



Operating instructions



Room temperature sensor (wireless)

Product family CosiTherm®

Type: FT
Type: FTF

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reddot award 2014
winner

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1 About these operating instructions

These operating instructions describe the room temperature sensor "FT / FTF" (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.

NOTICE

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

2.2 Intended use

The room temperature sensor is a part of CosiTherm®. This product may only be used to control the room temperature (heat/cool) of individual rooms with underfloor heating system.

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.
- In conjunction with devices 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 appropriately trained 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.

These persons must have sufficient technical training, knowledge and experience and be able to foresee and detect potential hazards that may be caused by using the product.

All persons working on and with the product must be fully familiar with all directives, standards and safety regulations that must be observed for performing such work.

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.

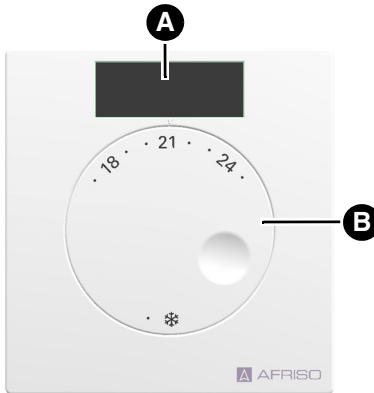
4 Product description

The product is a part of CosiTherm® or of the AFRISOhome gateway.

The following products are available for different applications:

- Room temperature sensor "FT" (temperature)
- Room temperature sensor "FTF" (temperature and humidity)

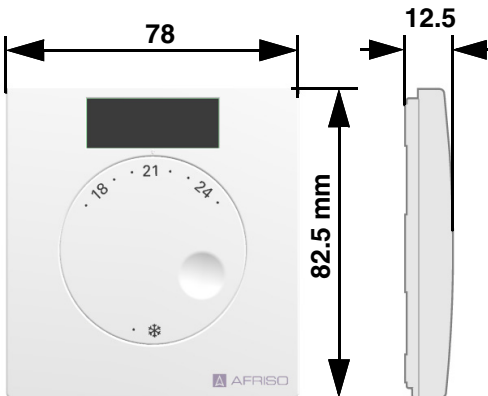
4.1 Overview



A. Solar cell

B. Rotary knob for adjusting the reference temperature

4.2 Dimensions



4.3 Application examples

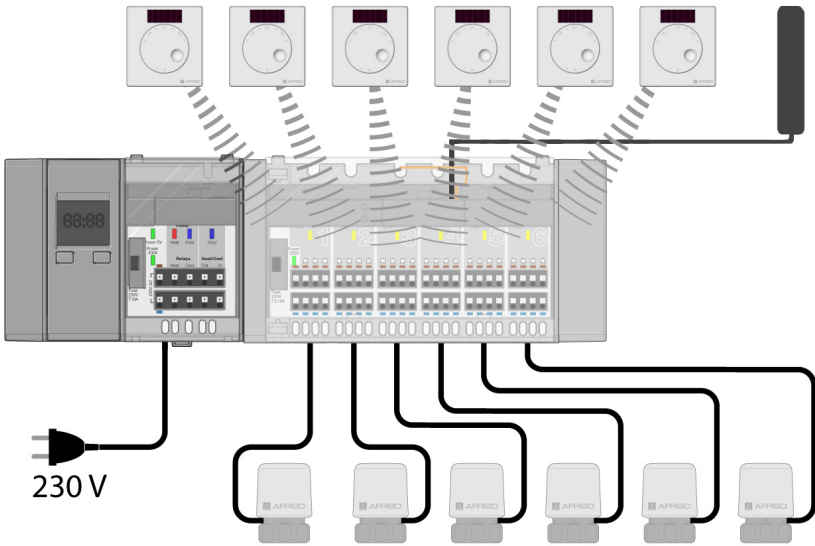


Fig. 1: Base module with controller module, timer module, room temperature sensors, external antenna and actuators

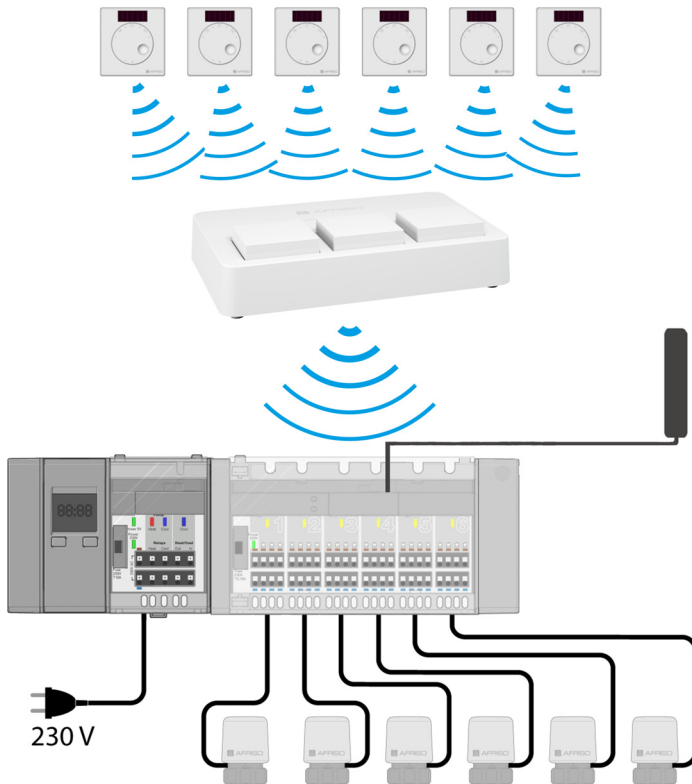


Fig. 2: Base module with controller module F6A, timer module, room temperature sensors, gateway, external antenna and actuators

4.4 Function

CosiTherm® is a single room temperature controller used to control the temperature in rooms with underfloor heating system (heat/cool).

The product is equipped with a solar cell for power supply. If the product is used in dark environments, use an optional battery (refer to "Technical specifications").

The room temperature sensor "FT" measures the actual temperature in the corresponding rooms. The reference temperature is adjusted via the rotary knob of the corresponding product.

The room temperature sensor "FTF" also measures the humidity in the ambient air.

The product sends EnOcean® wireless telegrams for communication with the AFRISOhome gateway or with CosiTherm® controller modules. Each product has a unique ID. If several room products are used, the recipient can distinguish the products.

4.5 Approvals, conformities, certifications

The product complies with:

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

4.6 Technical specifications

Parameter	Value
General specifications	
Dimensions (W x H x D)	78 x 82.5 x 12.5 mm
Weight	43 g
Housing material	PC
Colour	White, similar to RAL 9003
Temperature adjustment range/ temperature measuring range	8 ... 30 °C
Temperature measurement	0 ... 40 °C
Accuracy	±1 K
Ambient conditions	
Ambient temperature operation	-20 ... 60 °C
Ambient temperature storage	-20 ... 60 °C
Max. humidity	90 %, non-condensing
Humidity measurement (room temperature sensor FTF only)	
Measuring range humidity	0 ... 100 % r.h.
Accuracy	±5 % r.h.
Electrical data	
Supply voltage via solar cell	Energy harvesting
Supply voltage via optional battery	Lithium battery 3 V type CR1632
Protection class (EN 60730-1; SELV)	III
Degree of protection (EN 60529)	IP 30

Parameter	Value	
EnOcean® wireless		
Frequency	868.3 MHz	
Transmission power	Maximum 10 mW	
Range	See chapter "Information on EnOcean® wireless"	
EnOcean® Equipment Profile (EEP)	FT	A5-10-03
	FTF	A5-10-12

5 Mounting

5.1 Preparing mounting

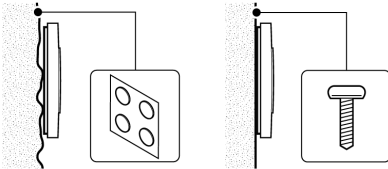
If you want to install several products, create an installation plan with the individual installation sites. Label the individual products according to the installation plan with a number or the designation of the installation.

- ⇒ Verify that all connected devices can be used at the installation site.
- ⇒ Verify that the installation site is not in shielded areas or recesses.
- ⇒ 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 Connecting the product via EnOcean

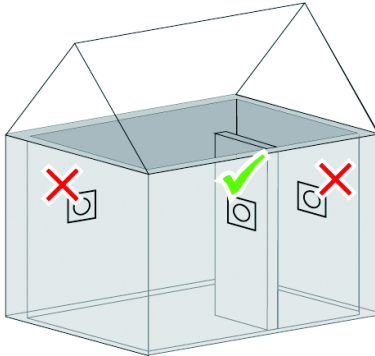
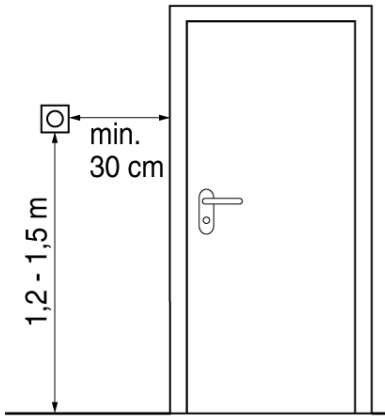
Prior to mounting the product, connect it to the recommended EnOcean components (see chapter "Connecting the product to a controller module").

5.3 Mounting the product



If the wall is uneven, stick the product to the wall using the adhesive dots supplied.

Screw or glue the product to even walls.



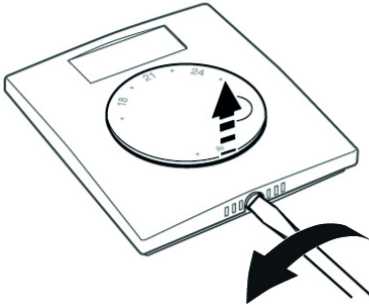
Cold walls and draughts affect temperature measurement.

1. Mount the product to an indoor wall and at an adequate distance from doors and windows.

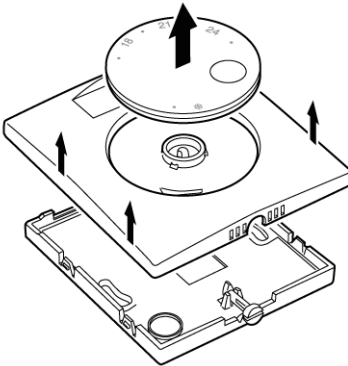
Sticking the product to a wall:

1. Stick the product to the wall using the adhesive dots.

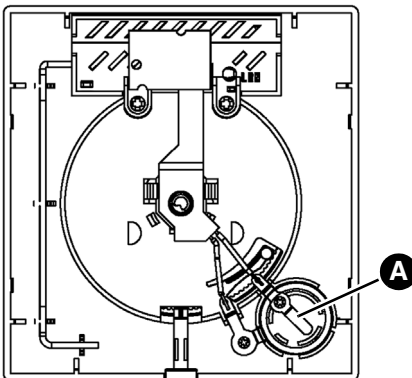
Screwing the product to a wall



1. Turn the cam screw at the bottom of the product approximately 90° using a screwdriver.



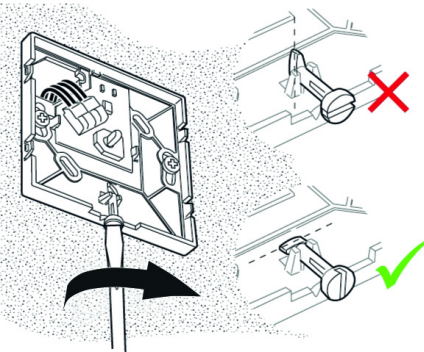
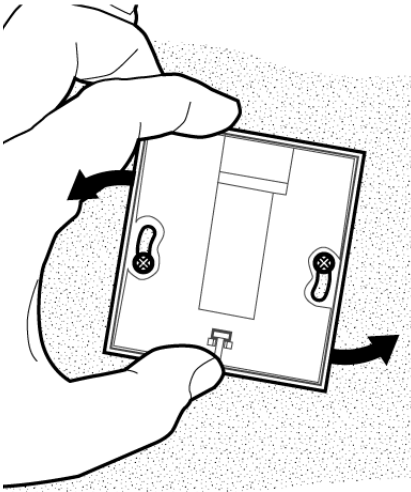
2. Lift the rotary knob and remove it.
3. Remove the upper part of the housing.



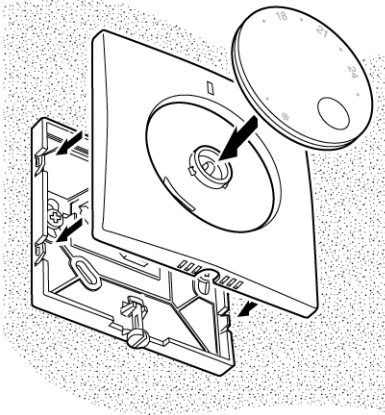
4. Screw the bottom part of the housing to the even wall.

In darker environments:

5. Insert a battery into the battery compartment (A) of the upper part of the housing. See "Inserting a battery (optional)".



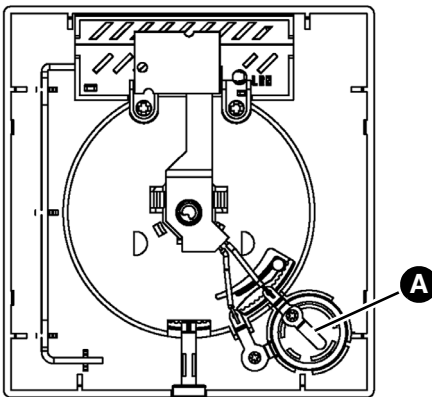
6. Turn the cam screw at the product back to the initial position using a screwdriver.



7. Fit the upper part of the housing and the rotary knob to the bottom part of the housing.
 - Verify correct position with reference to the axis of rotation when inserting the rotary knob.

5.4 Inserting a battery (optional)

In the case of daylight with an illuminance of less than 200 lux, use an optional battery (see "Technical specifications", not included).



1. Remove the rotary knob and the upper part of the housing (see "Mounting the product").
2. Insert the battery into the battery compartment (A) of the upper part of the housing.
 - The plus pole (+) of the battery must be visible after you have inserted the battery.
3. Fit the upper part of the housing and the rotary knob to the bottom part of the housing.

6 Commissioning

6.1 Connecting the product to a controller module

The procedure (with EnOcean wireless) is described in the operating instructions of the "Controller module (wireless)".

- ⇒ Verify that the EnOcean wireless signal of the product reaches the room temperature sensor to be connected and that the room temperature sensor is in the vicinity of the controller module.



1. Press the LRN key of the product with a bent open paper clip for at least 0.5 seconds.

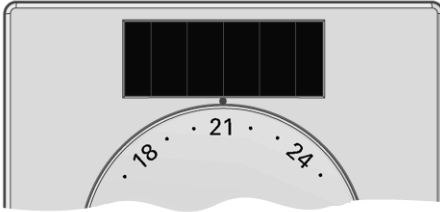
6.2 Function test

Room temperature sensor "FT / FTF"

- ⇒ Verify that the room temperature is between 15 °C and 25 °C.
1. Set the product to be tested to frost protection.
 2. Set the product to be tested to 30 °C.
 - After no more than one minute, the yellow LED lights up at the controller module to which the product is connected.
 3. Verify that the product to be tested is connected to the correct control circuit.
 4. Repeat this procedure for all other products.

7 Operation

7.1 Adjusting the room temperature

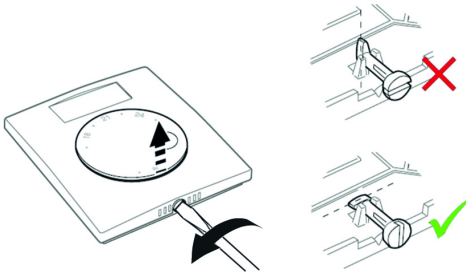


1. Adjust the desired temperature at the product.
 - Without temperature reduction: CosiTherm® controls the room temperature to the adjusted value.
 - With temperature reduction: CosiTherm® controls the room temperature to a value 4 K below the adjusted value.

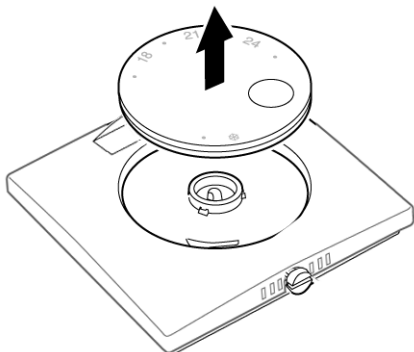
Fig. 3: Adjusted room temperature (example 21 °C)

7.2 Limiting temperature adjustments

The adjustment range of the rotary knob is factory-set to a minimum of 8 °C and a maximum of 30 °C by means of restrictors. The restrictors can be adjusted to modify the minimum and the maximum adjustable temperature.

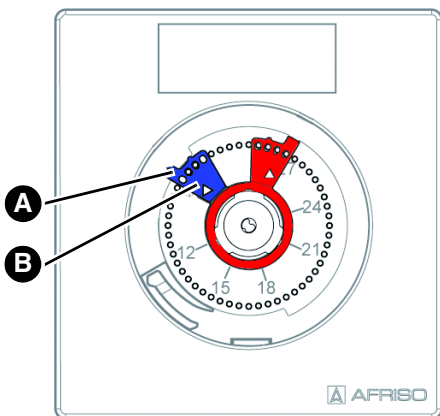


1. Turn the cam screw at the bottom of the product approximately 90° using a screwdriver.



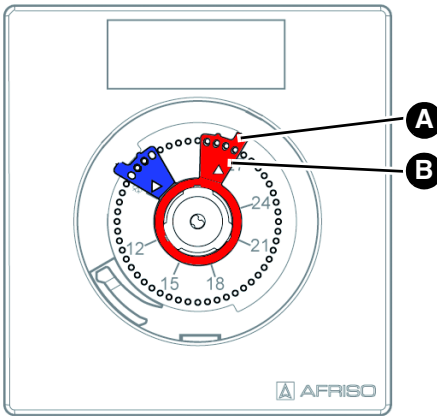
2. Lift the rotary knob and remove it.

7.2.1 Setting the minimum temperature



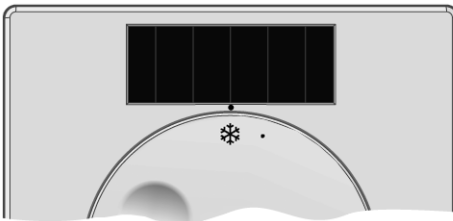
1. Lift the blue restrictor at the flag (A).
2. Turn the blue restrictor with the restrictor adjustment edge (B) to the desired value for the minimum temperature and refit it.

7.2.2 Setting the maximum temperature



1. Lift the red restrictor at the flag (A).
2. Turn the red restrictor with the restrictor adjustment edge (B) to the desired value for the maximum temperature and refit it.
3. Turn the cam screw at the product back to the initial position so that you can refit the rotary knob.
4. Fit the rotary knob to the upper part of the housing.

7.2.3 Frost protection function



Without temperature reduction:

- CosiTherm® adjusts the room temperature to 8 °C

With temperature reduction:

- CosiTherm® adjusts the room temperature to 4 °C

Fig. 4: Frost protection (8 °C)

8 Maintenance

8.1 Maintenance intervals

When	Activity
If required	Replace the optional battery

9 Troubleshooting

Malfunctions of the product 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 and batteries must not be disposed of together with the normal household waste.

⇒ Verify that the optional battery is fully discharged.



1. Dismount the product (see chapter "Mounting", reverse sequence of steps).
2. Remove the battery (see chapter "Inserting a battery (optional)", reverse sequence of steps).
3. Dispose of the product and of the optional battery separately.

11 Returning the device

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

12 Warranty

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

13 Spare parts and accessories


NOTICE

UNSUITABLE PARTS



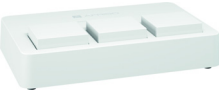
- Only use genuine spare parts and accessories provided by the manufacturer.

Failure to follow these instructions can result in equipment damage.

Product

Product designation	Part no.	Figure
Room temperature sensor "FT"	78111	
Room temperature sensor "FTF"	78119	

Spare parts and accessories

Product designation	Part no.	Figure
Controller module "F2A"	78123	
Controller module "F6A"	78124	
AFRISOhome Gateway HG 02	78102	

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.

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




14.3 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.

15 Appendix

15.1 EU Declaration of Conformity

		
Technik für Umweltschutz Messen, Regeln, Überwachen.		
EU - Konformitätserklärung EU Declaration of Conformity / Déclaration EU de conformité Declaración de conformidad CE / Declaração de conformidade CE Deklaracja zgodności UE	 Formblatt FB 27 - 03	
<p>Name und Anschrift des Herstellers: <u>AFRISO-EURO-INDEX GmbH, Lindenstraße 20, 74363 Güglingen</u> <i>Manufacturer / Fabricant / Fabricante / Nome e endereço do fabricante / Producent:</i></p> <p>Erzeugnis: <u>Raumfühler Funk</u> <i>Product / Produit / Prodotto / Produto / Produkt:</i></p> <p>Typenbezeichnung: <u>Raumfühler FT, Raumfühler FTF</u> <i>Type / Type / Tipo / Tipo / Typ:</i></p> <p>Betriebsdaten: <u>Solar 3V</u> <i>Techn. Details / Caractéristiques / Características / Detalhes técnicos / Dane techniczne:</i></p> <p>Das bezeichnete Erzeugnis stimmt mit den Vorschriften folgender Europäischer Richtlinien überein: <i>The above mentioned product meets the requirements of the following European Directives: Le produit mentionné est conforme aux prescriptions des Directives Européennes suivantes: El producto indicado cumple con las prescripciones de las Directivas Europeas siguientes: O produto indicado cumpre com as prescrições das seguintes Diretivas Europeias: Wymieniony wyżej produkt spełnia wymagania następujących Dyrektyw Europejskich:</i></p> <p>Elektromagnetische Verträglichkeit (2014/30/EU) <i>Directive Electromagnetic Compatibility / Directive compatibilité électromagnétique / Directiva compatibilidad electromagnética / Directiva sobre compatibilidade eletromagnética / Dyrektywa kompatybilności elektromagnetycznej</i></p> <p><u>DIN EN 60730-1:2011 (erfüllt auch / meets also DIN EN 60730-1:2017)</u></p> <p>Niederspannungsrichtlinie (2014/35/EU) <i>Low Voltage Directive / Directive basse tension / Directiva baja tensión / Diretiva sobre baixa tensão / Dyrektywa niskonapięciowa</i></p> <p><u>DIN EN 60730-1:2011 (erfüllt auch / meets also DIN EN 60730-1:2017)</u></p> <p>Radio Equipment Directive, RED (2014/53/EU) <i>RED Directive / Directive RED / Directiva RED / Diretiva RED / Dyrektywa radiowa</i></p> <p><u>EN 301489-3:V1.6.1, EN 300220-2:V3.1.1, EN 62479:2010</u></p> <p>RoHS-Richtlinie (2011/65/EU) <i>RoHS Directive / Directive RoHS / Directiva RoHS / Diretiva RoHS / Dyrektywa RoHS</i></p> <p><u>EN IEC 63000:2018</u></p> <p>Untersigner: <u>Dr. Späth, Geschäftsführer Technik</u> <i>Signed / Signataire / Firmante / Technical Director / Diretor Técnico / Dyrektor Techniczny</i> <i>Assinado por / Podpisat:</i></p> <p><u>17. 12. 2020</u> <i>Datum / Date / Fecha / Data</i></p> <p style="text-align: center;"> Unterschrift / Signature / Firma / Assinatura / Podpis</p>		
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