

## FDV - Waterguard+ Wireless Single/Dual/Triple 1/2 - 2 Solenoid Valve PRO - Bundle



### Product information

Waterguard+ PRO installed with one, two or three solenoid valves in the size of 1/2" (DN15) to 2" (DN50) is an advanced leak protection system designed to monitor and automatically shut off the water supply in homes, holiday homes, apartment and commercial buildings in the event of water leaks, low temperatures that can lead to ice formation and pipe bursts, as well as high humidity levels\*.

Solenoid valves are used as an alternative to ball valves if the installation requires

- valves in size 1" (DN25) or larger
- Up to 3 valves controlled in parallel

The system is approved by Sintef under approval number TG20834 and meets Norwegian building regulations including TEK10 and TEK17. All electrical components in the system are tested and certified according to CE requirements, as well as meeting REACH and RoHS regulations.



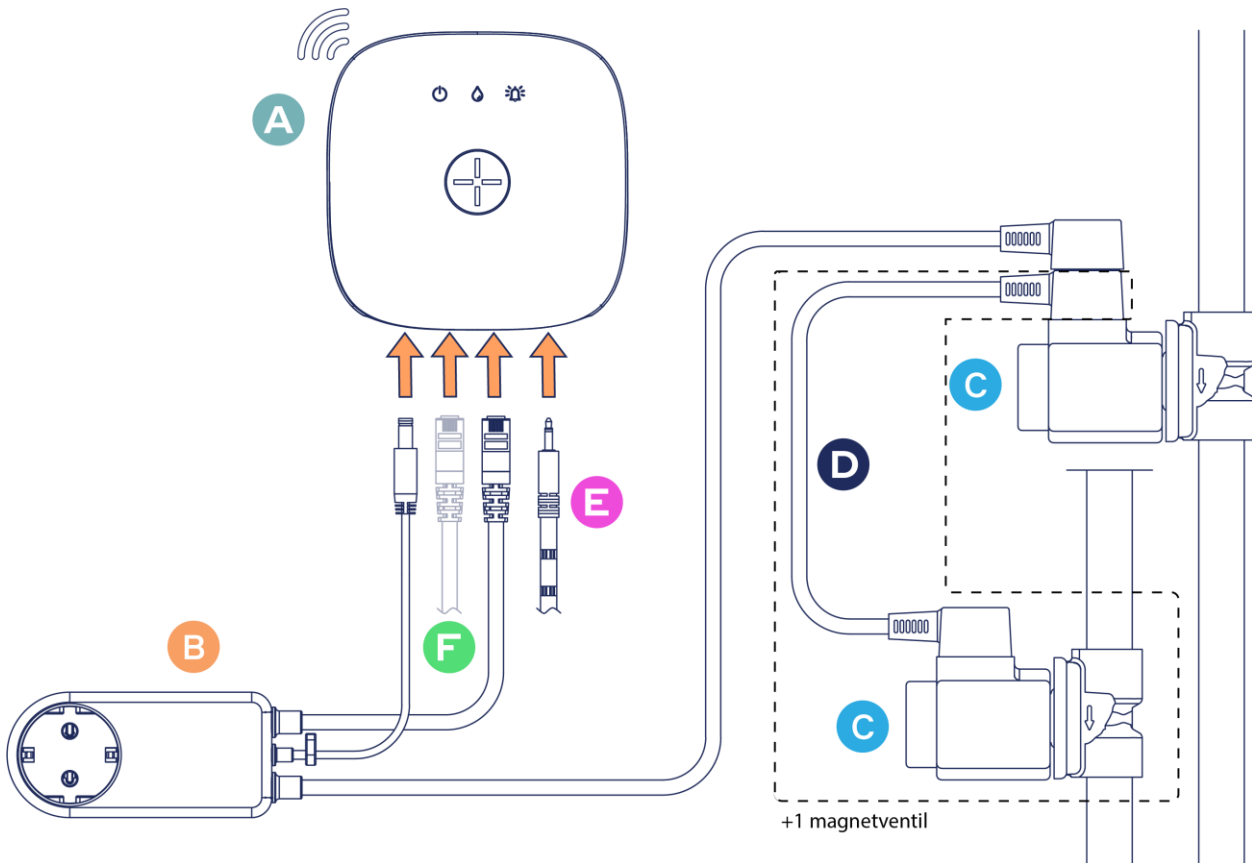
*\*Temperature and humidity measurement requires the connection of the optional WaterSensor+ wireless water sensor.*

## System Overview

The illustration below shows the typical combination of products in the system, consisting of the Linkbox+ 4G central unit, one to three solenoid valves in the size 1/2" to 2", one sensor tape that detects water leaks, and accessories to install this.

The area enclosed by the dotted line dictates the installation of two or more valves by parallel connection.

For extended detection range, the wireless water sensor WaterSensor+ is often installed in combination with the aforementioned products. See [FDV - WaterSensor+ \[Art. no.: 72.380.337306 - NOBB: 5648875\] – Waterguard Customer Support](#) for information on this product.



**Products that are typically installed together**

Product Name	Number	Description	Article	EAN / GTIN	NOBB
Abra Linkbox+ 4G (A)	1 pcs.	The central unit that handles signals from sensors and controls the ball valves.	72.380.337113	7072380371134	5648934
Power Adapter for Linkbox+ and Solenoid Valves (24V DC / 230V AC) (B)	1 pcs.	230V AC power adapter for power valve combined with 24V DC power adapter for Linkbox+.	72.380.337325	7072380373251	5648888
Danfoss Solenoid Valve EV 220B, 1/2" (C)	1-3 pcs. (total)	Solenoid valve for opening and closing the water supply.	N/A		5640101
Danfoss Solenoid Valve EV 220B 3/4" (C)					5640036
Danfoss Solenoid Valve EV 220B, 1" (C)					5640537
Danfoss Solenoid Valve EV 220B, 1 1/4" (C)					5640538
Danfoss Solenoid Valve EV 220B, 1 1/2" (C)					5640539
Danfoss Solenoid Valve EV 220B, 2" (C)					5640541
Solenoid Valve Split Cable - 0.65 m (D)	1 x for each solenoid valve in addition to the first one installed	Split cable of 0.65 m that allows to connect in series one (1) or two (2) solenoid	72.380.337340	7072380373404	5648199

		valves to power adapter for Linkbox+ and magnetic solenoid valves 24V DC / 230V AC.			
Solenoid Valve Extension Cable - 3 m (D)	1 pcs.	Extension cable of 3 m that allows to increase the distance from power adapter for Linkbox+ and magnetic solenoid valves 24V DC / 230V AC to valve.	72.380.337323	7072380373237	5648246
Waterguard+ Sensor Tape w/3.5 mm Jack (E)	1 pcs.	Wired water sensor detects the presence of water.	72.380.337307	7072380373077	5648877

*(F) Indicates network cable connected to Linkbox+ (not included in product package). Waterguard Cat. 6 cable (0.6 m or 2 m) can be used, alternatively standard network cable Cat. 5 or later.*

For a complete overview of product packages and products belonging to Waterguard+, see the article [Overview of Waterguard+ product packages and article numbers](https://support.waterguard.no/hc/articles/14813969010845) (https://support.waterguard.no/hc/articles/14813969010845).

### Installation instructions

Detailed instructions on how to install the product correctly and safely are available at Waterguard Customer Support under the section [Installation and User Manual – Waterguard Customer Support](https://support.waterguard.no/hc/categories/13644910475549) (https://support.waterguard.no/hc/categories/13644910475549).

General guidelines:

- Waterguard+ is suitable for use in homes, holiday homes, apartment and commercial buildings, both on the supply of hot and cold water.
- The system must only be installed in a dry and frost-free environment.
- The system is intended to detect water leaks and limit the extent of damage. There will always be some water spillage before the sensors react and the water supply is turned off.
- The valves must be installed by a licensed plumber in accordance with the Constitution. installation guide. This is to ensure correct operation of the system, as well as valid insurance in the event of any water damage.
- In the event of a power failure, the ball valves will retain the position they had at the front (open or closed).
- The water in the pipe system must satisfy the European Drinking Water Directive.
- The system must only be used in good condition and in accordance with the requirements of the system. installation and use instructions in this manual.
- The installer must always ensure that the ball valve is fitted before connecting power.

For detailed solution descriptions, see the [Installation Solutions](#) section (<https://support.waterguard.no/hc/categories/13644911508893>).

For the relevant product package with one valve unit, the following articles are applicable:

<b>Solution description</b>	<b>Chosen solution (CHECK THE TYPE OF INSTALLATION)</b>
<a href="#">Waterguard+ shaft solution (apartment buildings and larger buildings)</a> <a href="https://support.waterguard.no/hc/articles/5118874920605">https://support.waterguard.no/hc/articles/5118874920605</a>	

### Operating Instructions

Guidance for normal use of the product, including start-up, operation, and shutdown is available in Section [11. Use and Maintenance](#) (<https://support.waterguard.no/hc/articles/5361731179805>) and [12. Modes, Alerts and Signals](#) (<https://support.waterguard.no/hc/articles/10029552866717>) on Waterguard's website.

The product is intended to last the lifetime of the building, assuming normal use, maintenance and wear and tear.

## Maintenance Procedures

The Waterguard+ system requires minimal maintenance during normal use, other than keeping sensors clean (free of dust and dirt).

However, it is important that the system is function-tested at least 2 times per year to be sure that the system works as intended. Follow the instructions in article [10. Functional test](https://support.waterguard.no/hc/articles/4629650381597) (<https://support.waterguard.no/hc/articles/4629650381597>) in the Waterguard+ Installation and User Manual.

Please note that if the system is installed in public or publicly accessible areas, inspections must be carried out in accordance with applicable regulatory requirements. Although cleaning is not necessary for its functionality, it can be carried out for aesthetic reasons. Clean with common household cleaners, but avoid harsh chemicals containing oil and alcohol, as these can discolour the plastic components.

## Safety Instructions

Waterguard+ is designed with safety in mind and uses a 24V DC power supply. Despite the low voltage, we ask that you be aware of the hazards of electrical products and adhere to the instructions below.

### ***LES DETTE***

#### **FARE VED INSTALLASJON AV UTSTYR**

- Bruk alltid produktet i samsvar med spesifiserte tekniske data.
- Ta vare på installasjonsinstruksjonene i hele produktets levetid.

**Hvis du ikke følger disse instruksjonene, kan det medføre skade på utstyret.**

### **⚠ ADVARSEL**

#### **FARE I FORBINDELSE MED FORSEGLET BATTERI**

Ikke lad opp, demonter eller brenn batteriet.

**Hvis du ikke følger disse instruksjonene, kan det medføre død eller alvorlig skade, eller skade på utstyret.**

- The system must only be installed in a dry and frost-free environment.

- The valve and valve components must not be dismantled when the water pipes are pressurized. The water supply must therefore be shut off and drained out of the pipe system before installation.
- Visibly damaged cables or equipment should be replaced to prevent short circuits or reduced functionality.
- The central unit with associated power adapters, cables and valve actuator is intended for use indoors and in dry environments only.
- Connection points must not be sprayed directly or indirectly with water or other liquids during use or cleaning.
- The installer must always ensure that the ball valve is fitted before connecting power. When connecting power when the valve is not fitted, there is a significant risk of finger injury or damage to the valve as a result of foreign elements in the valve opening.

### **Troubleshooting Guide**

If the valve does not close/open:

- Check that the Cat.6 cable is correctly connected in both the valve actuator and the Linkbox+ (blue RJ45 connector).
- Verify that the Linkbox+ is connected to mains power

If the system does not go off when the sensor tape is wetted:

- Verify that sensor tape is correctly connected to the Linkbox+ (jack plug)
- Check that there is no damage or breakage to the sensor tape.

If the system goes off an alarm when sensor tape is wetted but the water remains open, refer to the section "simple valve test" in [section 10. Functional test](#) (<https://support.waterguard.no/hc/articles/4629650381597>).

If an extension piece or splitter is used to extend the sensor tape, and some of the sensor losses do not trigger a water alarm in the function test; Check that the tape is correctly connected at the joints. If necessary, swap the tapes to clarify whether it is the joint piece or the tape that is the problem.

If the valve does not open after the function test, there is most likely still moisture on the sensor tape. Wipe the sensor tape well and repeat attempts to open the valve.

## **Spare parts and accessories**

### **Spare parts**

See the list at the top of the document for a complete overview of products in the package. These products can be ordered individually at [www.waterguard.no](http://www.waterguard.no) and from distributors of Waterguard.

### **Accessory**

For accessories to the Waterguard+ system that can be used to increase the coverage area for water detection or to connect multiple valves, see [Overview of Waterguard+ product packages and article numbers](https://support.waterguard.no/hc/no/articles/14813969010845-Oversikt-over-Waterguard-produktpakker-og-artikkelnumre) (<https://support.waterguard.no/hc/no/articles/14813969010845-Oversikt-over-Waterguard-produktpakker-og-artikkelnumre>)

## **Legal and regulatory requirements**

### **Generally**

The purpose of the system is to detect water leaks and limit the extent of damage. There will always be some water spillage before the sensors react and the water supply is turned off.

## **Declaration of Conformity CE marking and sales in the EU/EEA**

### [Declaration of Conformity for Linkbox+ 4G / WiFi](#)

<https://erp.felltech.no/document/share/67/ee3187f0-93c1-433e-a6dd-6cf39b9e65d1>

### [Declaration of Conformity for Combined Power Adapter for Magnifying Valve and Linkbox+](#)

<https://erp.felltech.no/document/share/68/fd898c5a-7d15-4211-8709-4ba61cea8370>

See link to data sheets for Danfoss solenoid valves in the article [Danfoss valves - Overview and datasheets](#). Section 6.1 of the data sheets refers to current standards.

<https://support.waterguard.no/hc/no/articles/4688629440797-Danfoss-ventiler-Oversikt-og-datablader>



**Other:**

Ball valves from Waterguard are tested to meet the requirements for reliable function and service life, as well as hygienic properties for safe use in contact with drinking water.

The valves hold KTW and W270 certificates and certifications required by the Norwegian authorities according to the UBA System 1+ regulation.

**Type approval**

Waterguard+ is type-approved by Sintef and registered under [TG 20834 Waterguard+ leak arrester](https://www.sintefcertification.no/Product/Download/11188) (https://www.sintefcertification.no/Product/Download/11188). The system has been tested together with leak detection sensors and valves for water shut-off, and found to comply with the current requirements for function, service life and hygienic properties.

**Contact information****Distributor**

**Provider:** Waterguard Intl. AS

**Organisation number:** NO 812 750 062 MVA

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**Phone:** +47 23 11 56 60

**E-mail:** [post@waterguard.no](mailto:post@waterguard.no)

**Internet address:** [www.waterguard.no](http://www.waterguard.no)

**Support**

See [Waterguard Customer Support](https://support.waterguard.no) (https://support.waterguard.no) or contact us by phone +47 23 11 56 60.

**Guaranteed**

Waterguard+ and its accessories are free from material defects and are designed in accordance with consumer protection laws and regulations in the country where the product is purchased. All correctly installed Waterguard+ systems are covered by our 5-year limited warranty.

Waterguard is not responsible for defects that do not affect the essential function of the product, or that are due to user error, accidents, overvoltage, use contrary to the supplier's or our instructions/product sheet or lack of maintenance. The buyer's right to invoke defects also lapses if the product is changed or repaired by someone other than the supplier without the supplier's prior written consent. Waterguard is only liable under the warranty if the Buyer complains within the warranty period and within the warranty period.

For detaljerte garantivilkår, se [Waterguard produktgaranti](https://erp.felltech.no/document/share/42/f5f01eb5-9724-4507-a866-dfb2a972af30) (https://erp.felltech.no/document/share/42/f5f01eb5-9724-4507-a866-dfb2a972af30).

If components of your Waterguard+ system need repair within the warranty period, please contact Waterguard Customer Support.

### **Extended warranty when registering Linkbox+ with Abra**

By registering your Linkbox+ with Abra through the Abralife app, you as a customer get a 10-year extended warranty on the product. The warranty starts from the time of purchase or the time of takeover of the system if delivered in new builds.

To register Linkbox+; scan the QR code on the front of the Linkbox+ and follow the link. This will take you directly to the download and installation of the Abralife app, as well as the setup, registration and configuration of the Linkbox+ in your Abra smart home.