Shelly Plus 1PM 1 Channel 16A WiFi-Operated Relay Switch User Guide

Contents

USER & SAFETY GUIDE

Shelly Plus 1PM
This document contains important technical and safety information about the device, its safe use, and its installation.
⚠**CAUTION**! Before beginning the installation, please read this guide and any other documents accompanying the device carefully and completely. 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). Allterco Robotics EOOD 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.

Introduction to Shelly

Shelly® is a line of innovative microprocessor-managed devices, which allow remote control of electric appliances through a mobile phone, tablet, PC, or home automation system. Shelly® devices can work standalone in a local Wi-Fi network or they can also be operated through cloud home automation services. Shelly® devices can be accessed, controlled, and monitored remotely from any place the User has Internet connectivity, as long as the devices are connected to a Wi-Fi router and the Internet. Shelly® devices have integrated web servers, through which the user may adjust, control and monitor them. The cloud function could be used if it is activated through the web server of the device or the settings in the Shelly Cloud mobile application. The user can register and access Shelly Cloud using either Android or iOS mobile application, or with any internet browser at **https://my.shelly.cloud/**

Shelly® Devices have two Wi-Fi modes – Access Point (AP) and Client mode (CM). To operate in Client Mode, a Wi-Fi router must be located within the range of the device. Devices can communicate directly with other Wi-Fi devices through HTTP protocol. An API is provided by Allterco Robotics EOOD. For more information, please visit: h**ttps://shelly-api-docs.shelly.cloud/#shelly-family-overview**. or contact us at: **developers@shelly.cloud**

Shelly® Plus series offers PM products for real-time precise power measurement.

Control your home with your voice

Shelly® devices are compatible with Amazon Alexa and Google Home-supported functionalities. Please see our step-by-step guide on: **https://shelly.cloud/support/compatibility/**

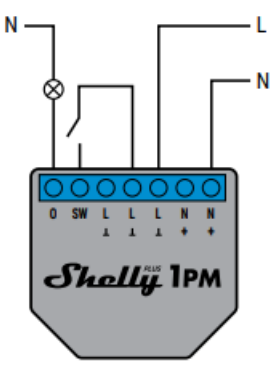

fig.1

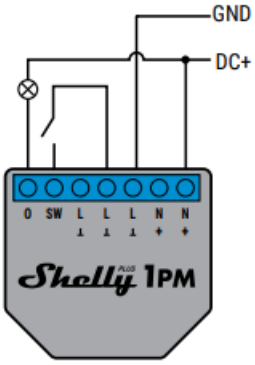

fig.2

- Connecting to the power grid with a power supply of 110-240 V AC (fig. 1), or 24-30 V DC* (fig.2).

  * without power metering Legend
- N: Neutral terminal/wire
- L: Live (110-240V) terminal/wire
- O: Output terminal
- SW: Switch terminal
- +: DC positive terminal
- ⊥: DC ground terminal
- GND: DC ground wire
- DC+: DC positive (24-30 V) wire

Installation Instructions

The Wi-Fi Relay Switch Shelly® Plus 1PM (the Device) can control 1 electrical circuit up to 3.5 kW. It can be retrofitted into a standard in-wall console, behind power sockets and light switches, or in other places with limited space.

⚠**CAUTION!** Danger of electrocution. The mounting/installation of the Device should be done by a qualified person (electrician).

⚠**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 may be connected to and may control electric circuits and appliances only if they comply with the respective standards and safety norms. Short

a circuit in the power grid or any appliance connected to the Device may damage the Device.
⚠**RECOMMENDATION!** Connect the Device using solid single-core cables with increased insulation heat resistance not less than PVC T105°C.

Before starting, wire check that the breakers are turned off and there is no voltage on their terminals. This can be done with a phase meter or multimeter. When you are sure that there is no voltage, you can start wiring the cables according to fig.1, if you are using an AC power supply. Connect the load to the “O” terminal of the Device and the Neutral wire. Connect the Live wire to an “L” terminal of the Device. Connect the Neutral wire to an “N” terminal of the device. Connect the switch to the “SW” and any of the unused “L” terminals of the Device. If you are using a DC power supply, connect the wires according to fig 2. Connect the load to the “O” terminal of the Device and the DC+ wire. Connect the GND wire to a “+ ” terminal of the Device. Connect the DC+ wire to a “+ ” terminal of the device. Connect the switch to the “SW” and any of the unused “ ⊥” terminals of the Device.

⚠**CAUTION!** Use only one phase AC circuit. Do not use mixed AC and DC circuits.
⚠**RECOMMENDATION** For inductive loads, which cause voltage spikes during switchings, such as electrical motors, fans, vacuum cleaners, refrigerators and similar ones, RC snubber (0.1µF / 100Ω / 1/2W / 600V AC) should be wired in parallel with the load. RC snubbers can purchase at **https://shop.shelly.cloud/rc-snubber-wifi-smart-home-automation**. Initial inclusion You can choose to use Shelly® with the Shelly Cloud mobile application and Shelly Cloud service. Instructions on how to connect your device to the Cloud and control it through the Shelly App can be found in the “App guide”. You can also familiarize yourself with the instructions for Management and Control through the embedded Web interface at 192.168.33.1 in the WiFi network, created by the Device.
⚠**CAUTION!** Do not allow children to play with the button/ switch connected to the Device. Keep the Devices for remote control of Shelly (mobile phones, tablets, PCs) away from child dren.

Specification

- AC power supply: 110-240 V
- DC power supply: 24-30 V
- Power metering: YES
- Max load: 16A/240V
- Dimensions (HxWxD): 42x38x17 mm
- Scripting (mjs): YES
- MQTT: YES
- Temperature Protection: YES
- URL Actions: 20
- Scheduling: 50
- Wi-Fi: YES
- Bluetooth: v4.2
- Basic/EDR: YES
- Bluetooth modulation: GFSK, π/4-DQPSK, 8-DPSK
- Controlled elements: 1 electrical circuits (max 30 V in DC mode).
- Controlling elements: 1 relay
- Working temperature: -20°C up to 40°C
- Electrical consumption: < 1.2 W
- CPU: ESP32
- Flash: 4MB
- Operational range: (depending on terrain and building structure): up to 50 m outdoors, up to 30 m indoors
- Radio signal power: 1mW

- Radio protocol: WiFi 802.11 b/g/n
- RF output Wi-Fi: 13.38 dBm
- RF output Bluetooth: 4.93 dBm
- Frequency Wi-Fi : 2412-2472 MHz; (Max. 2495 MHz)
- Frequency Bluetooth: TX/RX: 2402- 2480 MHz (Max. 2483.5MHz)

Declaration of conformity

Hereby, Allterco Robotics EOOD declares that the radio equipment type Shelly Plus 1PM 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.cloud/knowledge-base/devices/shelly-plus-1pm/**
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Tel.: +359 2 988 7435
E-mail: **support@shelly.cloud**
Web: **https://www.shelly.cloud** Changes in the contact data are published by the Manufacturer at the official website of the Device **https://www.shelly.cloud** All rights to trademark Shelly® and other intellectual rights associated with this Device belong to Allterco Robotics EOOD. ⊥

Documents / Resources

	**Shelly Plus 1PM 1 Channel 16A WiFi-Operated Relay Switch** [pdf] User Guide Plus 1PM, 1 Channel 16A WiFi-Operated Relay Switch, Plus 1PM 1 Channel 16A WiFi-Operated Relay Switch

References

- Shelly Cloud
- Shelly Cloud
- Welcome to Shelly Technical Documentation | Shelly Technical Documentation
- Shelly - Shelly
- Shelly Plus 1PM
- Shelly Smart Control
- Shelly Shop USA
- Shelly Shop USA
- Shelly Cloud - Shelly
- Shelly - Shelly