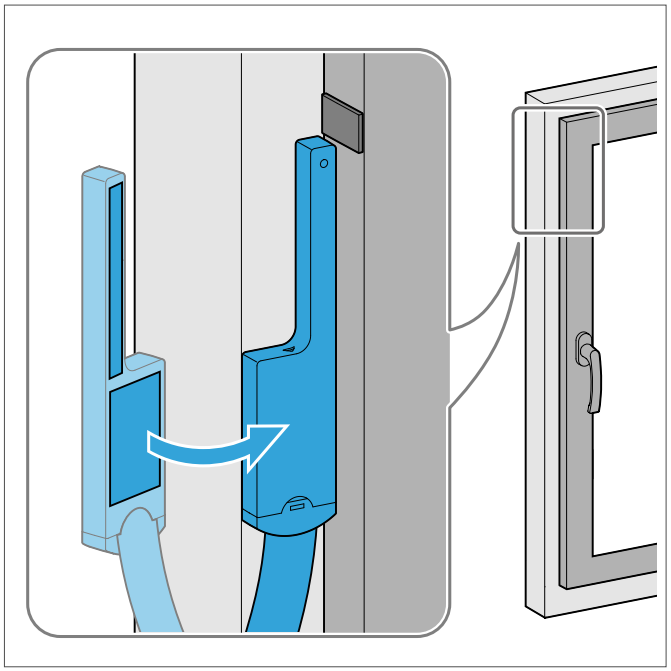
4. Glue the magnet laterally to the window sash and press for at least 5 seconds.



5. Glue the sensor adhesive pad to the sensor and press for at least 5 seconds.



6. With closed window sash, glue the sensor directly under the magnet to the frame and press for at least 5 seconds.



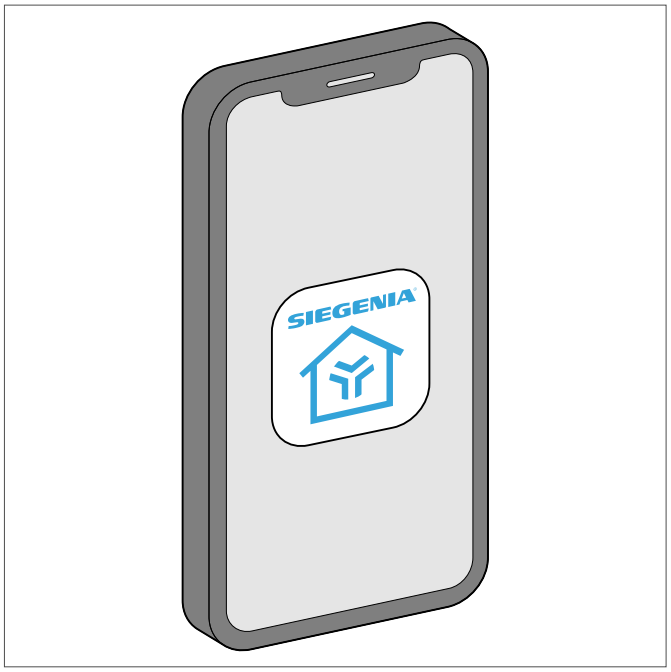
5 Commissioning

5.1 Teach sensor in SIEGENIA HomeConnect app

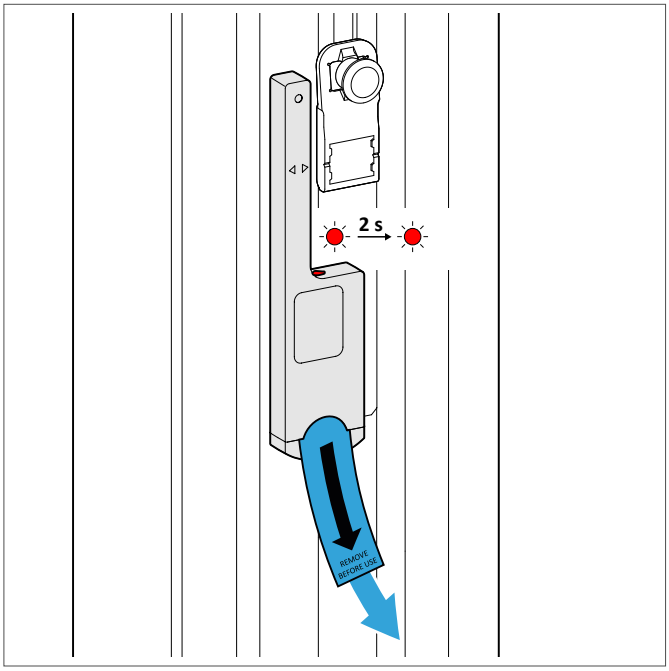
Prerequisites

- The sensor is installed and is in the default state. If the sensor has already been taught in, then carry out a factory reset (see page 31) first.
- A compatible home controller is taught in (see compatibility list).
- A smartphone with a compatible operating system version is available (see compatibility list).
- The wireless connection is free of interferences.

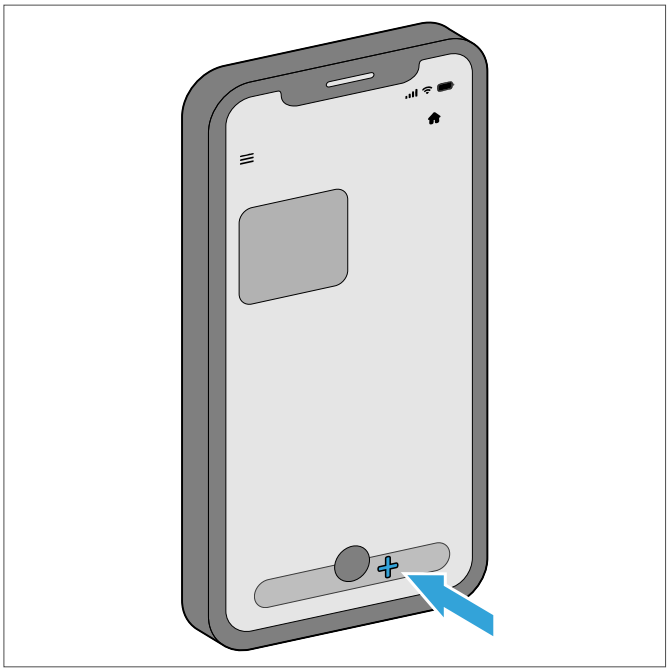
1. Install the SIEGENIA HomeConnect app on the smartphone.



2. Pull the battery protector out of the battery compartment.



3. Open the HomeConnect app and add a new device.



4. Scan the QR code and follow the instructions on the screen.

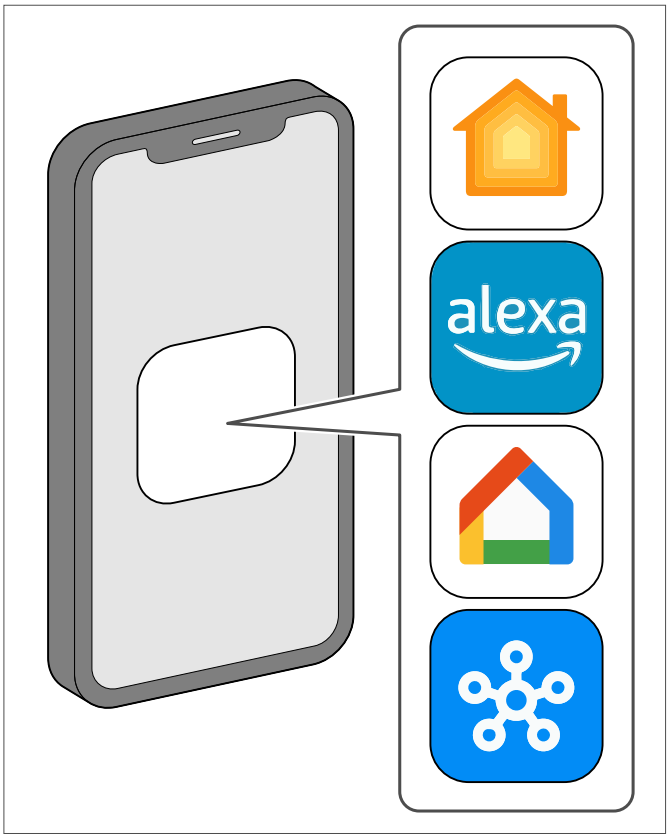


5.2 Teaching in the sensor in the Smart Home app

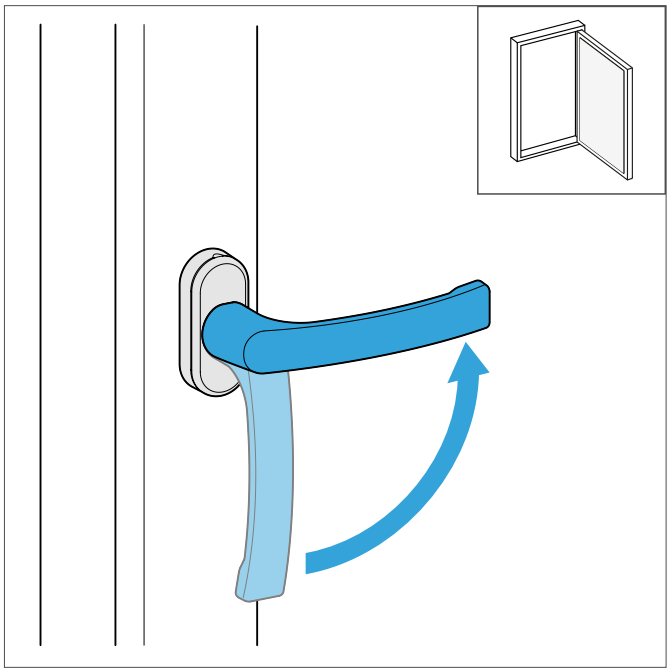
Prerequisites

- The sensor is installed and is in the default state. If the sensor has already been taught in, then carry out a factory reset (see page 31) first.
- A compatible home controller is taught in (see Compatibility list).
- A smartphone with a compatible operating system version is available (see Compatibility list).
- A compatible Smart Home app is installed on the smartphone (see information from the producer of the Home Controller).
- The wireless connection is free of interferences.

1. Open the SIEGENIA Comfort app on the smartphone.



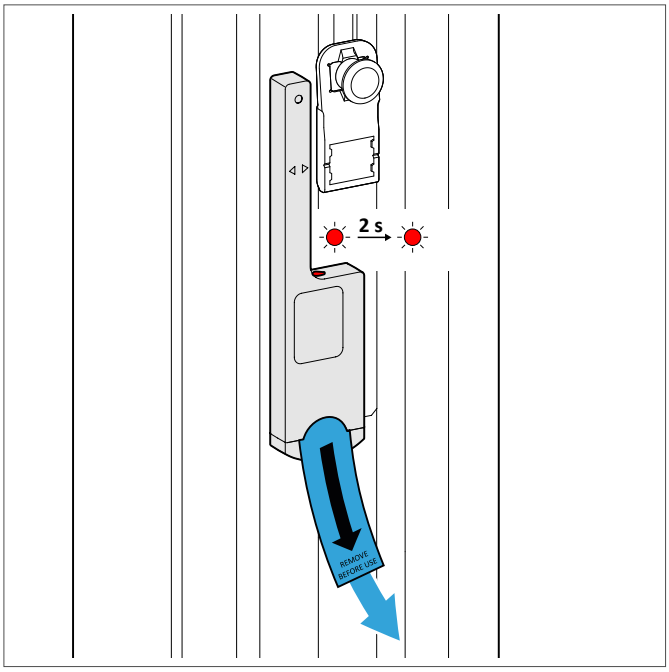
2. Open the window.



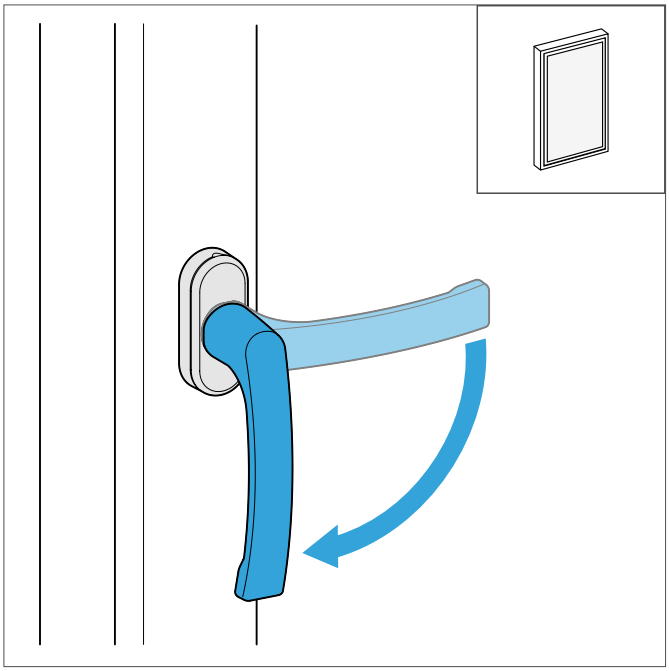
3. Scan the QR code and follow the instructions on the screen.



4. Pull the battery protector out of the battery compartment.



5. Close the window within 30 s and move the window handle into the locking position.



→ The status of the sensor is displayed as "connected" in the Smart Home app.

6 Care and maintenance

6.1 Notes on cleaning and maintenance

NOTICE

Material damage due to water in the device

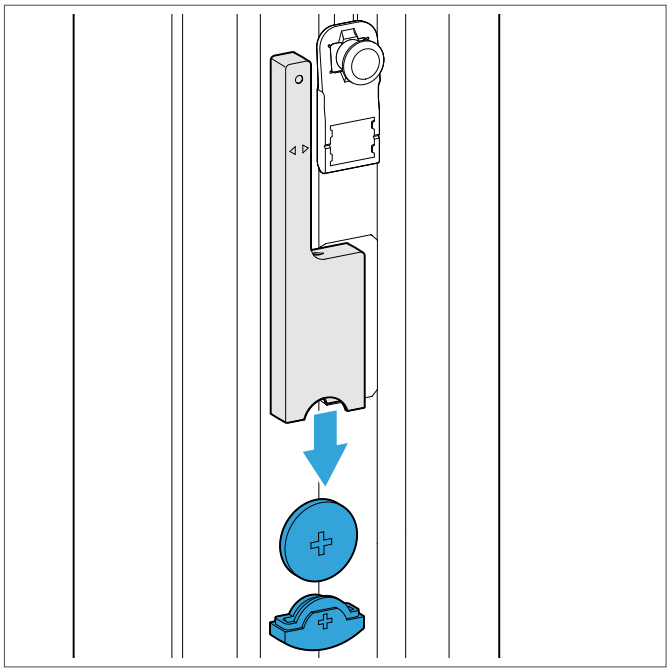
Water inside the device can lead to damage of the device.

- Never clean the device with a high-pressure cleaner or steam-jet cleaner.

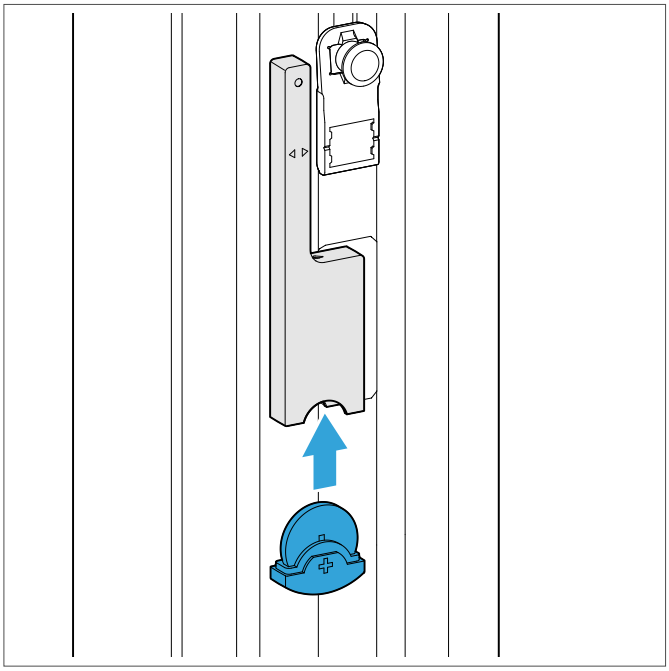
◊ Clean the device using a damp cloth and a mild soap solution or washing-up liquid.

6.2 Replace battery

1. Pull the battery compartment down and remove.



2. Insert the new battery into the battery compartment and push into the sensor.



7 Troubleshooting

7.1 Contact to producer

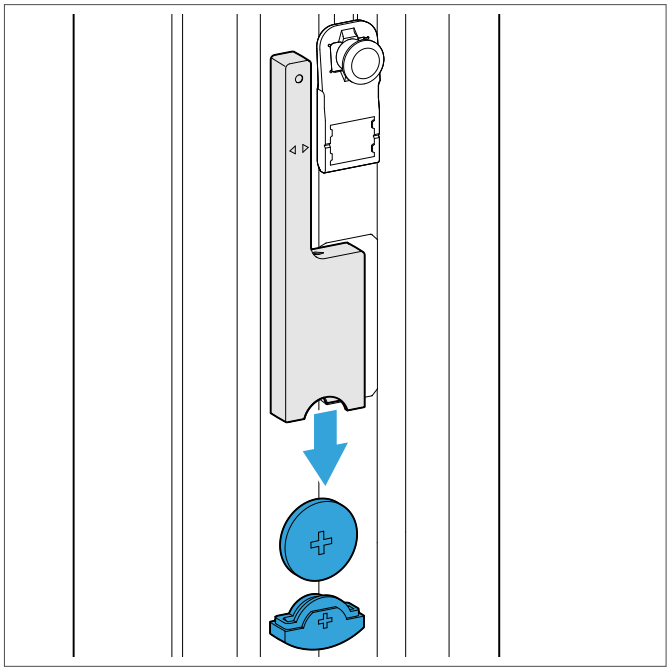
◊ If the following information does not describe the error, then contact the producer: https://link.si/td/service001/0324

7.2 Troubleshooting

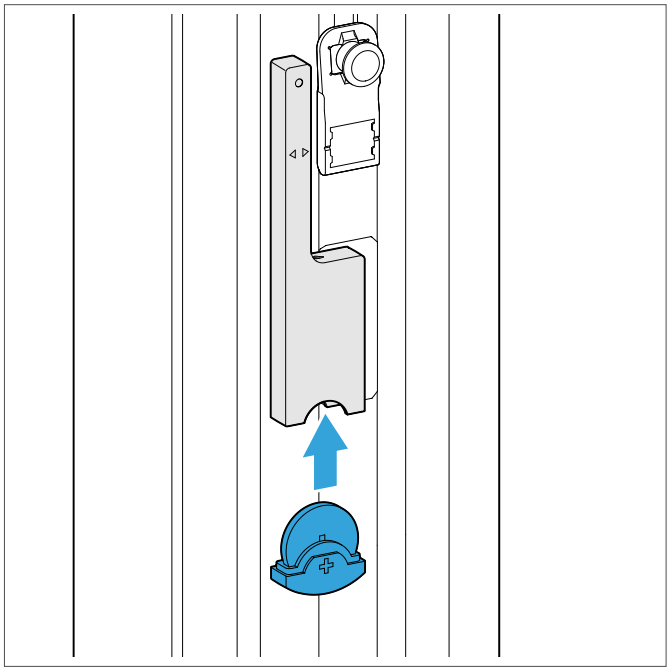
Problem	Possible cause	Solution
The sensor does not flash after the calibration.	The sensor has been erroneously calibrated.	• Perform a factory reset (see page 31) • Repeat the initial setup (see page 25)
The window handle is not detected when teaching in.	There is interference in the wireless signal	• Remove the sources of interference • Check the distance from the nearest Thread repeater and if necessary decrease the distance • Check the distance from the home controller and if necessary decrease the distance • Check for faults with individual devices in the smart home network and if necessary restart devices
The window handle reports the wrong status	The batteries are flat.	• Change the batteries (see page 28)
	There is interference in the wireless signal.	• Remove the sources of interference • Check the distance from the nearest Thread repeater and if necessary decrease the distance • Check the distance from the home controller and if necessary decrease the distance • Check for faults with individual devices in the smart home network and if necessary restart devices
	The sensor has been erroneously calibrated.	• Performing manual calibration (see page 30)
	The sensor has been erroneously calibrated again.	• Perform a factory reset (see page 31) • Delete the sensor from the app • Repeat the initial setup (see page 25)
	The sensor was previously installed in another window.	• Perform a factory reset (see page 31) • Delete the sensor from the app • Repeat the initial setup (see page 25)
Message in the app: "Sensor not accessible"	There is interference in the wireless signal.	• Remove the sources of interference • Check the distance from the nearest Thread repeater and if necessary decrease the distance • Check the distance from the home controller and if necessary decrease the distance • Check for faults with individual devices in the smart home network and if necessary restart devices
	The window handle has been reset to the factory settings.	• Delete the sensor from the app • Repeat the initial setup (see page 25)
In event of pre-mounted supporting piece: the sensor cannot be calibrated	The necessary magnetic cam on the window sash is seated in the wrong position.	• Check position of magnetic cam (see page 32)
	The necessary magnetic cam on the window sash has not been mounted.	

7.3 Performing manual calibration

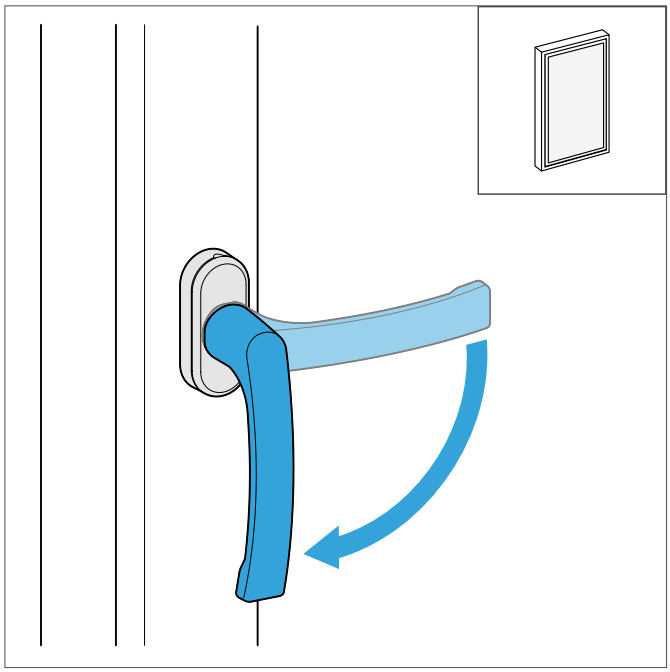
1. Pull the battery compartment down and remove.



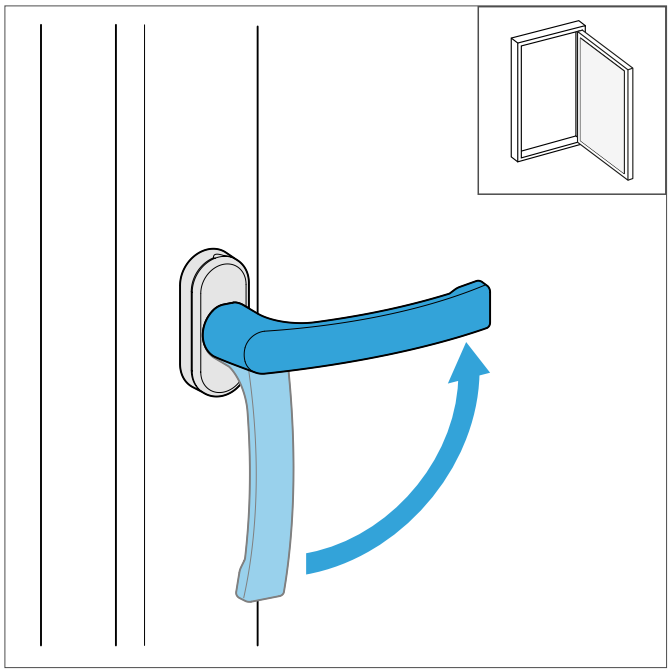
2. Insert the batteries into the battery compartment and push into the sensor.



3. Close the window, move the window handle into the locking position and wait 3-4 s.



4. Move the window handle to the turning position and open the window.

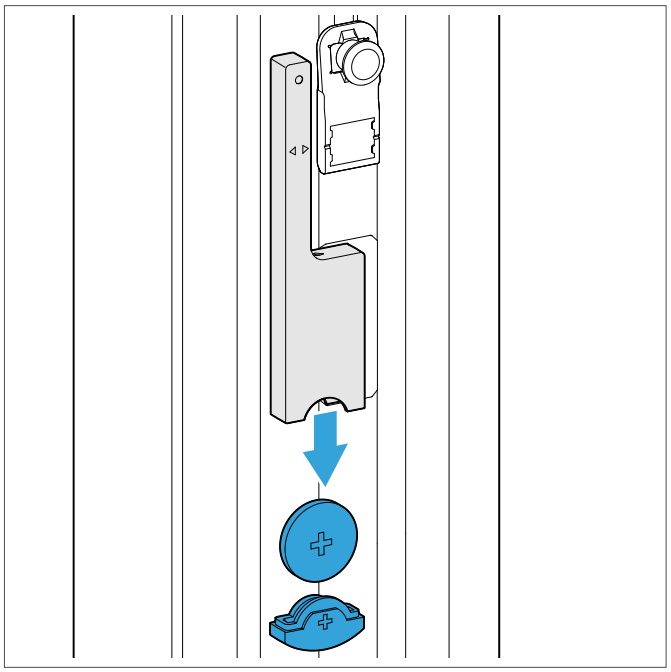


→ The status LED flashes 5x, pauses briefly and flashes again 5x.

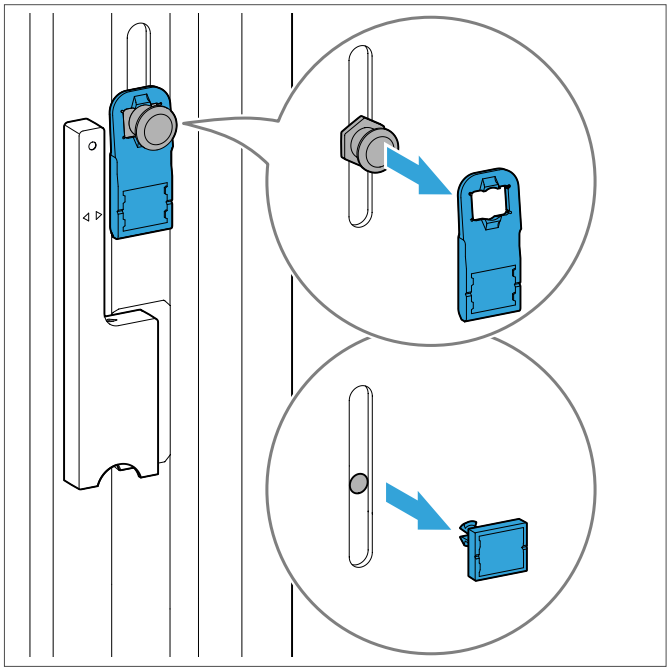
→ The opening status of the sensor is displayed in the Smart Home app.

7.4 Perform a factory reset

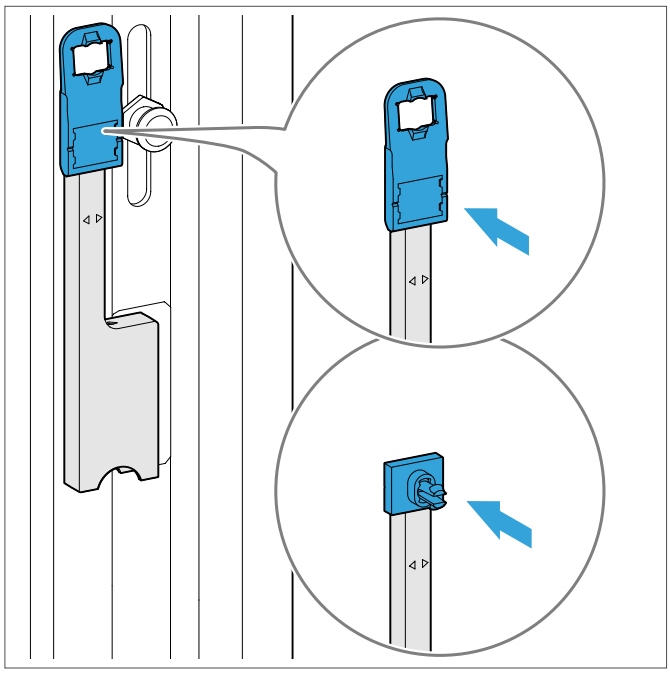
1. Pull the battery compartment down and remove.



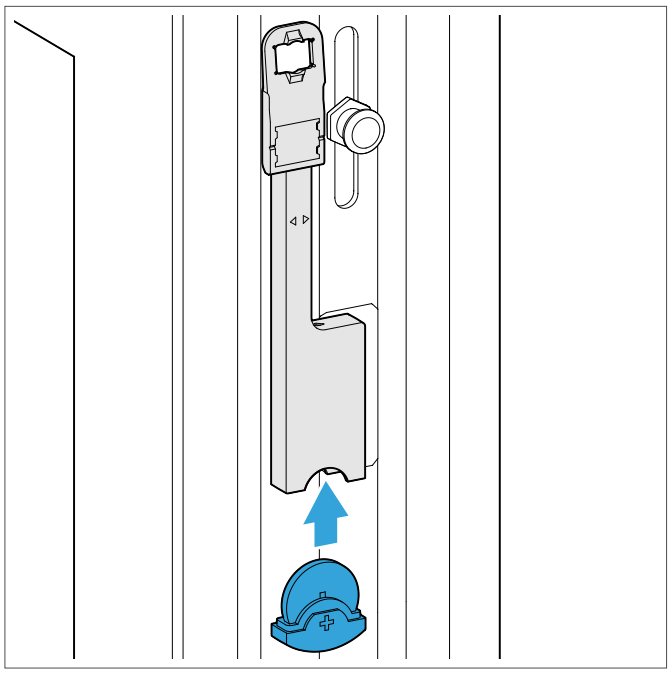
2. Remove the slider or the spigot from the window sash.



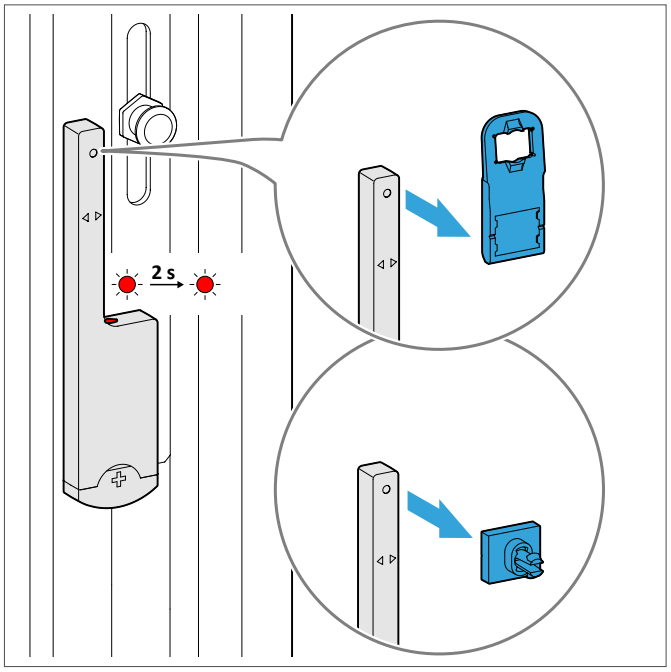
3. Hold the slider or the spigot at the marking to the locking position.



4. Insert the batteries into the battery compartment and push into the sensor.



5. The status LED lights up 2 x. Remove the magnet while the status LED lights up the 2. time.



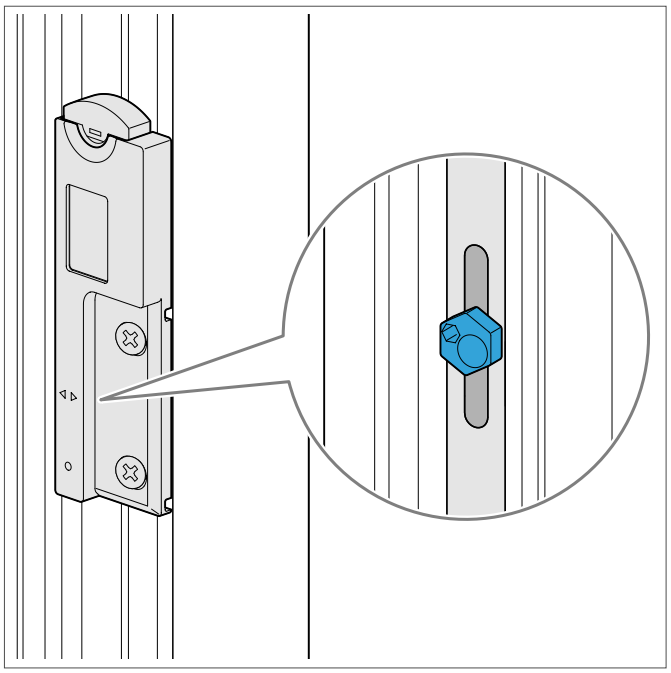
→ The status LED flashes several times.

→ The sensor handle has been reset to the factory settings.

→ The status LED flashes green and the window handle can be taught in again within 10 minutes. (see page 25).

7.5 Check position of magnetic cam

1. Check whether a magnetic cam has been installed in the window sash. The magnetic cam must be seated at the height of the marking when the window is opened.



2. If a magnetic cam exists and is seated in the right position, exclude further faults. (see page 29)
3. If there is no magnetic cam or if the magnetic cam is seated in the wrong position, contact the window producer.

8 Compliance

8.1 EU declaration of conformity

We, the producer, hereby declare that our product complies with the following directives.

Producer	**Product**	
SIEGENIA-AUBI KG Industriestraße 1 – 3 57234 Wilnsdorf	Device type:	Type designation:
	Smart sensor	Smart Sensor

Directives		**Harmonised standards**
EMC Directive	2014/30/EU	ETSI EN 301 489-1 V2.2.3 (2019-11)
Low Voltage Directive	2014/35/EU	ETSI EN 300 328 v2.2.2 (2019-07)
RED Directive	2014/53/EU	IEC 62368-1:2018 UNE-EN 62368-1:2014 + AC1:2015 + AC2:2015 + AC:2017 + A11:2017 EN 62368-1:2014 + AC:2015 + AC:2017 + A11:2017 IEC 62368-1:2014 + COR1:2015 + COR2:2015

Underlying test reports: DEKRA Testing and Certification, S.A.U. - 75322RRF001s; 75322RSE.001; 75322RSE.002; 75769RSE.001; 75322REM.001s



Wilnsdorf, 2023-12-05 Tim Opfer
(Group Development Leader)

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