

# Operating instructions



# Door and window contact

#### **AMC 10**

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# **About these operating instructions**



### 1 About these operating instructions

These operating instructions describe the door and window contact "AMC 10" (also referred to as "product" in these operating instructions).

- You may only use the product if you have fully read and understood these operating instructions.
- Verify that these operating instructions are always accessible for any type
  of work performed on or with the product.
- Pass these operating instructions as well as all other product-related documents on to all owners of the product.
- If you feel that these operating instructions contain errors, inconsistencies, ambiguities or other issues, contact the manufacturer prior to using the product.

There operating instructions are protected by copyright and may only be used as provided for by the corresponding copyright legislation. We reserve the right to modifications.

The manufacturer shall not be liable in any form whatsoever for direct or consequential damage resulting from failure to observe these operating instructions or from failure to comply with directives, regulations and standards and any other statutory requirements applicable at the installation site of the product



# Information on safety



## 2 Information on safety

### 2.1 Safety messages and hazard categories

These operating instructions contain safety messages to alert you to potential hazards and risks. In addition to the instructions provided in these operating instructions, you must comply with all directives, standards and safety regulations applicable at the installation site of the product. Verify that you are familiar with all directives, standards and safety regulations and ensure compliance with them prior to using the product.

Safety messages in these operating instructions are highlighted with warning symbols and warning words. Depending on the severity of a hazard, the safety messages are classified according to different hazard categories.

# **NOTICE**

NOTICE indicates a hazardous situation, which, if not avoided, can result in equipment damage.

# Information on safety



#### 2.2 Intended use

This product may only be used to monitor the state of doors and windows in indoor rooms.

Any use other than the application explicitly permitted in these operating instructions is not permitted and causes hazards.

Verify that the product is suitable for the application planned by you prior to using the product. In doing so, take into account at least the following:

- All directives, standards and safety regulations applicable at the installation site of the product
- All conditions and data specified for the product
- The conditions of the planned application

In addition, perform a risk assessment in view of the planned application, according to an approved risk assessment method, and implement the appropriate safety measures, based on the results of the risk assessment. Take into account the consequences of installing or integrating the product into a system or a plant.

When using the product, perform all work and all other activities in conjunction with the product in compliance with the conditions specified in the operating instructions and on the nameplate, as well as with all directives, standards and safety regulations applicable at the installation site of the product

#### 2.3 Predictable incorrect application

The product must never be used in the following cases and for the following purposes:

 In conjunction with products which are used for health-saving or lifesaving purposes or whose operation may incur hazards to humans, animals or property.



# Information on safety



# 2.4 Qualification of personnel

Only persons who are familiar with and understand the contents of these operating instructions and all other pertinent product documentation are authorized to work on and with this product.

#### 2.5 Personal protective equipment.

Always wear the required personal protective equipment. When performing work on and with the product, take into account that hazards may be present at the installation site which do not directly result from the product itself.

#### 2.6 Modifications to the product

Only perform work on and with the product which is explicitly described in these operating instructions. Do not make any modifications to the product which are not described in these operating instructions.



# **Transport and storage**



# 3 Transport and storage

The product may be damaged as a result of improper transport or storage.

# **NOTICE**

#### DAMAGE TO THE PRODUCT

- Verify compliance with the specified ambient conditions during transport or storage of the product.
- Use the original packaging when transporting the product.
- Store the product in a clean and dry environment.
- Verify that the product is protected against shocks and impact during transport and storage.

Failure to follow these instructions can result in equipment damage.

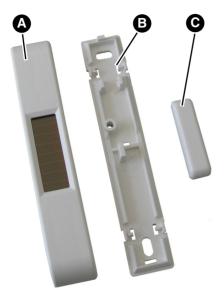


# **Product description**



# 4 Product description

#### 4.1 Overview



- A. Door and window contact
- B. Holding plate
- C. Magnet

#### 4.2 Dimensions

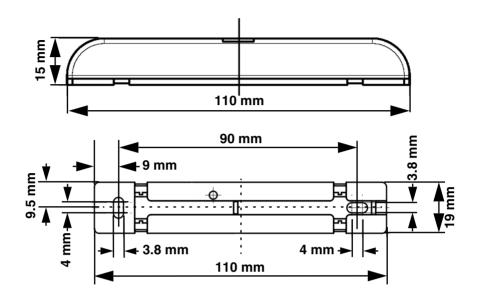


Abbildung 1: Dimensions door and window contact

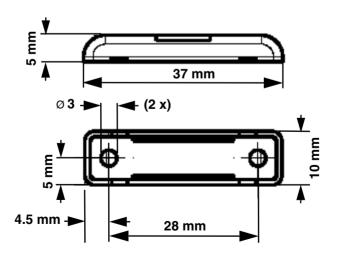


Abbildung 2: Dimensions magnet



# **Product description**



#### 4.3 Function

The battery-less product used to monitor the state of doors and windows. The product is wireless, maintenance-free and operates with an internal, solar energy storage module.

Operation over several days in darkness is possible.

When a door or a window is opened or closed, a signal is transmitted. The signal is triggered via a magnet.

The product can be mounted to all types of frames so that retrofitting of door and window contacts is possible.

#### 4.4 Technical specifications

Parameter	Value	
	value	
General specifications		
Door and window contact Dimensions (L x W x H)	110 x 19 x 15 mm	
Magnet dimensions (L x W x H)	37 x 10 x 5 mm	
Colour	White, similar to RAL 9003	
Supply voltage	Solar-operated energy storage module	
Ambient temperature	-20/+60 °C	
Degree of protection	IP 40	
Material	PC/ABS	
EnOcean® wireless		
Frequency	868.3 MHz	
Transmission power	Max. 10 mW	
Transmission cycle	2.5 minutes	
Range	See chapter "Information on EnOcean® wireless"	
EnOcean® Equipment Profile (EEP)	D5-00-01	

# Mounting



# 5 Mounting

⇒ If you intend to mount multiple products, start by creating a mounting plan
with the appropriate mounting locations. Then label the products with
numbers or the corresponding mounting location to help avoid confusion
of mounting locations.

#### 5.1 Preparing mounting

- ⇒ Prior to mounting, verify that the solar-operated energy storage module has been charged.
  - Regular daylight is sufficient for charging the energy storage module.
  - Exposure to direct sunlight reduces the charging time.
- ⇒ Verify that the product is only used in rooms and not outdoors.
- ⇒ Do not mount the product in a metal housing or in the immediate vicinity of metal objects.
- ⇒ Do not mount the product close to the floor or on the floor.

#### 5.2 Mounting the product

#### 5.2.1 Mounting by glueing

- ⇒Do not mount the magnet more than 5 mm away from the magnetic contact of the door and window contact to the door or window frame.
- ⇒Only use the adhesive strips on even, flat and smooth surfaces (for example, window frame).
- ⇒Mark the mounting position at the desired mounting point before starting to mount the product.
- 1. Remove the film from the adhesive strips and fasten the holding plate and the magnet at the desired position.

# Mounting



# 5.2.2 Mounting by screwing

- ⇒ Do not mount the magnet more than 5 mm away from the magnetic contact of the door and window contact to the door or window frame.
- ⇒Mark the mounting position at the desired mounting point before starting to mount the product.
- 1. Remove the product from the holding plate.
- 2. Mark the drilling holes using the holding plate and the magnet as templates.
- 3. Drill the holes.
- 4. Fasten the holding plate and the magnet using suitable screws and then snap the product onto the holding plate.



# Commissioning



#### 6 Commissioning

The product is delivered ready for operation. After an extended storage period of the door and window contact the solar-operated energy storage module must first be charged. Usually, this is done automatically during the first hours of operation in daylight.

The product features a solar-operated energy storage module . Therefore, the product is maintenance-free and environmentally friendly. The minimum illuminance for continuous operation should not be less than 100 lx on a daily average.

Illuminance of 100 lx for a period of 2 to 3 hours allows the product to operate for 14 hours in darkness.

Higher illuminance reduces the required duration. If the energy storage module is fully charged, the product can operate for approximately 50 hours in darkness.

#### 6.1 Teaching in

- ⇒ Verify that the product is in the vicinity of the AFRISOhome gateway.
- ⇒ Verify that the AFRISOhome gateway is in "Learn" mode. See the operating instructions of the AFRISOhome gateway for information detailed information.
- ⇒ If you intend to mount multiple products, start by creating a mounting plan
  with the appropriate mounting locations. Then label the products with
  numbers or the corresponding mounting location to help avoid confusion
  of mounting locations.



 Press the programming button "LRN" once to teach in or delete the product.



# **Troubleshooting**



# 7 Troubleshooting

Any malfunctions that cannot be removed by means of the measures described in this chapter may only be repaired by the manufacturer.

Problem	Possible reason	Repair
No signal	Environment of the product has changed.	Check the environment of the product for chan- ges/interference (metal cabinets, furniture/walls repositioned)
	Incorrect mounting position	Check the mounting position
Reduced range of the wireless signals	Metal objects or materials containing metal in the vicinity	Keep a minimum distance of 10 cm
	Humidity in the materials	Check the materials for humidity
	Other equipment emitting high-frequency signals are in the vicinity (for example, audio/video equipment, computers)	Keep a minimum distance of 0.5 m
Energy storage module is discharged	Insufficient light	Ensure proper illumi- nance
Other malfunctions	-	Contact the AFRISO service hotline





#### 8 Maintenance

The product is maintenance-free.

#### 9 Troubleshooting

Any malfunctions that cannot be removed by means of the measures described in this chapter may only be repaired by the manufacturer.

# 10 Decommissioning, disposal

Dispose of the product in compliance with all applicable directives, standards and safety regulations.

Electronic components must not be disposed of together with the normal household waste.



- 1. Dismount the product (see chapter "Mounting", reverse sequence of steps).
- 2. Dispose of the product.

#### 11 Returning the device

Get in touch with us before returning your product.

# 12 Warranty

See our terms and conditions at www.afriso.com or your purchase contract for information on warranty.

# 13 Spare parts and accessories

#### **Product**

Product designation	Part no.	Figure
Door and window contact "AMC 10"	78968	A A

#### Information on EnOcean® wireless



#### 14 Information on EnOcean® wireless

#### 14.1 Range of EnOcean® wireless

Visit www.enocean.com for further information on range planning with EnOcean®.

#### 14.2 Additional information on EnOcean® wireless systems

Additional information on planning, installation and operation of EnOcean® wireless systems can be found at www.enocean.com.

#### 14.3 Features of the EnOcean® technology

Visit www.afriso.de/afrisolab for documents on EnOcean® technologies.

A variety of videos on AFRISO products can also be found on the AFRISO YouTube channel.

