Secure Z-Wave Wall Plug Outdoor

SKU: POPE700397

Quickstart

This is a **secure On/Off Power Switch** for **Europe**. To run this device please connect it to your mains power supply. Adding (Inclusion) and removing (Exclusion) of the device are confirmed by a triple click of the button. Fast blinking LED indicates the factory reset state. The device supports the Security S2 framework with unauthenticated network keys. Please follow the instructions on the central controller when including. The device also supports Smart Start. Please scan the QR code on the outlet cover of the device and your controller will add the the device automatically when powered up.

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. (For more information about frequency regulations please refer to the frequency coverage overview at Sigma Designs Website).

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 Wall Plug Switch Outdoor can be placed between a wall outlet for Schuko plugs (plug type F) and electric devices, plugged in by cord. It can switch all loads up to 3500 W. The plug switch is IP 44 rated and can therefore be used both in dry as well as humid environments in- and outdoor.
Switching is controlled by the local button or wirelessly. The use of the local button and the behavior oon wireless commands can be configured using configuration parameters. Whn detached from the control of local leads the button on the device can be used to trigger scenes in a central gateway. Single click and double click are distinguished.
The device is also measuring the mains voltage supply reporting mains voltage and mains frequency. Addtionally the powr consumption of the attached load is monitored as well.
All metering values an be requested from the central controller and will be reported unsolicited if configured.

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.

Push and hold the button for 10seconds. After 5 seconds the LED on the button will blink fast.

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

The device can be plugged into every standard Schuko power outlet (Plug Type F). Thanks to IP44 rating this device can be used in wet environments such as bathrooms or basements and even outdoor. Do not stack the device!

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

Tripple Click the button for inclusion.

Exclusion

Tripple Click the button.

Product Usage

The device is able to switch electric loads up to 3500 W and can be switched wirelessly or using the local button. The connected load is measured and reported. Trigger values can define unsolicited power reports. The device includes a virtual circuit breaker. The configuration values 26-28 define the behavior of this function. Depending on the configuration parameter 4 the local button with either control the local load or sends scene activation commands to the central gateway.

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. Dont poll FLIRS devices.
6. Make sure to have enough mains powered device to benefit from the meshing

Firmware-Update over the Air

This device is capable of receiving a new firmware 'over the air'. The update function needs to be supported by the central controller. Once the controller starts the update process, perform the following action to confirm the firmware update: Single Click the button.

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	5	Lifeline
2	5	Control other devices on single click of the button. BASIC command (on/off) is sent according to switching state of the load.

Configuration Parameters

Z-Wave products are supposed to work out of the box after inclusion, however certain configuration can adapt the function better to user needs or unlock further enhanced features.

IMPORTANT: Controllers may only allow configuring signed values. In order to set values in the range 128...255 the value sent in the application shall be the desired value minus 256. For example: To set a parameter to 200 it may be needed to set a value of 200 minus 256 = minus 56. In case of a two byte value the same logic applies: Values greater than 32768 may needed to be given as negative values too.

Parameter 1: LED Operation Mode

Defines when the LED shall shine and how

Size: 1 Byte, Default Value: 1

Setting	Description
0	LED off, only blinks on traffic
1	Defined by Parameter 21 and 22

Parameter 2: Auto Off

Defines if and after which time the device shall turn off without any user interaction

Size: 2 Byte, Default Value: 0

Setting	Description
0	no auto off
1 - 65535	seconds

Parameter 3: Switching behavior when receiving wireless OFF

Size: 1 Byte, Default Value: 0

Setting	Description
0	Switches off
1	Ignores Off command
2	Switches on
3	Switches on, when receiving off command and current state is off

This parameter defines if the local button shall control (switch) the load or it is only used to send out scene control commands to the central controller.
Size: 1 Byte, Default Value: 0

Setting	Description
0	Controls Load + Controls Scenes
1	Scene Control Only

Parameter 5: Status after Power Failure
Defines the switching status after a power failure or unplugging
Size: 1 Byte, Default Value: 1

Setting	Description
0	Always off
1	Return to last switching state

Parameter 24: Current Reporting Threshold
*Report the current when the current has changed by more then X *0,01 A. When disabled the device will report every 10 minutes regardless of current change.*
Size: 1 Byte, Default Value: 10

Setting	Description
0	Disabled
1 - 255	* 0,01 A

Parameter 25: Power Reporting Threshold
Report the power when the power has changed by more then X Watt. When disabled the device will report every 10 minutes regardless of power consumption change.
Size: 1 Byte, Default Value: 50

Setting	Description
0	Disabled
1 - 255	W

Parameter 26: Soft Circuit Breaker Threshold
When the power draw exceeds the value set in this parameter for a time set in parameter 28 the soft ciruit breaker will disconnect the load.
Size: 2 Byte, Default Value: 3600

Setting	Description
0	Disabled
1 - 3600	W

Parameter 27: Soft Circuit Breaker Recovery Time
Once the soft circuit breaker tipps and the load is disconnected the load will be automatically reconneced after X seconds. When disabled the load must be repowered manually or with wireless command.
Size: 1 Byte, Default Value: 0

Setting	Description
0	Never
1 - 255	sec.

Parameter 28: Soft Circuit Breaker Delay Time
This delay time defines how fast the soft circuit breaker wil react when the threshold power is exceeded. The power is cut off only if the power draw remains over the threshold level for the defines time.
Size: 1 Byte, Default Value: 10

Setting	Description
0 - 255	* 0,1 sec

Parameter 21: LED Color on OFF state
Defines the behavior of the LED when the load is switched off
Size: 1 Byte, Default Value: 0

Setting	Description
0	Off
1	Red

Parameter 22: LED Color on ON state

Defines the behavior of the LED when the load is switched on

Size: 1 Byte, Default Value: 2

Setting	Description
0	Off
1	Red
2	Green

Parameter 23: Voltage Report Threshold

*Report the voltage when the voltage has changed by more then X * 1 V. When disabled the device will report every 10 minutes regardless of current voltage.*

Size: 1 Byte, Default Value: 100

Setting	Description
0	Disabled
1 - 250	Volt

Technical Data

Dimensions	114x59x92 mm mm
Weight	153 gr
Hardware Platform	ZM5101
IP Class	IP IP44
Voltage	230V
Load	3500 W
Device Type	On/Off Power Switch
Generic Device Class	Binary Switch
Specific Device Class	Binary Power Switch
Firmware Version	03.01
Z-Wave Version	6.01
Z-Wave Product Id	0154.0003.000a

Supported Command Classes

- Basic
- Switch Binary (s2 Unauth);
- Class Sensor Multilevel (s2 Unauth)
- Meter (s2 Unauth)
- Association Grp Info (s2 Unauth)
- Device Reset Locally (s2 Unauth)
- Central Scene (s2 Unauth)
- Zwaveplus Info
- Supervision
- Configuration (s2 Unauth)
- Manufacturer Specific (s2 Unauth)
- Powerlevel (s2 Unauth)
- Protection (s2 Unauth)
- Firmware Update Md (s2 Unauth)
- Association (s2 Unauth)
- Version (s2 Unauth)
- Multi Channel Association (s2 Unauth)
- Security 2

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 announces that 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.