



Shelly

Shelly Wave Pro Dimmer 2PM

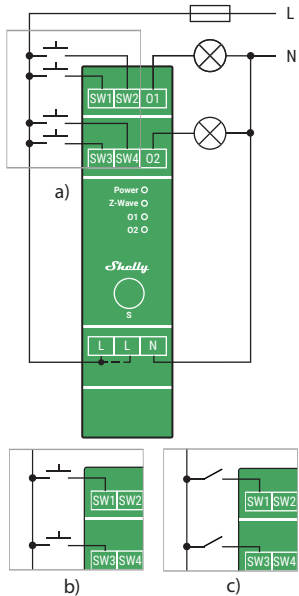


Fig. 1

EN

LEGEND

Fig. 1

Device terminals:

- N: Neutral terminal
- L: Live terminal (110–240 V AC)
- SW1 and SW2: Switch input terminals controlling O1
- SW3 and SW4: Switch input terminals controlling O2
- O1(O1): Load circuit 1 output terminal
- O2: Load circuit 2 output terminal

Wires:

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

Button:

- S: S button

EN

USER AND SAFETY GUIDE

DIN-mountable Z-Wave® two-channel smart dimmer 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 Wave device that is a subject of this guide.

ABOUT SHELLY WAVE

Shelly Wave 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 Wave devices remotely from anywhere. Shelly Wave 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.

SHELLY 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, two-channel smart dimmer. It can work as a standalone or it can also be operated through Z-Wave® home automation. The Device can be accessed, controlled, and monitored remotely from any place where the User has internet connectivity. It is compatible with switches and push-buttons (default).

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 Alter the Antenna (The antenna must not be shortened, lengthened, or modified in any way!)

CAUTION! Do Not Interfere with the Device (Any alteration or modification of the Device is prohibited).

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

CAUTION! The Device may be connected to and control only electric circuits and appliances that comply with the applicable standards and safety norms.

CAUTION! The Device is intended only for indoor use.

CAUTION! Keep the Device away from dirt and moisture.

CAUTION! Connect the Device only to 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 can cause fire, property damage, and electric shock.

CAUTION! The Device and the appliances connected to it, must be secured by a cable protection switch in accordance with EN60898-1 (tripping characteristic B or C, max. 10A rated current, min. 6 kA interrupting rating, energy limiting class 3).

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: When connecting wires to the Device terminals, consider the specified conductor cross section and stripped length. Do not connect multiple wires into a single terminal.

CAUTION! Do not allow children to play with the push-buttons/switches connected to the Device. Keep the devices for remote control of Shelly Wave (mobile phones, tablets, PCs) away from children.

Connect the load to the O1 and O2 terminals of the Device and the Neutral wire, as shown on Fig. 1. Connect the Live wire to the Device L terminal, and the Neutral wire to the N terminal.

If you want to control the dimming with two push-buttons, connect push-buttons to the SW1 and SW2 terminals (for O1 output), to the SW3 and SW4 terminals (for O2 output) and to the Live wire as shown in Fig. 1 a).

If you want to control the dimming with a single push-button, connect the push-buttons to the SW1 terminal (for O1 output), to SW3 terminal (for O2 output) and to the Live wire as shown in Fig. 1 b).

If you want to just turn the light on or off, connect the switches to the SW1 terminal (for O1 output), to the SW3 terminal (for O2 output) and the Live wire as shown in Fig. 1 c).

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/WAVEProDimmer2PM-KB-US>



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
Dimming type	trailing edge
Max. Output power	200 W per channel
Overheating protection	Yes
Overload protection	Yes
Overvoltage protection	Yes
Power measurement (W)	Yes
Distance	Up to 40 m indoors (131 ft.) (depends on local condition)
Z-Wave® repeater	Yes
CPU	Z-Wave® S800
Z-Wave® frequency bands	908.4 MHz
Size (H x W x D)	94 x 19 x 69 ±0.5 mm / 3.7 x 0.75 x 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	Conductor cross section: 0.5 to 2.5 mm ² / 20 to 14 AWG (green connector) 0.5 to 1.5 mm ² / 20 to 16 AWG (white connectors) (solid, stranded, and bootlace ferrules)
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	Lime
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

Single button dimming control

Push - Use to toggle On/Off - every push changes the state of the output.

Double Push - Sets brightness to 100%

Long Push - Use to dim up/down - every push changes the direction

SUPPORTED LOAD TYPES

- Dimmable LED lamps: up to 200 W per channel
- Incandescent bulbs: up to 200 W per channel
- Halogen lamps: up to 200 W per channel
- Iron-core transformer with low-voltage incandescent lamps: up to 200 VA per channel
- Dimmable electronic transformers: 200W

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. Shelly Wave Pro Dimmer 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: QPDM-0A2P01US

MANUFACTURER

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