



Smart Water Valve FK-V02 User Manual



Wi-Fi and Bluetooth



Technical specifications

Ball valve, stainless steel, precise valve position control

Ingress Protection: IP65

Model No: FK-V02

Material: SS304 & Engineering Plastics

Valve size: ½ inch NPT, ¾ inch NPT, 1 inch NPT

Screw thread: NPT

Max. pressure: 1.0 MPa

Input Voltage: DC 5V, 2A by USB adapter

Ambient temperature: -30°C to 60°C

Water temperature: 0°C to 90°C

Read before use

This document contains important technical and safety information about the device, its safe use and installation. Before beginning the installation, please read carefully and entirely this guide and any other documents accompanying the device. Failure to follow the installation procedures could lead to malfunction, danger to your health and life, violation of the law or refusal of legal and/or commercial guarantee (if any). HANGZHOU FRANKEVER ELECTRONIC CO., Ltd. is not responsible for any loss or damage in case of incorrect installation or improper operation of this device due to failure to follow the user and safety instructions in this guide.

Safety Information

CAUTION! The valve should be installed by qualified technician!

WARNING! Before installing the valve, turn off the water supply, ensure the water pipes are empty, and there is no chance for a water to be supplied during work!

CAUTION! Do not install the product in a system with pressure higher than 1.0 MPa, or install it after a pressure reducing valve!

CAUTION! Do not attempt to service or repair the water valve yourself!

CAUTION! Use the valve only with the original accompanying equipment!

CAUTION! Do not use the valve if it has been damaged or show signs of malfunction or defect, and contact your dealer for assistance!

CAUTION! Do not expose on a direct sunlight, or install near source of heat!

WARNING! The USB connection to the plug is not watertight! Ensure it is always kept dry, and protected from water splashing!

CAUTION! Keep all wire junctions dry!

CAUTION! When connecting the USB plug to the power grid, ensure the plug and the wall outlet are not wet or damp!

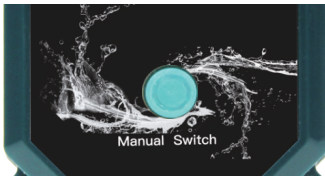
RECOMMENDATION! Keep these instructions for future reference.

Installation Guidelines

After installing the valve ensure the connections are watertight, and there are no water leaks.

Ensure the power cords between the valve and power supply have enough slack to avoid tension in junctions.

Manual operation



1. Manual Switch: Short press the manual switch to open/close the valve.
2. Network reset: Long-press the button until the LED indicator starts flashing quickly to enable the device's Access Point and Bluetooth connection (see Local-only operation).

Temperature sensor

The Smart Water Valve also supports connecting a temperature sensor for temperature monitoring and smart automation.

The supported model is the popular DS18B20 temperature sensor, ending with a 3.5mm audio jack, wired as shown on the diagram below:



The sensor must be connected to the female audio jack socket, attached to the power cable. The Smart Water Valve will discover the sensor automatically and the discovery can take up to a minute.

Once the temperature sensor is discovered, its readings will be shown in the app and local web interface, and you can use it to define actions based on changes in the temperature - e.g. close the valve if the temperature drops below 5° C.

Using your valve with Shelly Smart Control app

The device can be controlled and monitored remotely by using the Shelly Smart Control mobile application.

To install the mobile application, scan the QR code below, or search for "Shelly Smart Control" in App Store, Google Play, or AppGallery to install.

The mobile application is free of charge, and you need to create a free account to use it.



Adding your device to the Shelly Smart Control app

1. Open your Shelly Smart Control app.
2. Tap on the on the plus sign at the bottom right corner of the screen.
3. Select **Add via Bluetooth**.
4. Tap **Next** to continue; a list of supported devices appears.
5. Select the device you want to add and tap **Next**.
6. Enter your Wi-Fi credentials and tap **Add device**.
7. Wait until your app finishes adding the device; it might take a few minutes. After the process is completed, a success message appears.
8. Enter a name for your device and select its picture; tap **Next**.
9. Select a room for the device to be added to or create a new one by tapping the **Add room** button.
10. Tap **Save**. The device has been added to your account.

Once added to your Shelly account, the valve can be controlled and monitored remotely using the mobile application.

The valve opening can be set between 0% and 100% in 10% steps.

Note: The Device comes with factory-installed firmware. To keep it updated and secure, Shelly Europe Ltd. provides the latest firmware updates free of charge. Access the updates through either the embedded web interface or the Shelly Smart Control mobile application. Installation of firmware updates is the user's responsibility. Shelly Europe Ltd. shall not be liable for any lack of conformity of the Device caused by the failure of the user to install the available updates in a timely manner.

Configuration

The configuration page allows you to set Wi-Fi and Bluetooth connection, share the device with other accounts, reset the valve and configure the valve as a Wi-Fi range extender.

The Smart Valve supports configuring power-related actions:

- on power loss - open, close, or set the valve at a predefined position in %.
- when power is restored - open, close, set to a predefined position, or restore the position of the valve before power outage.

When power is lost, the valve has enough power reserve to perform at least one full open or close operation.

Scenes

As part of Shelly Cloud, the valve can be integrated into scenes that coordinate the actions of multiple devices in your account to achieve a desired result.

For example, a scene called "Going on vacation" may include:

- Shelly Dimmer to turn off the house lights.
- Smart Water Valve to turn off the water supply.
- Shelly 2PM device to close the window blinds.

Schedules

Use the Schedules to configure the valve to perform actions at a specified time or day.

Local-only operation

Accessing the Local Web Interface

Each Shelly device provides a built-in web interface for control and configuration without internet access. You only need a computer or smartphone connected to the device's Access point (AP).

How to connect to the AP

When powered on, the device starts its Access point (AP) as a Wi-Fi network named DeviceName-XXXXXXXXXX, where DeviceName is the model and XXXXXXXXXXXX is the unique device ID.

1. Connect your computer or smartphone to this Wi-Fi network.
2. Open a browser and go to <http://192.168.33.1> to access the web interface.

Note: A factory reset via the web interface restores the original settings but does not remove the device from your user account (unlike a reset through the mobile app).

Controlling the valve via local web interface

"Home" tab:

- Open or close the valve via the up & down arrows.
- Open the valve to a certain percentage via the horizontal slider.

If the valve loses power, it will also be shown on the home screen.

Note: in case of power outage, the valve has limited time of usually one open or close action, if such is specified in the valve configuration screen. The behavior on power outage can be configured in the Configuration tab.

Actions

You are able to define actions when certain conditions are met. Actions can also be limited to be active during a certain period of time during the day.

Declaration of Conformity

Hereby, HANGZHOU FRANKEVER ELECTRONIC CO. Ltd. declares that the Smart Water Valve is in compliance with Directives 2014/53/EU, 2011/65/EU . The full text of the EU Declaration of Conformity is available at the following internet address:

<https://shelly.link/frankever-sww1-doc>

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FCC Warning

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution: Any changes or modifications to this device not explicitly approved by the manufacturer could void your authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm (7.87 in) between the radiator and your body.

Disposal and Recycling

Do not dispose of the product in household waste. Recycle the product to prevent environmental and health damage and to promote resource conservation. Dispose of the product at an appropriate waste collection point at your own responsibility.

Resellers, from which the Device was purchased, are required to accept Waste Electrical and Electronic Equipment (WEEE) free of charge for proper disposal.

Some electronic products may store personal data. The user is responsible for deleting this data before disposing of the Device. For deletion, reset the device to its factory settings.



FCC ID: 2AMMG-FKV02



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