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Shelly Wave 1 Mini Z-Wave Smart Switch

Specifications

Power supply	110-240 V AC, 50/60 Hz
Power consumption	< 0.3 W
External protection	10 A, tripping characteristic B or C 6 kA interrupting rating, Energy limiting class 3
Max. switching current AC	8 A
Max. switching voltage AC	240 V
Max. switching voltage DC	30 V
Max. switching current DC	5 A
Overheating protection	Yes
Distance	Up to 40 m indoors (131 ft.) (depends on local conditions)
Z-Wave® repeater	Yes
CPU	Z-Wave® S800

Z-Wave® frequency bands	908.42MHz, 912MHz, 920MHz
Maximum radio frequency power transmitted in frequency band(s)	< 25 mW
Size (H x W x D)	29x35x16 ±0.5 mm / 1.11×1.35×0.63 ±0.02 in
Weight	19 ±1 g / 0.65 ±0.04 oz
Mounting	Wall box
Screw terminals max. torque	0.4 Nm / 3.54 lbin
Conductor cross-section	0.5 to 1.5 mm^2 / 20 to 16 AWG
Conductor stripped length	5 to 6 mm / 0.20 to 0.24 in
Shell material	Plastic
Color	Blue
Ambient temperature	-20°C to 40°C / -5°F to 105°F
Humidity	30% to 70% RH
Max. altitude	2000 m / 6562 ft.

Product Usage Instructions

Installation Instructions

The Wave 1 Mini can be retrofitted into standard electrical wall boxes or behind power sockets and light switches.

Wiring:

1. Connect the load circuit to the Device I and O terminals.
2. Connect the Live wire to the Device L terminal and the Neutral wire to the N terminal

as shown in Fig.1.

3. Connect a switch or push-button to the Device SW terminal and the Live wire.

Operational Instructions

If SW (SW1) is configured as a switch, each toggle of the switch will change the output O (O1) state to the opposite state – on, off, on, etc. If 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 similarly.

Supported Load Types

The product should not be disposed of in daily waste and must be recycled to avoid environmental damage.

LEGEND

Device terminals:

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

Wires:

- N: Neutral wire
- L: Live wire (110-240 V AC)

Button:

- S: S button (Fig.2)

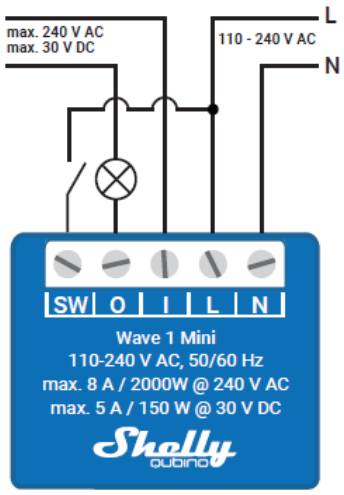

Fig.1/

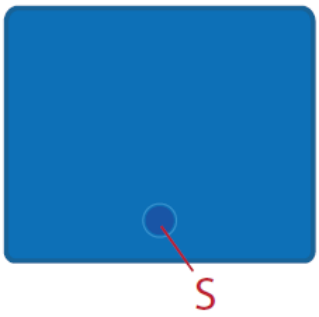

Fig.2/

USER AND SAFETY GUIDE

Z-Wave® smart switch with potential-free contacts

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 the 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.
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 Qubino device that is the subject of this guide.

ABOUT SHELLY QUBINO

Shelly Qubino is a line of innovative microprocessor-managed devices that allow remote control of electric circuits with a smartphone, tablet, PC, or home automation system. They work on the 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 ven, dor 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 small form factor smart switch with potential-free contacts (dry contact). It controls the on/off function for one electrical appliance (with a load of up to 8 A AC or 5 A DC), such as a bulb, ceiling fan, IR heater, electrical lock, garage doors, or irrigation system. It is compatible with switches (default) and push buttons.

INSTALLATION INSTRUCTIONS

The Device can be retrofitted into standard electrical wall boxes, behind power sockets and light switches, or other places with limited space.
For the installation instructions, refer to the wiring schemes (Fig. 1) in this user guide.

- WARNING! Risk of electric shock. Make sure that after in-stalling the device, its screw terminals are not accessible to users and protected by accidental short circuits!
- WARNING! The operation of the service button must be managed by a professional

installer. Risk of electric shock.

- 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 open the Device. It does not contain any parts that can be maintained by the user. For safety and licensing reasons, unauthorized change and/or modification of the Device is not permitted.
- CAUTION! The load current circuit must be secured by a cable protection switch by EN60898-1 (tripping characteristic B or C, max. 10 A rated current, min. 6 kA interrupting rating, energy limiting class 3).
- CAUTION! No SELV/PELV circuits may be connected to the terminals of the inputs and outputs, including the extension inputs.
- 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!
- 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,yo u can proceed to connect the wires.
- 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.
- 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). Away from children.

- 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 VAC) should be connected in parallel to the appliance.
- Connect the load circuit to the Device I/O terminals. Connect the Live wire to the Device L terminal, and the Neutral wire to the N terminal as shown in Fig. 1. Connect a switch or a push-button to the Device SW terminal and the Live wire.

EXTENDED USER GUIDE

For more detailed installation instructions, use cases, and comprehensive guidance on adding or removing the Device to or from a Z-Wave network, factory reset, LED signalization, Z-Wave command classes, parameters, and more, refer to the extended user guide at: https://shelly.link/Wave1Mini-KB-US.

OPERATIONAL INSTRUCTIONS

If the SW (SW1) is configured as a switch, 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.

SUPPORTED LOAD TYPES

Resistive (incandescent bulbs, heating devices)
Inductive with RC Snubber (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 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 Mini US 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 no longer usable.

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, 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 according to 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 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 the general RF exposure requirements. The device can be used in portable exposure conditions without restriction.

ORDERING CODE: QMSW-0A1X8US

- MANUFACTURER
- Shelly Europe Ltd.
- Address: 51 Cherni Vrah Blvd., building 3, floors 2 and 3, Lozenetz Region, Sofia 1407, Bulgaria
- Tel.: +359 2 988 7435
- E-mail: zwave-shelly@shelly.cloud
- Support: https://support.shelly.cloud/
- Web: https://www.shelly.com

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

FAQs

- **How do I configure the switch functionality?**
  You can configure the switch functionality by accessing the Device settings and choosing between switch or push-button mode for SW (SW1).

- **What is the maximum load capacity for Wave 1 Mini?**
  The Wave 1 Mini can handle a maximum load of up to 8 A AC or 5 A DC.
- **Where can I find more detailed installation instructions?**
  You can refer to the wiring schemes in the user guide or visit the extended user guide at https://shelly.link/Wave1Mini-KB-US for comprehensive guidance.

Documents / Resources

	Shelly Wave 1 Mini Z-Wave Smart Switch [pdf] User Guide Wave 1 Mini Z-Wave Smart Switch, Mini Z-Wave Smart Switch, Z-Wave Smart Switch, Smart Switch, Switch

References

- User Manual

Shelly

Mini Z-Wave Smart Switch, Shelly, Smart Switch, switch, Wave 1 Mini Z-Wave Smart Switch, Z-Wave Smart Switch

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