

Secure Flow Stop

SKU: POPE009501

Quickstart

This is a [redacted] for [redacted]. You must not move the rocker arm manually without unlocking it [redacted]

[redacted] mechanically pulling on the ring on the bottom side [redacted]

[redacted] of the enclosure.

What is Z-Wave?

Z-Wave is the international wireless protocol for communication in the Smart Home. This device is suited for use in the region mentioned in the Quickstart section.

Z-Wave ensures a reliable



communication by reconfirming every message (**two-way communication**) and every mains powered node can act as a repeater for other nodes (**meshed network**) in case the receiver is not in direct wireless range of the transmitter.

This device and every other certified Z-Wave device can be **used together with any other certified Z-Wave device regardless of brand and origin** as long as both are suited for the same frequency range.

If a device supports **secure communication** it will communicate with other devices secure as long as this device provides the same or a higher level of security. Otherwise it will automatically turn into a lower level of security to maintain backward compatibility.

For more information about Z-Wave technology, devices, white papers etc. please refer to www.z-wave.info.

Product Description

The Flow Stop moves the operating handle of a ball valve allowing to stopping the flow of gas or water. It can be mounted non-intrusive on any pipe size between 0.5 and 1.5 inch. This means the original water or gas pipe will not be opened or manipulated and it is possible to remove the Flow stop again without any damage to the water or gas pipe. Installing the Flow stop will not tamper or change any security measure applied or your gas or water installation. The device is equipped with a powerful 12 V motor providing sufficient torque to open or close any ball valve within 10 seconds. A complete manual operation of the valve remains possible due to the



clutch release bearing. The device can be operated using the local button and remotely using Z-Wave wireless communication. Various functions protect the flow stop from accidental or intentional misuse:

- Z-Wave Communication applies enhanced security implementing the Security Command Class. This does not only protect the device against burglars that want to do harm to the home (e.g. waste water by opening the valve to watering system). It's also protecting better against jamming of the communication link.
- Configuration of the local LED. The user can now decide if the blue LED shall indicate open or close state
- Unsolicited report of any state change of the flow stop to the controller.
- Second communication channel to report manual operation of the device. Here up to 5 other devices can be operated independent of the controller, e.g. to announce any local operation.
- The remote operation of the device can be limited to „no“, „only open“ or „only close“ to further protect against malfunction.

Prepare for Installation / Reset

Please read the user manual before installing the product.

In order to include (add) a Z-Wave device to a network it **must be in factory default state**. Please make sure to reset the device into factory default. You can do this by performing an Exclusion operation as described below in the manual. Every Z-Wave controller is able to perform this operation however it is recommended to use the primary controller of the previous network to make sure the very device is excluded properly from this network.

Reset to factory default

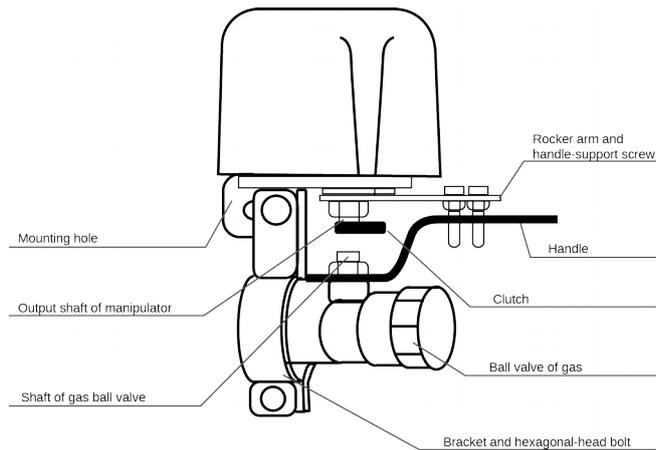
This device also allows to be reset without any involvement of a Z-Wave controller. This procedure should only be used when the primary controller is inoperable.

press the button for at least 10 seconds.

Safety Warning for Mains Powered Devices

ATTENTION: only authorized technicians under consideration of the country-specific installation guidelines/norms may do works with mains power. Prior to the assembly of the product, the voltage network has to be switched off and ensured against re-switching.

Installation



Installing the Flow Stop requires some knowledge. Again there is no need to dismantle your existing installation of water or gas supply.

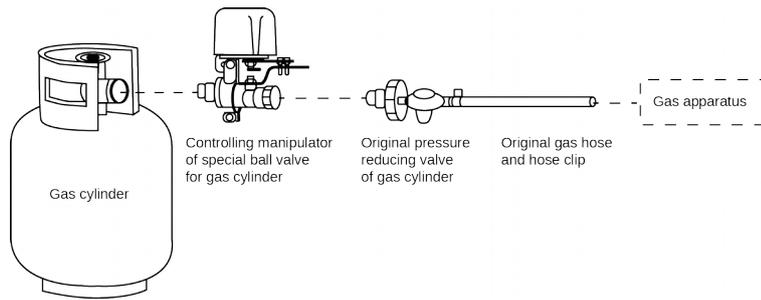
1. Connect the two small mounting plate to the right and the left hand side of the mounting hole of the plastic enclosure using the screw that comes with the two minting plates. If your pipe is very thin you may want to mount them together to narrow the gap between the two angled pieces of the mounting place.
2. Next you need to find the best position of the flow stop to mount. On one hand the angled parts of the mounting plates shall sit tightly on the pipe or the connecting part of the valve itself. On the other hand the rotating axis of the rocker arm needs to sit right above the rotating axis of the valve itself. Is the two rotating axis are not inline operating the flow stop electrically may damage the mechanics.

Last but not least the rocker arm need to “grap” the handle of the valve in order to move it. You have various options to adapt the position of the flow stop on top of the valve. (1) You can adapt the inner gap of the rocker arm. (2) You can move the two mounting plates. (3) You can change the distance of the two mounting plates by having the plastic hole of the enclosure between them or on the side. In extreme positions you can further change the setting using simple distance rings. Mounting Hole Clamp adjuster Clutch Handle Rocker arm Pipe clamp. However there are two constrains to take into account:

1. Never move the rocker arm without disconnecting the clutch by pulling the ring on the lower side of the enclosure.
2. Make sure the rotating axis of the flow stop is in line with the rotating axis of the valve. Once you found the perfect position you can tighten the two angle-shaped mounting plates to the pipe using the pipe clamp provided.

This pipe clamp is large enough to even support pretty thick pipes. After tightening the pipe clamp make a simple mechanical test if the mechanics would move (Don't forget to unlock the clutch by pulling the ring). Now you should power the device and use the local red push button to test electrical operation. Finally include the device into your Z-Wave network.

Its also possible to install the Flow Stop on a gas bottle as shown below.



Inclusion/Exclusion

On factory default the device does not belong to any Z-Wave network. The device needs to be **added to an existing wireless network** to communicate with the devices of this network. This process is called **Inclusion**.

Devices can also be removed from a network. This process is called **Exclusion**. Both processes are initiated by the primary controller of the Z-Wave network. This controller is turned into exclusion respective inclusion mode. Inclusion and Exclusion is then performed doing a special manual action right on the device.

Inclusion

press the red inclusion button 3 times. For Unsecure Inclusion press the red inclusion button 2 times.

Exclusion

press the red inclusion button 3 times

Product Usage

The Flow Stop can be operated in three different ways.

1. **Remotely using Z-Wave wireless on/off commands.** The device will appear in your controller as a simple on/off switch easy to operate. To protect the device from tampering or wrongdoing you can limit the remote operations using the configuration parameter #1.
2. **Local operation by simple pushing the red button.** Any push of the button will result in a change of the status from open to close or vice versa.
3. **Mechanical overwrite** allows opening or closing the valve even in case of a power failure. Disconnect the valve using the internal clutch by pulling the ring. Keep the ring pulled while moving the handle manually. Never move the handle without having the clutch disconnected. As best it will not work, as worst case it will destroy the device. Operating the valve manually only works without power supply. If the Flow Stop is powered and you operate the valve the motor will drive it into previous position immediately.

Node Information Frame

The Node Information Frame (NIF) is the business card of a Z-Wave device. It contains information about the device type and the technical capabilities. The inclusion and exclusion of the device is confirmed by sending out a Node Information Frame. Beside this it may be needed for certain network operations to send out a Node Information Frame. To issue a NIF execute the following action: press the red inclusion button 3 times

Quick trouble shooting

Here are a few hints for network installation if things dont work as expected.

1. Make sure a device is in factory reset state before including. In doubt exclude before include.
2. If inclusion still fails, check if both devices use the same frequency.
3. Remove all dead devices from associations. Otherwise you will see severe delays.
4. Never use sleeping battery devices without a central controller.
5. Don't poll FLIRS devices.
6. Make sure to have enough mains powered device to benefit from the meshing

Association - one device controls an other device

Z-Wave devices control other Z-Wave devices. The relationship between one device controlling another device is called association. In order to control a different device, the controlling device needs to maintain a list of devices that will receive controlling commands. These lists are called association groups and they are always related to certain events (e.g. button pressed, sensor triggers, ...). In case the event happens all devices stored in the respective association group will receive the same wireless command wireless command, typically a 'Basic Set' Command.

Association Groups:

Group Number	Maximum Nodes	Description
1	10	Lifeline
2	10	Valve

Technical Data

Dimensions	70x93x77 mm
Weight	340 gr
Hardware Platform	ZM3102
EAN	0019962009501
IP Class	IP 64
Device Type	Central Controller
Generic Device Class	Binary Switch
Specific Device Class	Binary Switch
Z-Wave Version	4.54.02
Certification ID	ZC08-14030002
Z-Wave Product Id	0x0154.0x0003.0x0512
Valve Pressure	1.6 Mpa
Valve Sizes	1/2 inc, 3/4 inc, 1 inc, 1.25 inc, 1.5 inc
Auto Close Time	10 seconds
Auto Open Time	10 seconds

Supported Command Classes

- Switch All
- Basic
- Manufacturer Specific
- Switch Binary
- Version

Explanation of Z-Wave specific terms

•**Controller** — is a Z-Wave device with capabilities to manage the network. Controllers are typically Gateways, Remote Controls or battery operated wall controllers.

•**Slave** — is a Z-Wave device without capabilities to manage the network. Slaves can be sensors, actuators and even remote controls.

•**Primary Controller** — is the central organizer of the network. It must be a controller. There can be only one primary controller in a Z-Wave network.

•**Inclusion** — is the process of adding new Z-Wave devices into a network.

•**Exclusion** — is the process of removing Z-Wave devices from the network.

•**Association** — is a control relationship between a controlling device and a controlled device.

•**Wakeup Notification** — is a special wireless message issued by a Z-Wave device to announce that it is able to communicate.

•**Node Information Frame** — is a special wireless message issued by a Z-Wave device to announce its capabilities and functions.

Support and Contact

Should you encounter any problem, please give us an opportunity to address it before returning this product. Most questions regarding Z-Wave wireless communication standard can be answered through the international users community such as www.z-wave.info and others. If your question can't be answered there, please use www.popp.eu/support or contact us by email: info@popp.eu

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Declaration of Conformity

Popp hereby declares this device complies with the essential requirements and other relevant prescriptions of Directive 1999/5/EC R&TTE. The complete CE declaration can be found on: www.popp.eu/ce.



All questions regarding this declaration of conformity can be directed to the following address: Popp c/o BID GmbH, Neuer Wall 63, 20148 Hamburg, Germany

Disposal Guidelines

Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities. Contact your local government for information regarding the collection systems available. If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging health and well-being.

