EN

USER AND SAFETY GUIDE

Shelly Pro Dimmer 2PM

Read before use

This document contains important technical and safety information about the device, its safe use and installation.

⚠**CAUTION:** *Before you start the installation, read carefully and entirely this guide and any other documents accompanying the device. Failure to follow the installation procedures can lead to malfunction, danger to your health and life, violation of law, or refusal of legal and commercial guarantees (if any). Shelly Europe Ltd. is not responsible for any lo ss 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.*

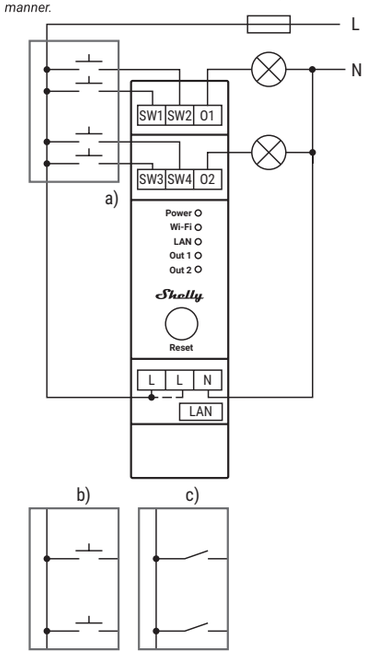
Product Description

Shelly Pro Dimmer 2PM (the Device) is a DIN-rail mountable, two-channel smart dimmer.

The Device can be accessed, controlled, and monitored remotely from any place where the User has internet connectivity, as long as the device is connected to a Wi-Fi router and the Internet.

Shelly Pro Dimmer 2PM has an embedded Web Interface which can be used to monitor and control the device, as well as adjust its settings.

⚠**NOTICE:** *The Device comes with a factory-installed firmware. To keep it up-to-date and secure, Shelly Europe Ltd. provides the latest firmware updates free of charge. You can access the updates through either the embedded web interface or the Shelly Smart Control mobile application, where you can find details about the latest firmware version. The choice to install or not the firmware updates is the user's sole responsibility. Shelly Europe Ltd. shall not be liable for any lack of conformity of the Device caused by the failure of the user to install the available updates in a timely manner.*



Legend

Device terminals:

- **SW1 and SW2:** Switch input terminals controlling O1
- **SW3 and SW4:** Switch input terminals controlling O2
- **O1:** Load circuit 1 output terminal
- **O2:** Load circuit 2 output terminal
- **L:** Live terminal
- **N:** Neutral terminal
- **LAN:** Ethernet RJ45 connector

Wires:

- **N:** Neutral wire
- **L:** Live (110 - 240 V~ 50/60 Hz) wire

Installation Instructions

⚠**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!** *Do not use the device if it shows any sign of damage or defect.*

⚠**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!** *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!** *Connect the Device only in the way shown in these instructions. Any other method could cause damage and/or injury.*

⚠**CAUTION!** *The Device is intended for indoor use only.*

⚠**CAUTION!** *Keep the Device away from liquids and moisture. Do not use the device in places with high humidity.*

⚠**CAUTION!** *The Device can control electric circuits and appliances wirelessly. Proceed with caution! Irresponsible use of the Device may lead to malfunction, danger to your life, or violation of the law.*

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

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.

⚠**RECOMMENDATION:** *Connect the Device using solid single-core wires or stranded wires with ferrules.*

Connect the first load to the O1 terminal of the Device and the Neutral wire as shown in the wiring diagram.

Connect the second load to the O2 terminal of the Device and the Neutral wire.

Connect the Live wire to the L terminal.

If you want to control the dimming with two buttons (per channel), connect buttons to the SW1, SW2, SW3, and SW4 terminals and to the Live wire as shown in Fig. 1 a).

If you want to control the dimming with a single (per channel) button, connect buttons to the SW1 and SW3 terminals and to the Live wire as shown in Fig. 1 b).

If you want to just turn the lights on or off, connect switches to the SW1 and SW3 terminals and the Live wire as shown in Fig. 1 c).

⚠**ATTENTION!** *Do not use buttons or switches with built-in LED or glow-lamp!*

Specifications

- Dimensions (LxWxH): 94x19x69 mm / 3.70x0.75x2.71 in
- Weight: 75 g / 2.7 oz
- Ambient temperature: -20 °C to 40 °C / -4 °F to 104 °F
- Humidity: 30 % to 70 % RH
- Max. altitude: 2000 m / 6562 ft
- Screw terminals max torque: 0.4 Nm / 3.5 lbin
- Conductor cross section:
  - 0,5 to 2,5 mm² / 20 to 14 AWG (green connectors)
  - 0,5 to 1,5 mm² / 20 to 16 AWG (blue connector) (solid, stranded, and bootlace ferrules)
- Conductor stripped length:
  - 6 to 7 mm / 0.24 to 0.28 in (green connectors)
  - 5 to 6 mm / 0.20 to 0.24 in (blue connector)
- Power supply: 110-240 V~ 50/60 Hz
- Power consumption: < 2 W
- External protection: max. 10 A, tripping characteristic B or C, 6 kA interrupting rating, energy limiting class 3
- Max. output power: 200 W per channel
- Dimming type: Leading edge, Trailing edge
- Supported loads:
  - Incandescent
  - Dimmable LED, LEDi and CFL
  - Dimmable electronic transformers
- RF band:2400-2483.5 MHZ
- Max. RF power: < 20 dBm
- Wi-Fi protocol: 802.11 b/g/n
- Wi-Fi operational range (depending on local conditions):
  - up to 50 m / 160 ft outdoors
  - up to 30 m / 100 ft indoors
- Bluetooth protocol: 4.2
- Bluetooth operational range (depending on local conditions):
  - up to 30 m / 100 ft outdoors
  - up to 10 m / 33 ft indoors
- CPU: ESP32-D0WDQ6
- Flash: 8 MB
- Schedules: 20
- Webhooks (URL actions): 20 with 5 URLs per hook
- Scripting: Yes
- MQTT: Yes

Shelly Cloud Inclusion

If you choose to use the Device with the Shelly Smart Control mobile application and cloud service, instructions on how to connect the Device to the Cloud and control it through the Shelly Smart Control app can be found in the mobile application guide. The Shelly mobile application and Shelly Cloud service are not conditions for the Device to function properly. This Device can be used standalone or with various other home automation platforms and protocols.

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

Declaration of conformity

Hereby, Shelly Europe Ltd. declares that the radio equipment type Shelly Pro Dimmer 2PM is in compliance with Directive 2014/53/EU, 2014/35/EU, 2014/30/EU, 2011/65/EU. The full text of the EU declaration of conformity is available at the following internet address:

https://shelly.link/Pro-Dimmer-2PM_DoC

Manufacturer: Shelly Europe Ltd.
Address: 103 Cherni vrah Blvd., 1407 Sofia, Bulgaria
Tel.: +359 2 988 7435
E-mail: support@shelly.cloud
Official website: **https://www.shelly.com**

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

FCC Warning

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.

Note: 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.

NOTE 2: Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Ver1 B4223