

Operating instructions



Radio-controlled water valve

WaterControl 01

Type: G1
Type: G $\frac{3}{4}$
Type: G1 $\frac{1}{4}$
Type: G1 $\frac{1}{2}$

Copyright 2022 AFRISO-EURO-INDEX GmbH. All rights reserved.



1 About these operating instructions

These operating instructions describe the radio-controlled water valve WaterControl 01 (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.



DANGER indicates a hazardous situation, which, if not avoided, will result in death or serious injury.

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.



This symbol alerts to hazardous electrical voltage. If this symbol is used in a safety message, there is a hazard of electric shock.

2.2 Intended use

This product may only be used for manually or remotely controlled closing and opening of water pipes in buildings.

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.
- For liquids other than water
- Upstream of fighting systems (for example, fire sprinkler systems)
- Ambient temperatures of less than 0 °C at the shut-off ball valve,
- Ambient temperatures of less than -5 C° at the motor and the control unit
- 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 appropriately trained persons who are familiar with and understand the contents of these operating instructions and all other pertinent product documentation are authorized to mount, commission, maintain and decommission 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.

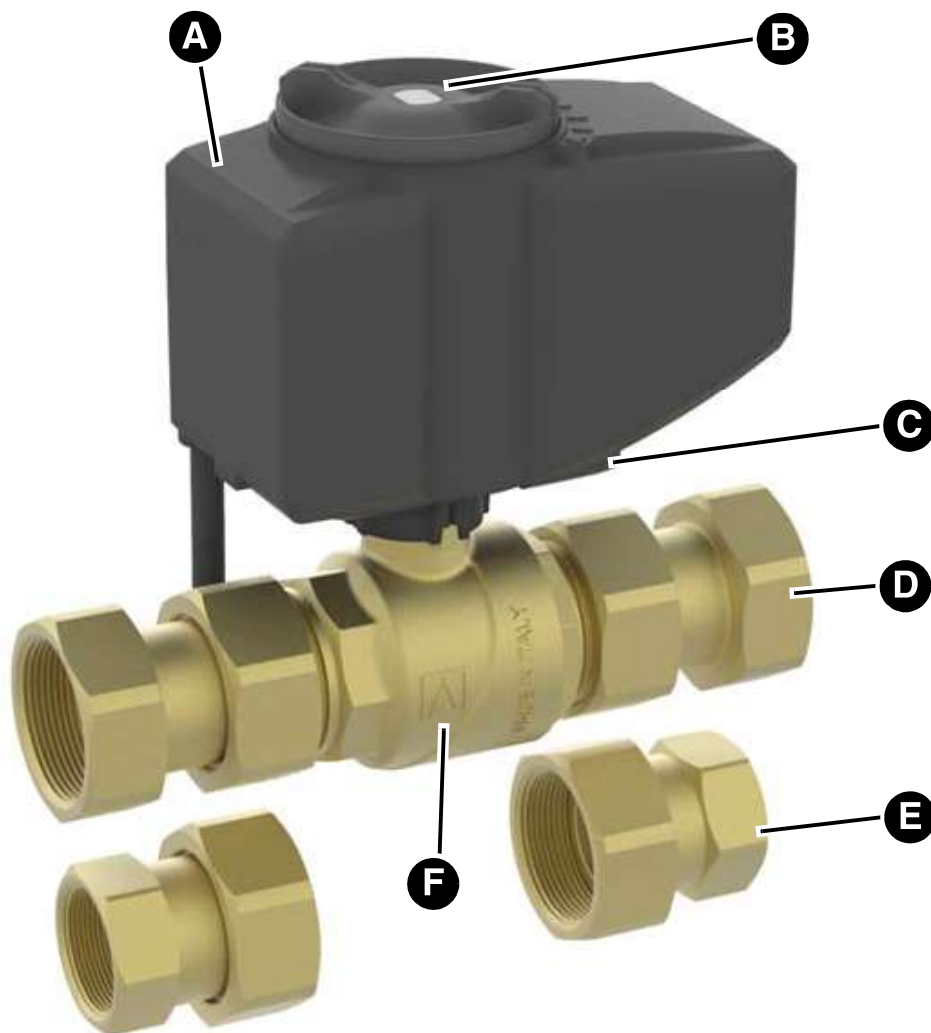
Failure to follow these instructions can result in equipment damage.

4 Product description

The product consists of a control unit and a motor-driven shut-off ball valve for automatic flow interruption.

The shut-off ball valve consists of a ball valve made of brass and a motor drive with hand wheel for manual operation. The control unit is equipped with an EnOcean® wireless module.

4.1 Overview motor-driven shut-off ball valve



- | | |
|---|--|
| A. Motor drive | D. Screw connection G1 female |
| B. Hand wheel for manual operation | E. Screw connection G $\frac{3}{4}$ female |
| C. Locking clip (for releasing the motor from the ball valve) | F. Brass ball valve G1 |

4.2 Control unit

The control unit contains the display and the controls as well as the control electronics in an impact-resistant plastic housing.

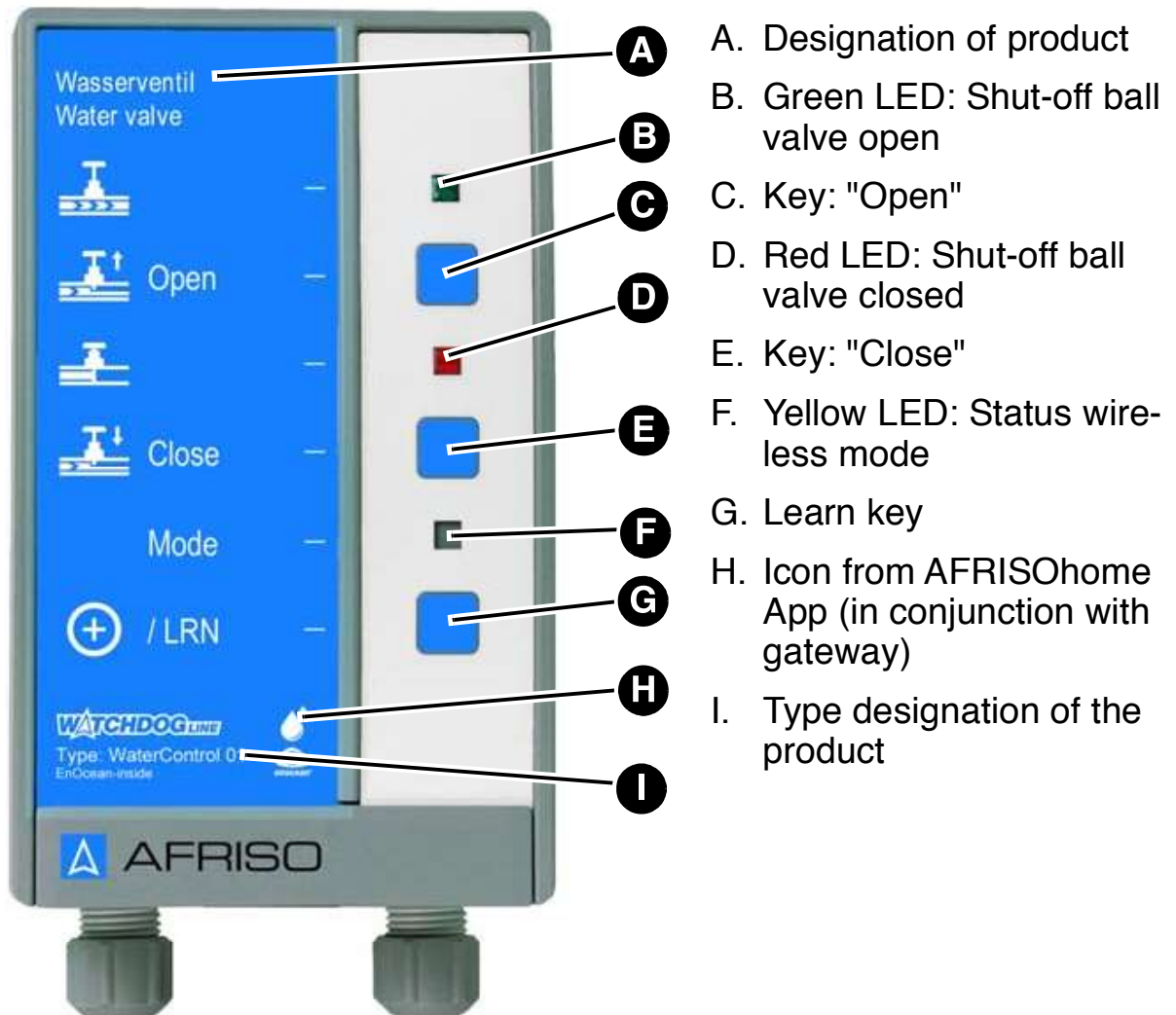

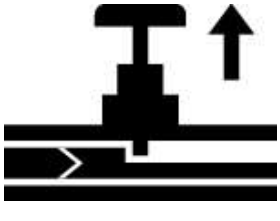

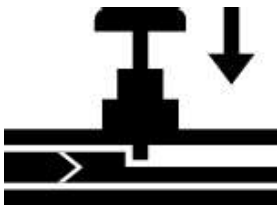



Fig. 1: Control unit

4.3 Pictograms

Symbol	Meaning/function
	<p>Indication</p> <p>Shut-off ball valve open.</p> <p>The green LED to the right of the symbol indicates that the shut-off ball valve is open.</p>
	<p>Key</p> <p>This key triggers opening of the shut-off ball valve.</p>
	<p>Indication</p> <p>Shut-off ball valve closed.</p> <p>The red LED to the right of the symbol indicates that shut-off ball valve is closed.</p>
	<p>Key</p> <p>This key triggers closing of the shut-off ball valve.</p>
	<p>Key</p> <p>This key controls adding and removing of devices.</p>

4.4 Dimensions

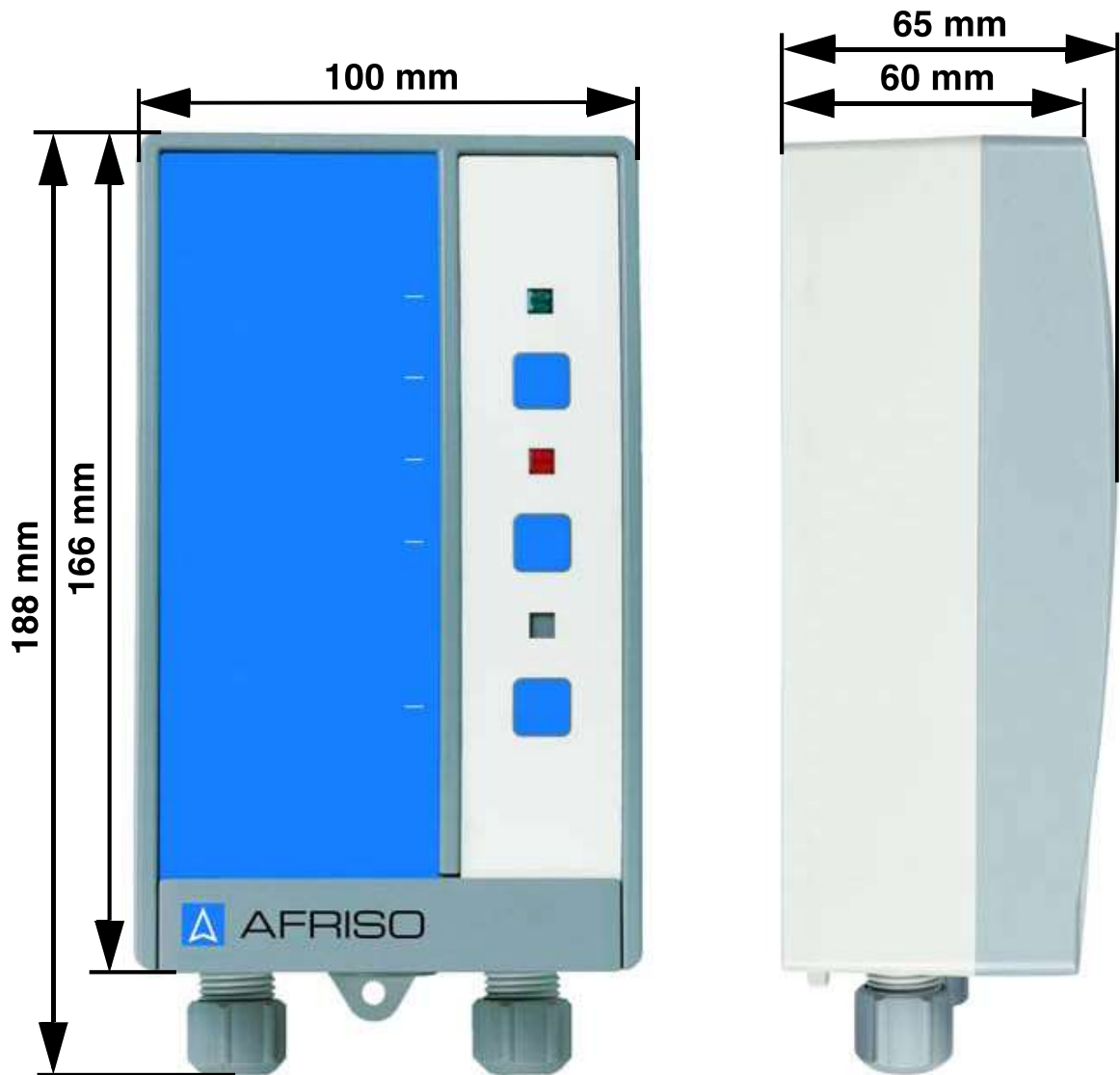


Fig. 2: Dimensions control unit

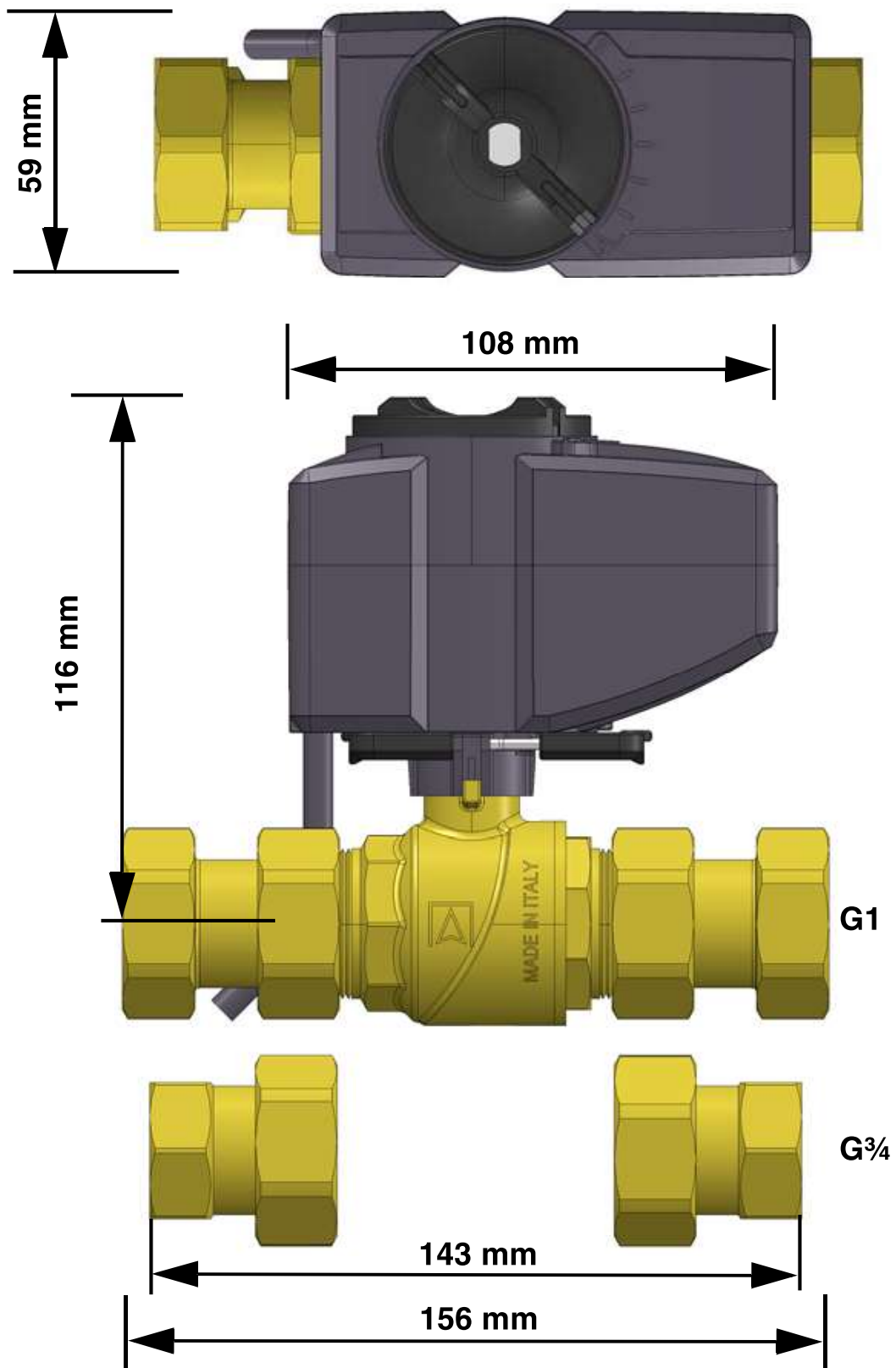


Fig. 3: Dimensions shut-off ball valve G1 with screw connections G^{3/4} and G1

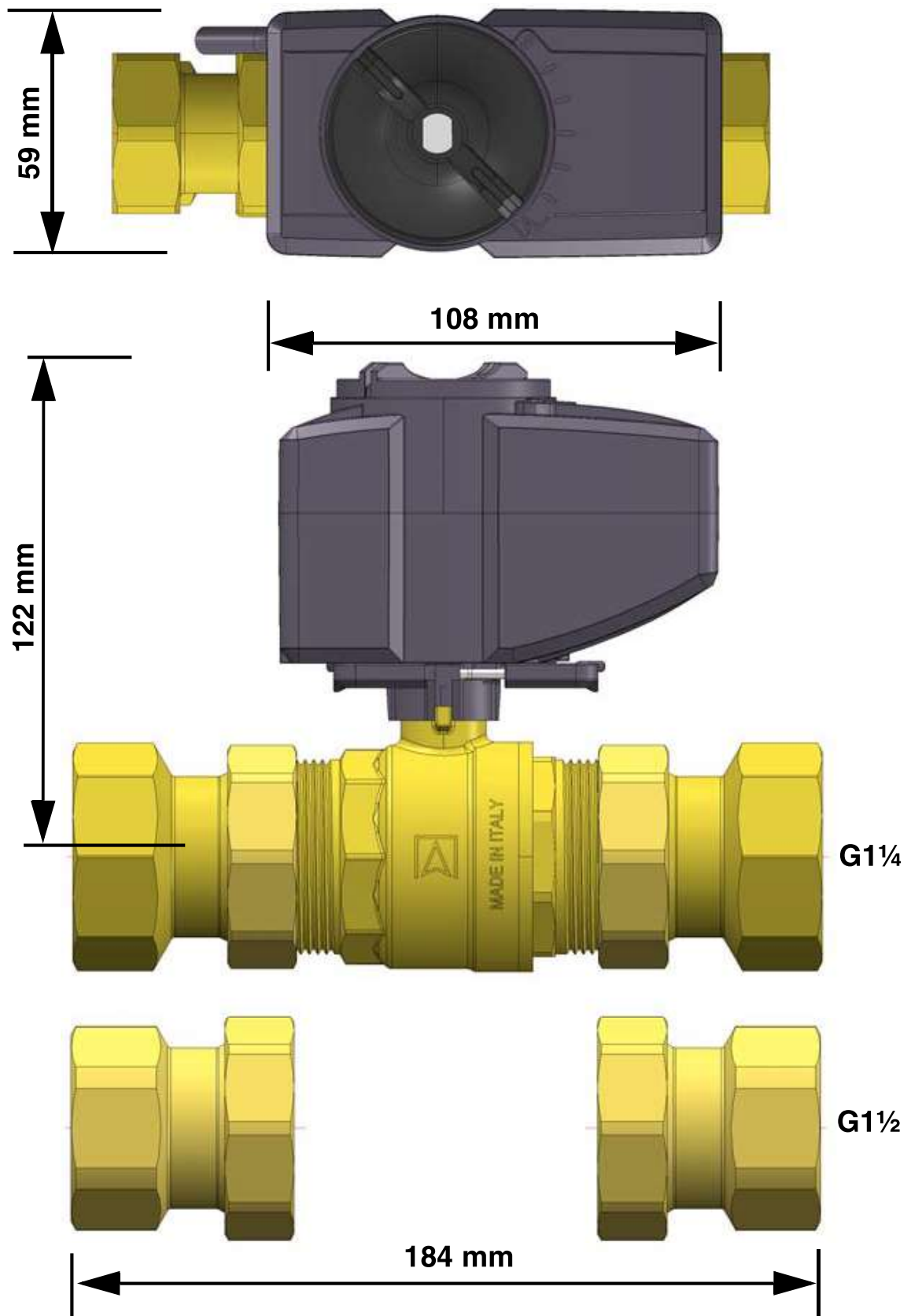


Fig. 4: Dimensions shut-off ball valve G1½ with screw connections G1¼ and G1½

4.5 Function

The product shuts off and opens water pipes. In conjunction with additional water sensors, the product can monitor for water leakage caused by, for example, washing machines, dishwashers, water taps or water pipes. If a sensor detects water, the products shuts off the water pipe with the shut-off ball valve. The AFRISOhome gateway allows for automatic transmission of messages when the shut-off ball valve has changed its state.

4.6 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)

4.7 Technical data

4.7.1 Control unit

Parameter	Value
General specifications	
Dimensions control unit (W x H x D)	100 x 188 x 65 mm
Weight	430 g
Length mains cable	1.5 m
Housing material	PC/ABS
Temperature for ball pressure test	100 °C
Ambient conditions	
Ambient temperature operation	-5 ... 55 °C
Ambient temperature storage	-10 ... 60 °C
Electrical data	
Supply voltage	AC 100 ... 240 V, ±10 %, 50 ... 60 Hz
Nominal power	Motor at standstill < 2 VA Motor running < 5 VA
Protection class (EN 60730)	II
Degree of protection (EN 60529)	IP 40
Type of attachment of non-detachable cord (EN 60730-1)	Type M
Type of action	Type 1
Pollution degree (EN 60730-1)	PD II
Rated impulse voltage	2500 V

Parameter	Value
EnOcean® wireless	
Frequency	868.3 MHz
Transmission power	Maximum 10 mW
Range	See chapter "Information on EnOcean® wireless"
EnOcean® Equipment Profile (EEP)	D2-A0-01

4.7.2 Shut-off ball valve

Parameter	Value			
General specifications	G^{3/4} female	G1 female	G1^{1/4} female	G1^{1/2} female
Diameter connections	2 x G ^{3/4} female	2 x G1 female	2 x G1 ^{1/4} female	2 x G1 ^{1/2} female
Weight	1.2 kg	1.3 kg	1.9 kg	2.0 kg
Shut-off time in seconds	< 5	< 5	< 5	< 5
Material ball valve	Brass			
Dimensions electric motor (W x H x D)	108 x 188 x 59 mm			
Length connection cable	1 m			
Ambient conditions				
Ambient temperature operation	0 ... 50 °C			
Ambient temperature storage	-20 ... 70 °C			
Ambient temperature medium	4 ... 80 °C			
Relative humidity	80 %			
Electrical data				
Supply voltage	DC 24 V			
Protection class (EN 60730)	III			
Degree of protection (EN 60529)	IP 40			

5 Mounting

NOTICE

LACK OF WATER SUPPLY

The product interrupts the water supply in the corresponding water pipe. Water consumers which rely on continuous water supply may be damaged if the water supply is interrupted.

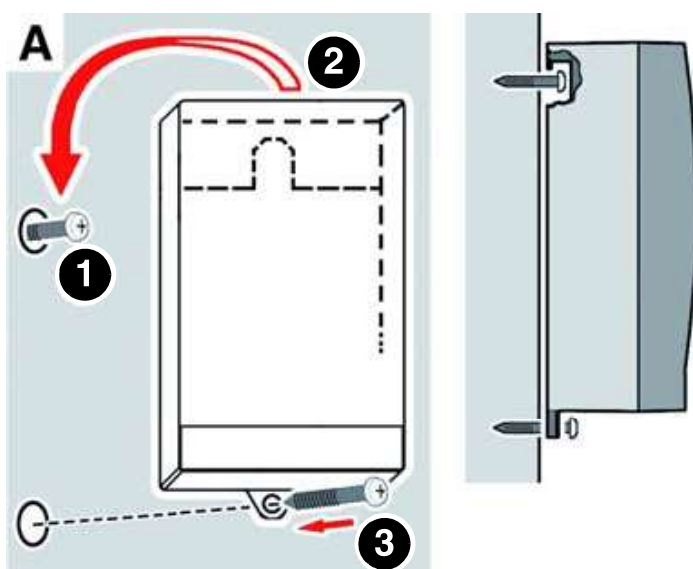
- Verify that only those types of water consumers are connected to the water pipe to be shut off which cannot be damaged by an interruption of the water supply.

Failure to follow these instructions can result in equipment damage.

- ⇒ Verify compliance with the permissible ambient conditions.
- ⇒ Verify that the shut-off fitting for the water pipe has been closed and the water pipe drained before mounting the shut-off ball valve.

5.1 Mounting the control unit

- ⇒ Verify that the control unit is mounted to an even, rigid and dry indoor wall at eye level.
- ⇒ Verify that the control unit is accessible and easy to oversee at all times.
- ⇒ Verify that the control unit is protected against water and splash water.

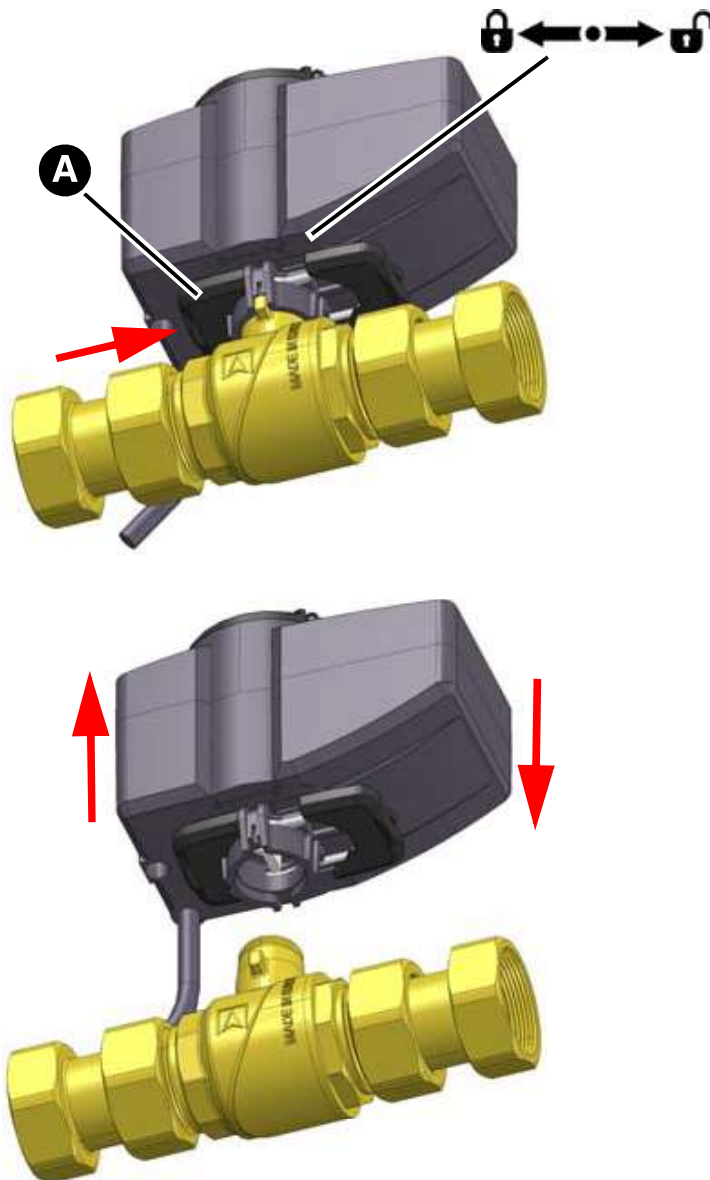


1. Mount the screw to the wall.
2. Fit the control unit.
3. Fasten the control unit by screwing the bottom lug to the wall.

5.2 Mounting the shut-off ball valve

The shut-off ball valve is factory-connected to the control unit.

The shut-off ball valve is usually mounted with the motor attached. If the motor impedes mounting you can temporarily remove it from the brass shut-off ball valve:

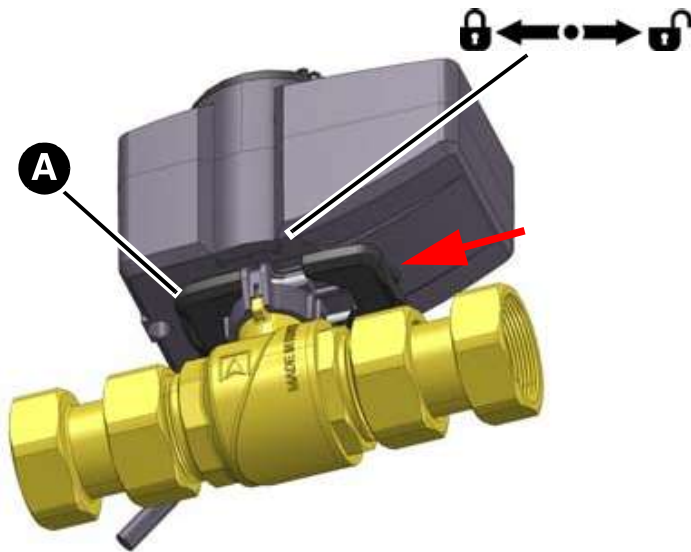


1. Push the locking clip (A) to the position "lock open".

2. Remove the motor.

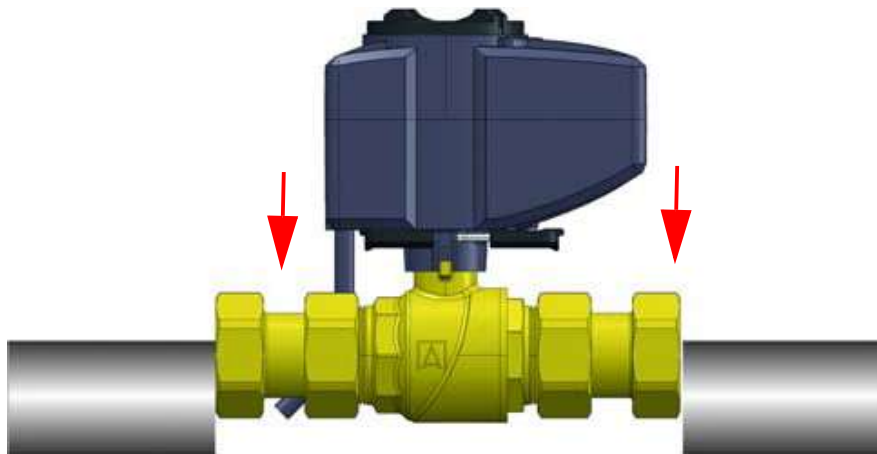
3. Mount the brass shut-off ball valve.

4. Fit the motor to the brass shut-off ball valve.



5. Push the locking clip (A) back to the position "lock closed".

1. Mount the shut-off ball valve



2. Tighten the screw connections with the specified tightening torque:
 - $G\frac{3}{4}$ and $G1$ = 60 Nm
 - $G1\frac{1}{4}$ and $G1\frac{1}{2}$ = 80 Nm
3. Open the shut-off fitting for the water pipe.
4. Verify tightness of the pipe.

5.3 Electrical connection



DANGER

ELECTRIC SHOCK

- Verify that the degree of protection against electric shock (protection class, double insulation) is not reduced by the type of electrical installation.

Failure to follow these instructions will result in death or serious injury.



DANGER

ELECTRIC SHOCK CAUSED BY LIVE PARTS

- Disconnect the mains voltage supply before performing the work and ensure that it cannot be switched on.
- Verify that no hazards can be caused by electrically conductive objects or media.

Failure to follow these instructions will result in death or serious injury.

The shut-off ball valve is permanently connected to the control unit. Do not extend or shorten the connection cable between the control unit and the shut-off ball valve.

The control unit has a permanently connected mains cable with flat connector.

1. Plug the mains plug of the control unit into a suitable isolated, earthed power outlet.

6 Commissioning

The product can be connected to the following devices:

- One AFRISOhome gateway
- 20 WaterSensor con
- 10 WaterSensor eco
- 10 wireless rocker switches

6.1 Connecting the product with devices to be taught in

The procedure (with EnOcean wireless) is described in the operating instructions of the corresponding device.

- ⇒ Verify correct electrical connection of the control unit (see chapter "Electrical connection").
- ⇒ Verify that the EnOcean wireless signal of the control unit reaches the device to be connected or that the device is in the vicinity of the control unit.

6.1.1 Connecting the product to a water sensor/wireless rocker switch

1. Apply mains voltage.
 - The green LED is on.
2. Hold down the lower key at the control unit until the yellow LED starts to flash.
3. Release the lower key.
 - The control unit is in LEARN mode for approximately 30 seconds.
4. Send a LEARN telegram from the device to be connected.
 - The yellow LED lights solid for approximately 4 seconds.
 - The device to be connected is connected to the control unit.
5. Repeat the procedure (steps 2 and 3) for each device to be connected.

If you connect a device the second time, the connection to this device is cleared (see chapter "Disconnecting connected devices from the product").

If the maximum number of devices that can be connected is reached, the red LED on the printed circuit board flashes for approximately four seconds.

6. Place the water sensors at the mounting positions and perform a function test (see "Function test of the water sensors").

6.1.2 Connecting the product to an AFRISOhome gateway

See the operating instructions of the AFRISOhome gateway or the app for detailed information on establishing a wireless connection.

- ⇒ Verify correct electrical connection of the control unit (see chapter "Electrical connection").
- ⇒ Verify that the EnOcean wireless signal of the control unit reaches the AFRISOhome gateway or that the AFRISOhome gateway is in the vicinity of the control unit.
- ⇒ Verify that the AFRISOhome gateway is in "Learn" mode.
 1. Apply mains voltage.
 - The green LED is on.
 2. Press the lower key at the control unit (for approximately half a second).
 3. Release the key.
 - The yellow LED lights up briefly.
 - The control unit sends a Learn telegram (LRNTEL).
 - The control unit is connected to the AFRISOhome gateway.

6.1.3 Disconnecting connected devices from the product

Disconnecting individual connected devices

The connection to a device already connected is cleared if you connect the device a second time.

If the device has been successfully disconnected, the yellow LED at the control unit goes off.

Disconnecting all connected devices (factory reset)

1. Hold down the lower key at the control unit until the yellow LED starts to flash several times in quick succession.
 - All connected devices are disconnected.

6.2 Commissioning the product

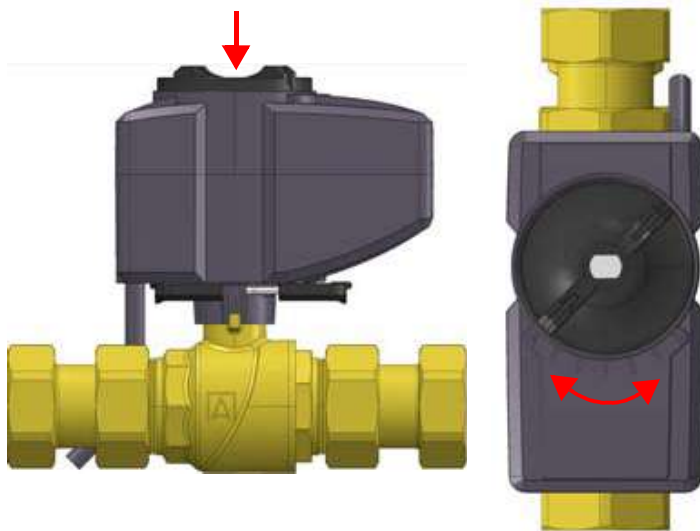
- ⇒ Verify that the product is properly mounted and electrically connected.

 1. Plug the mains plug of the control unit into a suitable isolated, earthed power outlet.
 - The green LED is on when the shut-off ball valve is open.
 - The red LED is on when the shut-off ball valve is closed.

7 Operation

During normal operation, the green LED at the control unit lights. If one of the sensors detects water, the product shuts off the water pipe with the shut-off ball valve and the red LED at the control unit lights up. The control unit sends a message to the AFRISOhome gateway when the shut-off ball valve changes its state. The user receives a message from the AFRISO app that water has been detected.

7.1 Opening/closing the shut-off ball valve manually



1. Push down the hand wheel.
2. Rotate the hand wheel to position "A" in order to close the shut-off ball valve.
3. Rotate the hand wheel to position "B" in order to open the shut-off ball valve.

7.2 Opening/closing the shut-off ball valve via the control unit



1. Hold down the centre key (Close) until the red LED lights.
 - The shut-off ball valve is closed.



2. Hold down the upper key (Open) until the green LED lights.
 - The shut-off ball valve is open.

7.3 Closing the shut-off ball valve via water sensors

The shut-off ball valve can only be closed via water sensors. If a water message reaches the control unit, the shut-off ball valve shuts off the water supply. The red LED at the control unit lights.

Remove the cause of the leakage prior to reopening the shut-off ball valve (see chapter "Opening/closing the shut-off ball valve via the control unit").

7.3.1 Function test of the water sensors

WaterSensor eco

⇒ Verify that the shut-off ball valve is open.

- The green LED is on.

1. Press the slider at the WaterSensor eco once and release it.
2. Check whether the control unit has received the signal.
 - The red LED lights.
 - The shut-off ball valve shuts off the water supply.

WaterSensor con

⇒ Verify that the shut-off ball valve is open.

- The green LED is on.

1. Touch the bottom of the WaterSensor con with a wet finger.
2. Check whether the control unit has received the signal.
 - The red LED lights.
 - The shut-off ball valve shuts off the water supply.

7.4 Opening/closing the shut-off valve via a wireless rocker switch

You can open or close the shut-off ball valve using the wireless rocker switch.

7.4.1 Function test with wireless rocker switch

1. Press the rocker of the wireless rocker switch.
 - The shut-off ball valve opens or shuts off the water supply.
 - The corresponding lights at the control unit.

8 Maintenance

8.1 Maintenance intervals

When	Activity
Every six months	<p>Check the wireless connection of all pushbuttons and water sensors (see chapters "Function test of the water sensors" and "Function test with wireless rocker switch").</p> <p>Verify proper operation of the shut-off ball valve and the motor.</p>

8.2 Maintenance activities

Deposits in water pipes can block the shut-off ball valve.

1. Use the hand wheel to verify correct operation of the shut-off ball valve (see chapter "Opening/closing the shut-off ball valve manually").

9 Troubleshooting

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

Problem	Possible reason	Repair
LEDs do not light	No supply voltage	Apply supply voltage
	Shut-off ball valve is not fully open or closed	Fully open or fully close the shut-off ball valve
Other malfunctions	-	Contact the AFRISO service hotline

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. Disconnect the product from mains.
2. Dismount the product (see chapters "Mounting the control unit" and "Mounting the shut-off ball valve", reverse sequence of steps).
3. Dispose of the product.

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
Radio-controlled water valve WaterControl 01 G $\frac{3}{4}$	42570	
Radio-controlled water valve WaterControl 01 G1	42571	

Spare parts and accessories

Product designation	Part no.	Figure
Shut-off ball valve 24 V G $\frac{3}{4}$ + G1	42574	

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 <i>EU Declaration of Conformity / Déclaration EU de conformité</i> <i>Declaración de conformidad CE / Declaração de conformidade CE</i> <i>Deklaracja zgodności UE</i>	 <div style="float: right; text-align: right; font-size: small;"> Formblatt FB 27 - 03 </div>	
<p>Name und Anschrift des Herstellers: <u>AFRISO-EURO-INDEX GmbH, Lindenstraße 20, 74363 Göglingen</u> <i>Manufacturer / Fabricant / Fabricante / Nome e endereço do fabricante / Producent:</i></p> <p>Erzeugnis: <u>Funkgesteuertes Wasserventil</u> <i>Product / Produit / Producto / Produto / Produkt:</i></p> <p>Typenbezeichnung: <u>WaterControl 01</u> <i>Type / Type / Tipo / Tipo / Typ:</i></p> <p>Betriebsdaten: <u>100-240V AC; <5W; IP 40</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:</i> <i>Le produit mentionné est conforme aux prescriptions des Directives Européennes suivantes:</i> <i>El producto indicado cumple con las prescripciones de las Directivas Europeas siguientes:</i> <i>O produto indicado cumpre com as prescrições das seguintes Diretivas Europeias:</i> <i>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> <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> <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> <u>ETSI EN 301489-1 V2 2.3; ETSI EN 301489-3 V2 1.1; ETSI 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> <u>EN IEC 63000:2018</u></p> <p>Unterzeichner: <u>Dr. Späth, Geschäftsführer Technik</u> <i>Signed / Signataire / Firmante / Assinado por / Podpisal:</i> <i>Technical Director / Diretor Técnico / Dyrektor Techniczny</i></p> <p style="text-align: center;"> <u>12.01.2022</u> <i>Datum / Date / Fecha / Data</i> </p> <div style="text-align: right; margin-top: 10px;">  <i>Unterschrift / Signature / Firma / Assinatura / Podpis</i> </div>		
Version: 3 Index: 1	AFRISO-EURO-INDEX GmbH D-74363 Göglingen	Seite 1 von 1