



Shelly Wi-Fi Smart Switch with Power Measurement User Guide

[Home](#) » [Shelly](#) » Shelly Wi-Fi Smart Switch with Power Measurement User Guide 

Contents

- [1 Shelly Wi-Fi Smart Switch with Power Measurement](#)
- [2 Product Information](#)
- [3 Product Usage Instructions](#)
- [4 Product Description](#)
- [5 Schematic](#)
- [6 Installation Instructions](#)
- [7 Initial Inclusion](#)
- [8 Specification](#)
- [9 Declaration of conformity](#)
- [10 Documents / Resources](#)
 - [10.1 References](#)
- [11 Related Posts](#)

The Shelly logo, featuring the brand name in a stylized, blue, cursive script.

Shelly Wi-Fi Smart Switch with Power Measurement



Product Information

Specifications

- **Product Name:** Shelly 1 PM Mini Gen3
- **Functionality:** Wi-Fi smart switch with power measurement
- **Rated Voltage:** 110 – 240 VAC
- **Rated Current:** Max. 10A
- **Interrupting Rating:** Min. 6kA
- **Energy Limiting Class:** 3

Product Usage Instructions

Initial Inclusion

If you choose to use the Device with the Shelly Smart Control, follow the steps below for initial inclusion:

1. Ensure that your Shelly 1 PM Mini Gen3 is properly installed and connected to the power supply.
2. Download and install the Shelly Smart Control app on your mobile device.
3. Open the app and create a new account or log in to your existing account.
4. Follow the on-screen instructions to add the Shelly 1 PM Mini Gen3 to your device list.
5. Once the device is added, you can control and monitor it using the app.

Frequently Asked Questions (FAQ)

- **Q: What is the interrupt rating of the Shelly 1 PM Mini Gen3?**
A: The interrupting rating of the Shelly 1 PM Mini Gen3 is a minimum of 6 kA.
- **Q: Can I use the Shelly 1 PM Mini Gen3 with voltages other than 110 – 240 VAC?**
A: No, the Shelly 1 PM Mini Gen3 is designed to work with a voltage range of 110 – 240 VAC only.
- **Q: How can I contact the manufacturer for support?**
A: You can contact the manufacturer, Shelly Europe Ltd., by phone at +359 2 988 7435 or by email at

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.

Product Description

Shelly 1 PM Mini Gen3 (the Device) is a small form factor smart switch with power measurement, which allows remote control of electric appliances.

- It can be retrofitted into standard electrical wall boxes, behind power sockets and light switches, or in other places with limited space.
- 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.
- The Device has an embedded web interface that you can use to monitor, control the Device, and adjust its settings. The web interface is accessible at <http://192.168.33.1> when you are connected directly to the Device access point or at its IP address when you and the Device are connected to the same network.

NOTICE:

The Device comes with 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 promptly.

Schematic

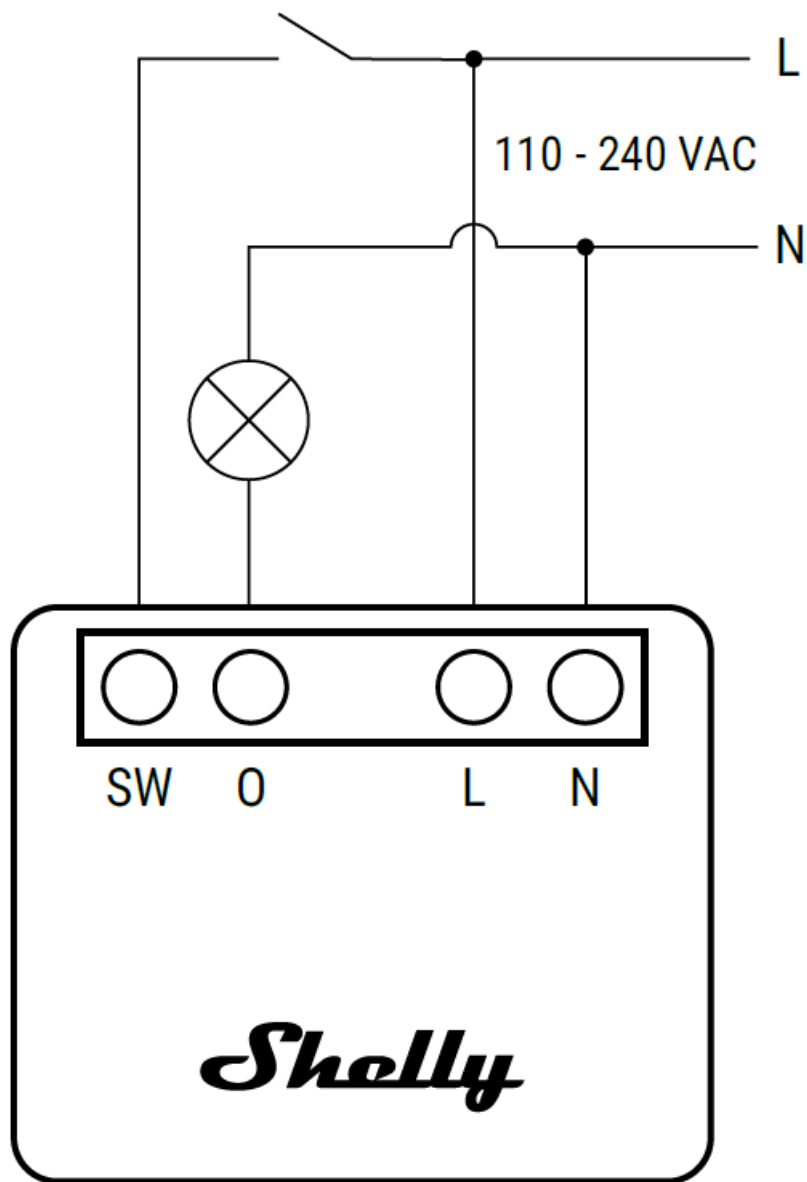


Fig. 1

Legend

- **Device terminals:**
 - **SW:** Switch input terminal
 - **O:** Relay output terminal
 - **L:** Live (110-240V) terminals
 - **N:** Neutral terminals
- **Wires:**
 - **N:** Neutral wire
 - **L:** Live wire (110 – 240 VAC)

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!** 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!** 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 per 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 connect the wires.

RECOMMENDATION:

- Connect the Device using solid single-core wires or stranded wires with ferrules.
- Connect the load to the O terminal of the Device and the Neutral wire, as shown in Fig. 1. Connect the Live wire to an L terminal of the Device.
- Connect a switch or a button to the Device SW terminal and the Live wire.

ATTENTION!

Do not use buttons or switches with built-in LED or glow lamps!

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 μ F / 100 Ω / 1/2 W / 600 VAC) should be connected parallel to the appliance. The RC snubber can be purchased at <https://www.shelly.com/en/products/shop/rc-snubber>.

Initial 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.

Specification

- **Dimensions (HxWxD):** 29x34x16 mm/1.34x1.11x0.63 in
- **Ambient temperature:** -20 °C to 40 °C/-5 °F to 105 °F
- Humidity 30 % to 70 % RH
- Max. altitude 2000 m/6562 ft
- **Power supply:** 110 – 240 VAC, 50/60Hz
- **Electrical consumption:** < 1.2 W
- **Max. switching voltage:** 240 VAC
- **Max. switching current AC:** 8 A
- **Power metering:** Yes
- **Overpower protection:** Yes
- **Overcurrent protection:** Yes
- **Overvoltage protection:** Yes
- **Overtemperature Protection:** Yes
- **RF band:** 2400 – 2495 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:** ESP-Shelly-C38F
- **Flash:** 8 MB
- **Schedules:** 20
- **Webhooks (URL actions):** 20 with 5 URLs per hook
- **Scripting:** Yes
- **MQTT:** Yes

Declaration of conformity

Hereby, Shelly Europe Ltd. declares that the radio equipment type Shelly 1 PM Mini Gen3 complies 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/1pm_mini_gen3_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.

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Documents / Resources

	Shelly Wi-Fi Smart Switch with Power Measurement [pdf] User Guide Wi-Fi Smart Switch with Power Measurement, Smart Switch with Power Measurement, Switch with Power Measurement, Power Measurement, Measurement
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References

- [Shelly - Shelly](#)
- [RC Snubber - All products - Products - Shelly](#)
- [User Manual](#)