Shelly WAVEPRO2PM 2-Circuit DIN-Mountable Z-Wave Smart Switch User Guide

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Contents

LEGEND

Device terminals:

- **N:** Neutral terminal
- **L:** Live terminal (110–240 V AC)
- **SW (SW1):** Switch/push-button input terminal (controlling O (O1))
- **SW2:** Switch/push-button input terminal
- **I:** Load circuit input terminal
- **O (O1):** Load circuit output terminal (1)

Wires:

- **N:** Neutral wire
- **L1(A):** Load circuit live wire (110-240 V AC)
- **L1(B):** Device power supply live wire (110-240 V AC)

Button:

- **S:** S button

2-circuit DIN-mountable 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 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 of following 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.
S 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 Quinoa 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 devices. 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 reliability of the network. Devices are designed to work with older generations of Z-Wave® devices and gateways

WAVE PRO SERIES

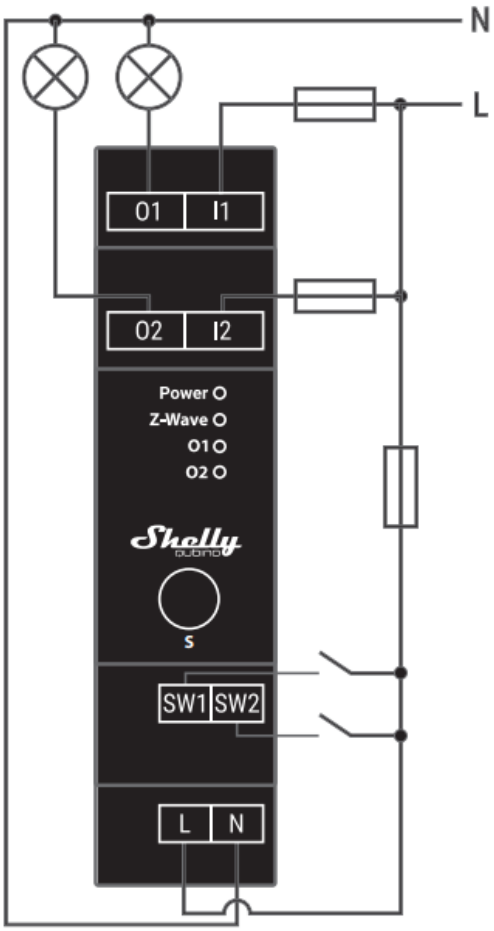
Wave Pro series is a line of devices suitable for homes, offices, retail stores, manufacturing facilities, and other buildings. Pro devices are DIN-mountable inside the breaker box, and highly suitable for new building construction. All Wave Pro devices can be controlled and monitored through the Z-Wave® network.

ABOUT THE DEVICE

The Device is a DIN rail mountable 2-channel smart switch with power measurement. It controls the on/off function for two independent electrical devices with a load up to 16 A per channel (25 A in total). It is compatible with switches (default) and push-buttons.

INSTALLATION INSTRUCTIONS

The Device can be DIN-mounted inside the breaker box. For the installation instructions, refer to the wiring scheme **(Fig. 1)** in this user guide.



CAUTION! Danger of electrocution. Mounting/installation of the Device to the power grid has to be performed with caution, by a qualified electrician.

CAUTION! 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! Allow at least 10 mm of space around each Pro device if you expect currents higher than 5 A per channel.

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!

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 mains voltage tester or multimeter. When you are sure that there is no voltage, you can proceed to connecting the wires.

CAUTION! Do not shorten the antenna.

RECOMMENDATION: Place the antenna as far away as possible from metal elements as they can cause signal interference.

RECOMMENDATION: Connect the Device using solid single-core cables or stranded cables with ferrules. The cables should have insulation with increased heat resistance, not less than PVC T105°C (221°F).

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.

Connect the load to the O1 and O2 terminal of the Device and the Neutral wire, as shown on **Fig. 1**. Connect the Live wire to an i terminal of the Device.
Connect the Live wire to the Device L terminal, and the Neutral wire to the N terminal. Connect the two switches or a push-buttons to the Device SW1 and SW2 terminal and the Live wire.

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 signalisation, Z-Wave® command classes, parameters, and much more, refer to the extended user guide at:
https://shelly.link/WavePro2PM-KB-US

SPECIFICATIONS

Power supply	110-240 V AC, 50/60 Hz
Power consumption	< 0.3 W
Max. switching voltage AC	240 V
Max. switching current AC	16 A per channel, 25 A total
Max. switching voltage DC	N/A
Max. switching current DC	N/A
Overheating protection	Yes
Overload protection	Yes
Over voltage protection	Yes
Power measurement (W)	No
Distance	Up to 40 m indoors (131 ft.) (depends on local conditio n)
Z-Wave® repeater	Yes
CPU	Z-Wave® S800
Z-Wave® frequency bands	908.4 MHz
Maximum radio frequency power transmitted in freque ncy band(s)	< 25 mW
Size (H x W x D)	94x19x69 ±0.5 mm /3.70×0.75×2.71 ±0.02 in
Weight	75 g / 2.65 oz.
Mounting	DIN rail
Screw terminals max. torque	0.4 Nm / 3.54 lbin
Conductor cross section	0.5 to 2.5 mm² / 20 to 14 AWG (green connector)0.5 to 1.5 mm² / 20 to 16 AWG (white connectors)
Conductor stripped length	6 to 7 mm / 0.24 to 0.28 in (green connector)5 to 6 mm / 0.20 to 0.24 in (white connectors)
Shell material	Plastic
Color	Black
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

SW1: If the SW (SW1) is configured as a switch (default), each toggle of the switch will change the output O (O1) state to the opposite state – on, off, on, etc. If the SW (SW1) is configured as a push-button in the Device settings, each press of the push-button will change the output O (O1) state to the opposite state – on, off, on, etc.

SW2: If the SW2 is configured as a switch (default), each toggle of the switch will change the output O2 state to

the opposite state – on, off, on, etc. If the SW2 is configured as a push-button in the Device settings, each press of the push-button will change the output O2 state to the opposite state – on, off, on, etc.

SUPPORTED LOAD TYPES

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

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 recognised 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 Pro 2PM 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 change 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, 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.

- **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 requirement. The device can be used in portable exposure condition without restriction.

ORDERING CODE: QPSW-0A2P16US

MANUFACTURER

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Changes in the contact data are published by the Manufacturer at the official website.

Documents / Resources

	Shelly WAVEPRO2PM 2-Circuit DIN-Mountable Z-Wave Smart Switch [pdf] User Guide WAVEPRO2PM 2-Circuit DIN-Mountable Z-Wave Smart Switch, WAVEPRO2PM, 2-Circuit DIN-Mountable Z-Wave Smart Switch, DIN-Mountable Z-Wave Smart Switch, Mountable Z-Wave Smart Switch, Z-Wave Smart Switch, Smart Switch, Switch

References

- User Manual