

Operating instructions



Conductivity water sensor

WaterSensor con

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1 About these operating instructions

These operating instructions describe the conductivity operating instructions "WaterSensor con" (also referred to as "product" in these operating instructions). These operating instructions are part of the product.

- 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.

These 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.

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.



CAUTION

CAUTION indicates a hazardous situation, which, if not avoided, can result in injury or equipment damage.

NOTICE

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

In addition, the following symbols are used in these operating instructions:



This is the general safety alert symbol. It alerts to injury hazards or equipment damage. Comply with all safety instructions in conjunction with this symbol to help avoid possible death, injury or equipment damage.

2.2 Intended use

This product may only be used for detecting water and measuring the ambient temperature.

The product detects the presence/absence of water, measures the ambient temperature and sends corresponding EnOcean® wireless telegrams to the AFRISOhome gate-way.

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:

- Hazardous area (EX)
 - If the product is operated in hazardous areas, sparks may cause deflagrations, fires or explosions.
- Use with liquids other than water
- In conjunction with products which are used for health-saving or life-saving purposes or whose operation may incur hazards to humans, animals or property.

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.

3 Transport and storage

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

NOTICE

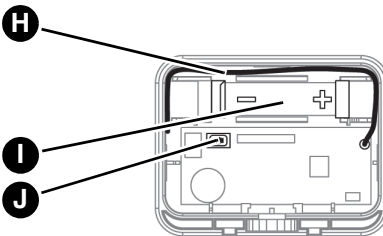
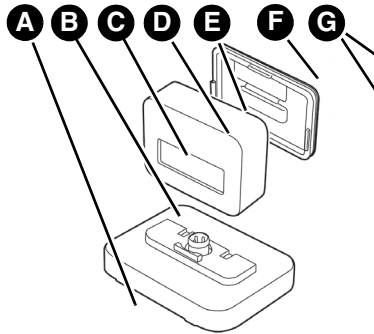
INCORRECT HANDLING

- 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.

4 Product description

4.1 Overview



- A. Floor water probe
- B. Solar cells
- C. Housing
- D. Cover
- E. Seal
- F. Holder
- G. Adhesive dots
- H. Antenna
- I. Battery compartment
- J. LRN pushbutton

4.2 Dimensions

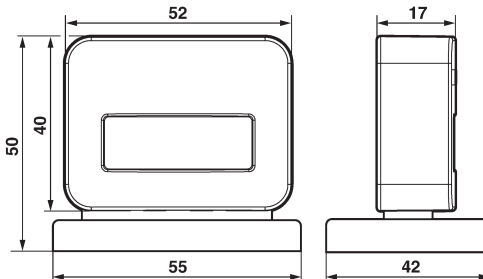


Fig. 1: Dimensions in mm

4.3 Function

The product consists of a universal wireless transmitter "FTM" and a floor water probe. The product cyclically transmits the ambient temperature and the state of the connected probe (presence/absence of water) via EnOcean® wireless and also when the state changes.

A solar cell generates the required energy. A battery can be used for use in darker environments. Each product has a unique ID. If multiple products are used, the recipient can distinguish the individual products.

4.4 Approvals, conformities, certifications

The product complies with:

- EMC Directive (2014/30/EU)
- Radio Equipment Directive, RED (2014/53/EU)
- Low Voltage Directive (2014/35/EU)
- RoHS Directive (2011/65/EU)

4.5 Technical specifications

Parameter	Value
General specifications	
Dimensions (W x H x D)	55 x 50 x 42 mm
Weight	47 g
Housing material	PC
Colour	White, similar to RAL 9003
Measuring range	Temperature: 0 ... 40 °C
Accuracy	Temperature: ±1K
Operating temperature range	
Ambient	0 ... 40 °C
Storage	-20 ... 60 °C
Medium	0 ... 60 °C
Max. humidity	Non-condensing
Supply voltage	
Via solar cell	Energy harvesting
Via lithium battery	½ AA DC 3.6 V
Electrical safety	
Protection class	III (EN 60730-1; SELV)
Degree of protection	IP 54 (EN 60529)
Electromagnetic compatibility (EMC) (2014/30/EU)	
Low Voltage Directive (2014/35/EU)	
Radio Equipment Directive, RED (2014/53/EU)	
EnOcean® wireless	
Frequency	868.3 MHz
Transmission power	Max. 10 mW
Range	See chapter "Information on EnOcean® wireless"
EnOcean® Equipment Profile (EEP)	A5-30-03

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.

5.2 Mounting the product



CAUTION

WRONG PRODUCT POSITIONING

Only place the product on floor spaces that persons cannot enter.

Failure to follow these instructions can result in injury or equipment damage.

- ⇒ 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.
1. Use a battery in darker environments.
 2. Position the product as close as possible to a location where water may leak.
 3. Take into account the gradient of the floor and the possible direction of flow of the leaking water.
 4. Remove water absorbing materials on the floor, for example carpets.

5.3 Inserting/connecting the battery

1. Remove the product from the floor water probe.
2. Lift the cover using a screwdriver and remove the cover.
3. Fit the lithium battery type 1/2AA. Verify correct polarity.
4. Refit the cover.
5. Refit the product onto the floor water probe.

6 Commissioning

6.1 Teaching in

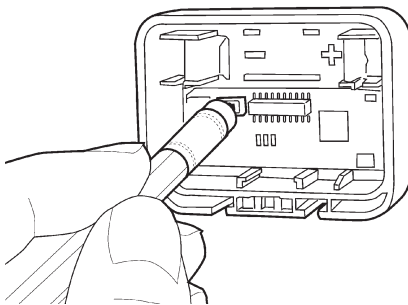
- ⇒ Verify that the product is in the vicinity of the AFRISOhome gateway.
- ⇒ Verify that the AFRISOhome gateway is in "Learn" mode. See the operating instructions of the AFRISOhome gateway for information detailed information.
- ⇒ If you intend to mount multiple products, start by creating a mounting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

NOTICE

ELECTROSTATIC DISCHARGE

- Always earth yourself before touching electronic components.
- If you press down the LRN pushbutton with a finger, make sure to avoid electrostatic discharge.

Failure to follow these instructions can result in equipment damage.



1. Remove the product from the floor water probe.
2. Lift the cover using a screwdriver and remove the cover. Make sure not to damage the seal.
3. Press the LRN pushbutton of the product with an object that is not pointed and not conductive.
 - The product sends a Learn telegram (LRNTEL) to the AFRISOhome gateway.
 - The product is now connected to the AFRISOhome gateway.
4. Refit the cover.
5. Refit the product onto the floor water probe.

6.2 Function test

- ⇒ Verify that the product is connected to the AFRISOhome gateway.
- ⇒ Verify that the product is in the vicinity of the AFRISOhome gateway.
- 1. Touch the bottom of the product with a wet finger.
 - The product sends a signal to the AFRISOhome gateway.
- 2. Check whether the AFRISOhome gateway has received the signal.

7 Maintenance

The product is maintenance-free.

8 Troubleshooting

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

9 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 the product", reverse sequence of steps).
2. Dispose of the product.



1. Dispose of the product and of the battery (optional) separately.

10 Returning the device

Get in touch with us before returning your product(service@afriso.de).

11 Warranty

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

12 Spare parts and accessories

NOTICE

DAMAGE DUE TO UNSUITABLE PARTS

- Only use genuine spare parts and accessories provided by the manufacturer.

Failure to follow these instructions can result in equipment damage.

Product

Product designation	Part no.	Figure
Conductivity water sensor "WaterSensor con"	78146	

Spare parts and accessories

Product designation	Part no.	Figure
Lithium battery ½ AA	78100	-
Holder	09 01 000303	
Floor water probe BWS con	78142	-
Universal wireless transmitter "FTM"	78143	
Extension cable 3-pole, 2 m	78141	-

13 Information on EnOcean® wireless

13.1 Range of EnOcean® wireless

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

13.2 Additional information on EnOcean® wireless systems

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

- Wireless standard
- Wireless technology
- AN001
- AN102
- AN103
- AN201

13.3 Features of the EnOcean® technology

Visit www.afrisohome.de for documents on EnOcean® technologies.

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