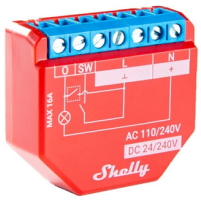

Shelly Plus 1PM Bluetooth Wi-Fi Smart Light Switch User Guide

USER & SAFETY GUIDE

Contents

Shelly Plus 1 PM

This document contains important technical and safety information about the device and its safe use and installation. 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 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 Devices, which allow remote control of electric appliances through a mobile phone,

tablet, PC, or home automation system. Shelly® may work standalone on the local WiFi network, without being managed by a home automation controller, or it can also work 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 WiFi router and the Internet. Shelly® has an integrated web server, through which the User may adjust, control and monitor the Device. 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 WiFi modes – Access Point (AP) and Client mode (CM). To operate in Client Mode, a WiFi router must be located within the range of the Device. Devices can communicate directly with other WiFi devices through HTTP protocol. An API can be provided by the Manufacturer. Shelly® Plus series offers PM-products for real-time precise power measurement.

⚠ **CAUTION!** Before beginning the installation please read the accompanying documentation carefully and completely. Failure to follow recommended procedures could lead to malfunction, danger to your life or violation of the law. Allterco Robotics is not responsible for any loss or damage in case of incorrect installation or operation of this Device.

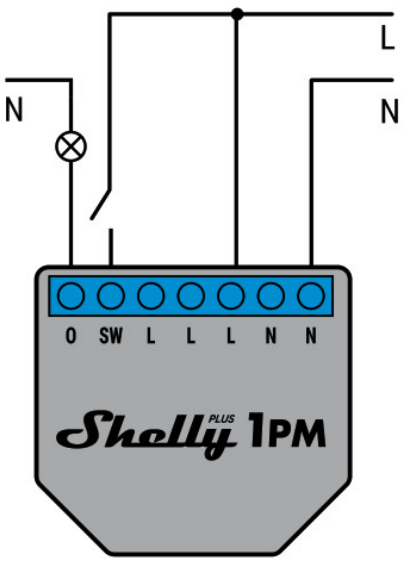

fig.1

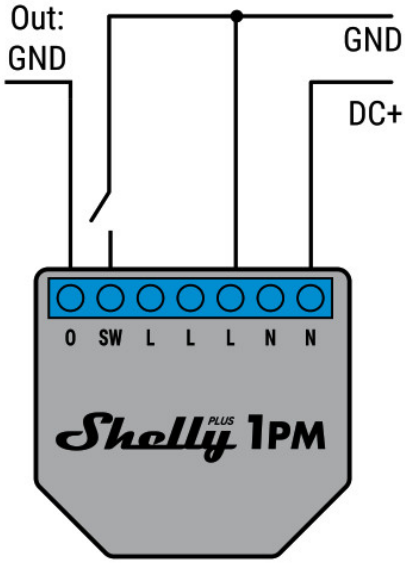

fig.2

Legend

- N – Neutral input (Zero)
- L – Line input (110-240V)
- O – Output
- SW – Switch (input) controlling O

Installation Instructions

The WiFi Relay Switch Shelly® Plus 1 PM may control 1 electrical circuit up to 3.5 kW. It is intended to be mounted into a standard in-wall console, behind power sockets and light switches or other places with limited space. Shelly may work as a standalone device or as an accessory to another home automation controller.
⚠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 exceed- ing 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!** Use the Device only with a power grid and appliances which comply with all applicable regulations. short circuit in the power grid or any appliance connected to the Device may damage the Device.

⚠**RECOMMENDATION!** The Device may be connected to and may control electric circuits and appliances only if they comply with the respective standards and safety norms.
⚠**RECOMMENDATION!** The Device may be connected with solid single-core cables with increased heat resistance to insulation not less than PVC T105°C. Before installing/mounting the Device ensure that the grid is powered off (turned down breakers). Connect the Relay to the power grid and install it in the console behind the switch/power socket following the scheme that suites the desired purpose: Connecting to the power grid with power supply 110-240V AC

(fig. 1) or 24-240V DC* Connecting to the power grid (fig.2). * without power metering For inductive appliances, those that cause voltage spikes during switching on electrical motors, as fans, vacuum cleaners, and similar ones, RC snubber (0.1µF / 100Ω / 1/2W / 600V AC) should be wired between Output and Neutral of the circuit. 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. Install a wire from “O” to the load and from the load to the Neutral. Install also a wire from the Fuse to “L”. Connect the Neutral to the device.The last step is to install a cable from the switch to the terminal SW. For more information, please visit: **http://shelly-api-docs.shelly.cloud**/#shelly-family-overview or contact us at: **developers@shelly.cloud**

INITIAL INCLUSION

You may choose if you want 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.

Specification

- Power metering: YES
- Max load: 16A/240V
- Working temperature: 0°C up to 40°C
- 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. 2483.5 MHz)
- Operational range (depending on local construction): – up to 50 m outdoors, up to 30 m indoors
- Dimensions (HxWxL): 41x36x16 mm
- Electrical consumption: < 1.2 W
- Mounting: Wall box
- Wi-Fi: YES
- Bluetooth: v4.2
- Basic/EDR: YES
- Bluetooth modulation: GFSK, π/4-DQPSK, 8-DPSK
- Bluetooth frequency TX/RX: 2402 – 2480MHz
- Temperature Protection: YES
- Scripting (mjs): YES
- HomeKit support: YES
- MQTT: YES

- URL Actions: 20
- Scheduling: 50
- AC power supply: 110-240 V
- DC Power supply: 24-240 V
- CPU: ESP32
- Flash: 4MB

Technical Information

- Control through WiFi from a mobile phone, PC, automation system or any other Device supporting HTTP and/or UDP protocol.
- Microprocessor management.
- Controlled elements: 1 electrical circuits/appliances.
- Controlling elements: 1 relays.
- Shelly may be controlled by an external button/switch.

⚠**CAUTION!** Danger of electrocution. Mounting the Device to the power grid has to be performed with caution.
⚠**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 children.

Declaration of conformity

Hereby, Allterco Robotics EOOD declares that the radio equipment type Shelly Plus 1 PM is in compliance with Directive 2014/53/EU, 2014/35/EU, 2014/30/EU, 011/65/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/
Manufacturer: Allterco Robotics EOOD
Address: Bulgaria, Sofia, 1407, 103 Cherni brah Blvd.
Tel.: +359 2 988 7435
E-mail: **support@shelly.cloudWeb**:
http://www.shelly.cloud
Changes in the contact data are published by the Manufacturer at the official website of the Device http://**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 Bluetooth Wi-Fi Smart Light Switch** [pdf] User Guide Plus 1PM, Bluetooth Wi-Fi Smart Light Switch