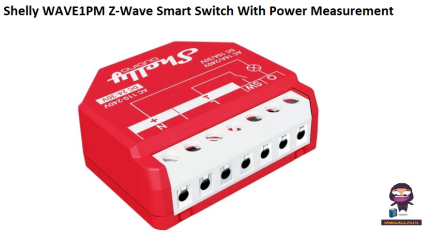

Shelly WAVE1PM Z-Wave Smart Switch With Power Measurement User Manual

Contents

Shelly WAVE1PM Z-Wave Smart Switch With Power Measurement

LEGEND

Device terminals

- N: Neutral terminal
- Live terminal (110–240 V AC)
- SW: Switch/push-button input terminal (controlling O)
- O: Load circuit output terminal
- +: 24-30 V DC positive terminals
- : 24-30 V DC ground terminals
- S: S button (Fig. 3)

Wires

- N: Neutral wire
- L: Live wire (110-240 V AC)
- +: 24–30 V DC positive wire
- GND: 24–30 V DC ground wire

Packaging contents

- Device, user guide, Z-Wave™ DSK label

Z-Wave™ smart switch with power measurement

READ BEFORE USE
This document contains important technical and safety information about the Device, its safe use and installation. **CAUTION**! Before beginning the installation, please read carefully and entirely this guide carefully 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 law or refusal of legal and/or commercial guarantee (if any). Shelly Europe 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.

TERMINOLOGY

Gateway – A Z-Wave™ gateway, also referred to as a Z-Wave™ controller, Z-Wave™ main controller, Z-Wave™ primary controller, or Z-Wave™ hub, etc., is a device that serves as a central hub for a Z-Wave™ smart home network. The term “gateway” is used in this document. button – The Z-Wave™ Service button, which is located on Z-Wave™ devices and is used for various functions such as inclusion (adding), exclusion (removing), and resetting the device to its factory default settings. The term “S button” is used in this document.

Device – In this document, the term “Device” is used to refer to the Shelly Qubino device that is a subject of this guide.

ABOUT SHELLY QUBINO

Shelly Qubino is a line of innovative microprocessor-managed devices, which allow remote control of electric circuits with a smartphone, tablet, PC, or home automation system. They work on Z-Wave™ wireless communication protocol, using a gateway, which is required for the configuration of the Device. When the gateway is connected to the internet, you can control Shelly Qubino devices remotely from anywhere. Shelly Qubino devices can be operated in any Z-Wave™ network with other Z-Wave™ certified devices from other manufacturers. All mains-operated nodes within the network will act as repeaters regardless of vendor to increase the reliability of the network. Devices are designed to work with older generations of Z-Wave™ devices and gateways.

ABOUT THE DEVICE

The Device is a single product that enables control of the on/off function for one electrical appliance such as a bulb, ceiling fan, or IR heater. It measures the power consumption of the connected appliance. The Device is compatible with push buttons and switches (default).

INSTALLATION INSTRUCTIONS

The Device can control a various type of loads (e.g., bulbs) in one electrical circuit up to 16 A. It can be retrofitted into standard electrical wall boxes, behind power sockets and light switches or in other places with limited space. For the installation instructions, refer to the wiring schemes (Fig. 1-2) in this user guide.

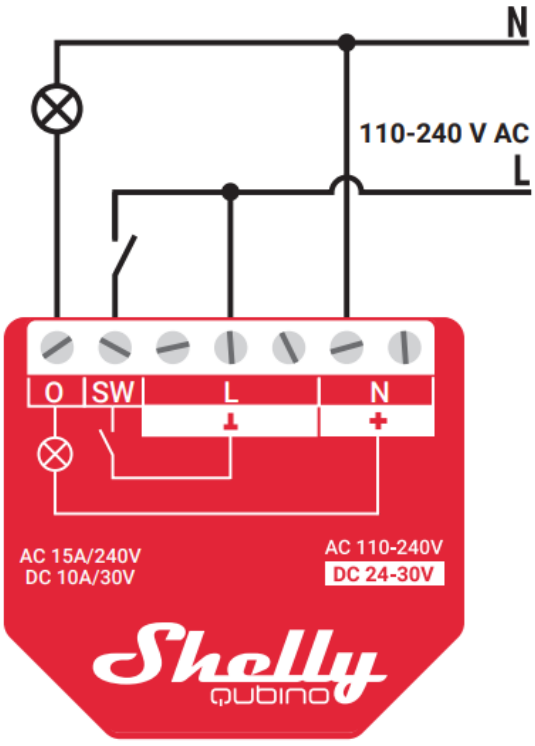

Fig. 1

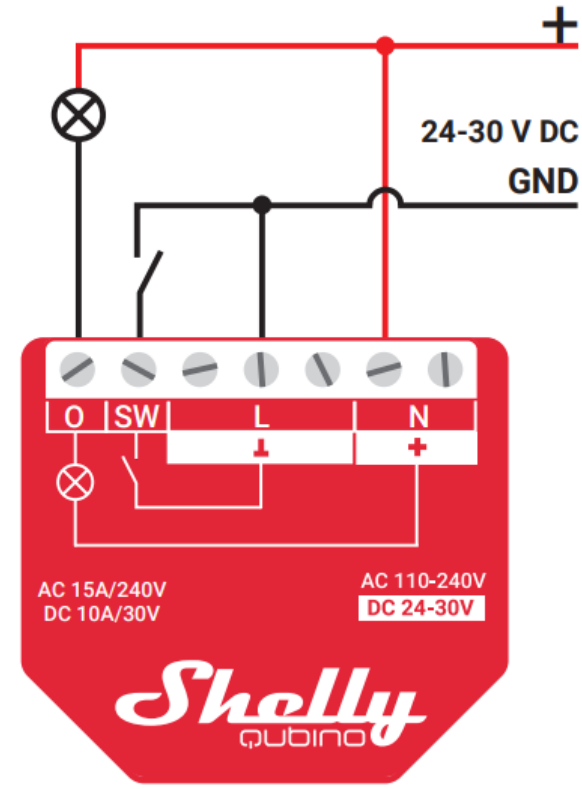

Fig. 2

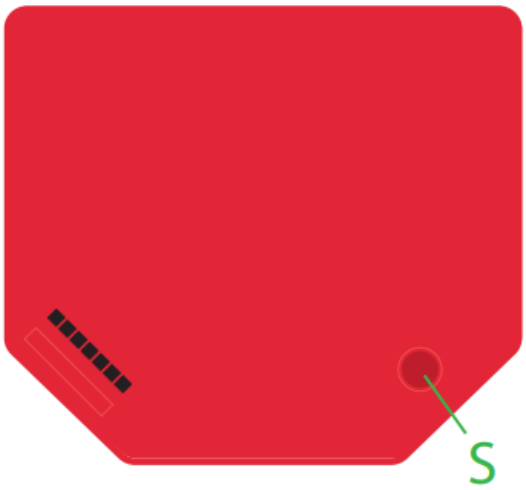

Fig. 3

- **CAUTION!** Danger of electrocution. Mounting/installation of The device to the power grid has to be performed with caution, by a qualified electrician.
- **WARNING!** Danger of electrocution. Every change in the connections has to be done after ensuring there is no voltage present at the Device terminals.
- **CAUTION!** Use the Device only with a power grid and appliances that comply with all applicable regulations. A short circuit in the power grid or any appliance connected to the Device may damage it.
- **CAUTION!** Do not connect the Device to appliances exceeding the given max. load!
- **CAUTION!** Do not shorten the antenna.
- **RECOMMENDATION:** Place the antenna as far away as possible from metal elements as they can cause signal interference.
- **CAUTION!** Connect the Device only in the way shown in these instructions. Any other method could cause damage and/ or injury.
- **CAUTION!** Do not install the Device where it can get wet.
- **CAUTION!** Do not use the Device if it has been damaged!
- **CAUTION!** Do not attempt to service or repair the Device yourself!

- **RECOMMENDATION:** Connect the Device using solid single-core wires with increased insulation heat resistance not less than PVC T105°C (221°F).
- **CAUTION!** Before starting the mounting/installation of the Device, check that the breakers are turned off and there is no voltage on their terminals. This can be done with a phase tester or multimeter. When you are sure that there is no voltage, you can proceed to connect the wires.
- **CAUTION!** Use only one phase AC circuit. Do not use mixed AC and DC circuits.
- **RECOMMENDATION:** For inductive appliances that cause voltage spikes during switching on/off, such as electrical motors, fans, vacuum cleaners and similar ones, RC snubber (0.1 µF / 100 Ω / 1/2 W / 600 V AC) should be connected parallel to the appliance.
- **CAUTION!** Do not allow children to play with the push buttons/ switches connected to the Device. Keep the devices for remote control of Shelly Qubino (mobile phones, tablets, PCs) away from children.

EXTENDED USER GUIDE
For more detailed installation instructions, use cases, and comprehensive guidance on adding/removing the Device to/from a Z-Wave™ network, factory reset, LED signalization, Z-Wave™ command classes, parameters, and much more, refer to the extended user guide at: **https://shelly.link/Wave1PM-KB-US**

SPECIFICATIONS

Power supply	110-240 V AC / 24–30 V DC
Power consumption	< 0.3 W
Power measurement (W)	Yes
Max. switching voltage AC	240 V
Max. Switching current AC	15 A
Max. switching voltage DC	30 V
Max. Switching current DC	10 A
Overheating protection	Yes
Overload protection	Yes
Distance	Up to 40 m indoors (131 ft.) (depends on local co nditions)
Z-Wave™ repeater	Yes
CPU	Z-Wave™ S800
Z-Wave™ frequency bands	908,4 MHz
Maximum radio frequency power transmitted in the frequenc y band(s)	< 25 mW
Size (H x W x D)	37x42x16 ±0.5 mm / 1.46×1.65×0.63 ±0.02 in
Weight	27 g / 0.95 oz.
Mounting	Wall Console
Screw terminals max. torque	0.4 Nm / 3.5 lb
Conductor cross-section	0.5 to 1.5 mm² / 20 to 16 AWG
Conductor stripped length	5 to 6 mm / 0.20 to 0.24 in
Shell material	Plastic
Colour	Red
Ambient temperature	-20°C to 40°C / -5°F to 105°F
Humidity	30% to 70% RH
Max. altitude	2000 m / 6562 ft.

OPERATIONAL INSTRUCTIONS

If the SW is configured as a switch (default), each toggle of the switch will change the output O state to the opposite state – on, off, on, etc. If the SW is configured as a push-button in the Device settings, each press of the push button will change the output O state to the opposite state – on, off, on, etc.

SUPPORTED LOAD TYPES

- Resistive (incandescent bulbs, heating devices)
- Capacitive (capacitor banks, electronic equipment, motor start capacitors)
- Inductive with RC Snubber (LED light drivers, transformers, fans, refrigerators, air-conditioners)

IMPORTANT DISCLAIMER
Z-Wave™ wireless communication may not always be 100% reliable. This Device should not be used in situations in which life and/or valuables are solely dependent on its functioning. If the Device is not recognized by your gateway or appears incorrectly, you may need to change the Device type manually and ensure that your gateway supports Z-Wave Plus™ multi-channel devices.

DISPOSAL & RECYCLING
This refers to the waste of electrical and electronic equipment. It is applicable in the US and other countries to collect waste separately. This symbol on the product or in the accompanying literature indicates that the product should not be disposed of in the daily waste. Wave 1 PM must be recycled to avoid possible damage to the environment or human health from uncontrolled waste disposal and to promote the reuse of materials and resources. It is your responsibility to dispose of the device separately from general household waste when it is already unusable.

FCC NOTES
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. The manufacturer is not responsible for any radio or TV interference caused by unauthorized modification or change to this equipment. Such modifications or changes could void the user's authority to operate the equipment. This equipment has been tested and found to comply with the limits for a Class B digital device, under 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 by 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 harm or 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 the receiver.
- Connect the equipment to 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.

RF exposure statement
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. The device has been evaluated to meet general RF exposure requirements. The device can be used in portable exposure conditions without restriction.

ORDERING CODE: QNSW-001P16US
MANUFACTURER
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Changes in the contact data are published by the Manufacturer
at the official website: **https://www.shelly.com**

Documents / Resources

	Shelly WAVE1PM Z-Wave Smart Switch With Power Measurement [pdf] User Manual WAVE1PM Z-Wave Smart Switch With Power Measurement, WAVE1PM, Z-Wave Smart Switch With Power Measurement, Switch With Power Measurement

References

- Support
- Easy Smart Home Automation
- User Manual