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Shelly PRO-1PM-1163 Circuit Wifi Relay Switch User Guide

Contents

Shelly PRO-1PM-1163 Circuit Wifi Relay Switch

USER AND SAFETY GUIDE

1 CIRCUIT WI-FI RELAY SWITCH WITH POWER MEASUREMENT SHELLY PRO 1PM
Read before use
This document contains important technical and safety infor-mation about the device, its safety use and installation.

CAUTION! Before beginning the installation, please read this guide and any other documents accompanying the device care-fully 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 in-structions in this guide.

Product Introduction

Shelly® is a line of innovative microprocessor-managed devic-es, 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 applica-tion. 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: **https://shelly-api-docs.shelly.cloud/#shelly-family-overview**

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

Shelly® Pro Series
Shelly® Pro series is a line of Devices suitable for homes, offices, retail stores, manufacturing facilities, and other

buildings. Shelly® Pro devices are DIN mountable inside the breaker box, and highly suitable for new building construction. Connectivity for all Shelly® Pro devices can be through Wi-Fi or LAN Internet connection, and Bluetooth can be used for the inclusion pro-cess. Shelly® Pro series offers PM products for real-time precise power measurement.

Legend:
Device terminals:

- **O:** Load circuit output terminal
- **I:** Load circuit input terminal
- **SW1**: Switch (controlling O1*) input terminal
- **SW2:** Switch* input terminal
- **L:** Live (110-240V) terminal
- **N:** Neutral terminals
- **+12:** 12V (10.5V to 13.5V) DC power supply terminal
- **LAN:** Local Area Network RJ 45 connector

Wires:

- **N:** Neutral wire
- **L:** Live (110-240V) wire
- **+:** 12 V DC power supply positive wire
- **-:** 12 V DC power supply negative wire

* Can be reconfigured

Installation Instructions

The Shelly Pro 1PM smart relay (the Device) by Allterco Ro-botics is intended to be mounted into a standard switchboard on DIN rail, next to the circuit breakers. Shelly can work as a standalone device or as an accessory to a home automation controller. Shelly Pro 1PM is a single-phase relay that supports power metering.

- CAUTION! Do not install the device at a place that is possible to get wet.
- CAUTION! Danger of electrocution. Mounting/ Installation of the Device to the power grid has to be performed with caution, bya qualified electrician.
- CAUTION! Danger of electrocution. Every change in the connections has to be done after ensuring there is no voltage pres-ent at the Device terminals.
- CAUTION! Do not connect the Device to appliances exceed-ing the given max load!
- CAUTION! Use the Device only with a power grid and appli-ances which comply with all applicable regulations. A short cir-cuit in the power grid or any appliance connected to the Device may damage the Device.
- CAUTION! Connect the Device only in the way shown in these instructions. Any other method could cause damage and/or injury.
- ! The Device may be connected to and may control electric circuits and appliances only if they comply with the re-spective standards and safety norms.
- RECOMMENDATION Connect the Device using solid sin-gle-core cables with increased insulation heat resistance not less than PVC T105°C. Connect the Device to the power grid and install it in the switch-board as shown in the schemes and following the Safety In-structions. Before starting installing/mounting the Device ,

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 proceed to wiring the cables.
- If you are using AC for the Device and the load circuit (fig.1),
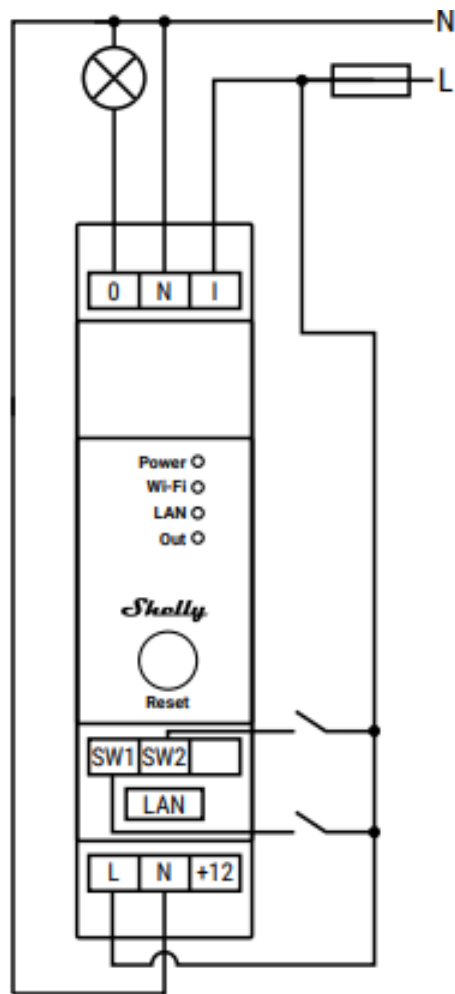
(fig.1)

connect both N terminals to the Neutral wire and the L terminal to the circuit breaker. Connect the 2 switch circuits to the S1 and S2 input terminals and the circuit breaker. Connect the load circuit to the O terminal and the Neutral wire. Connect the I ter-minal to the circuit breaker.

- If you are using 12 V DC to power the Device (fig. 2), connect the positive wire to the +12 terminal and the negative wire to the L terminal. Connect the 2 switch circuits to the S1 and S2 input terminals and the negative wire.
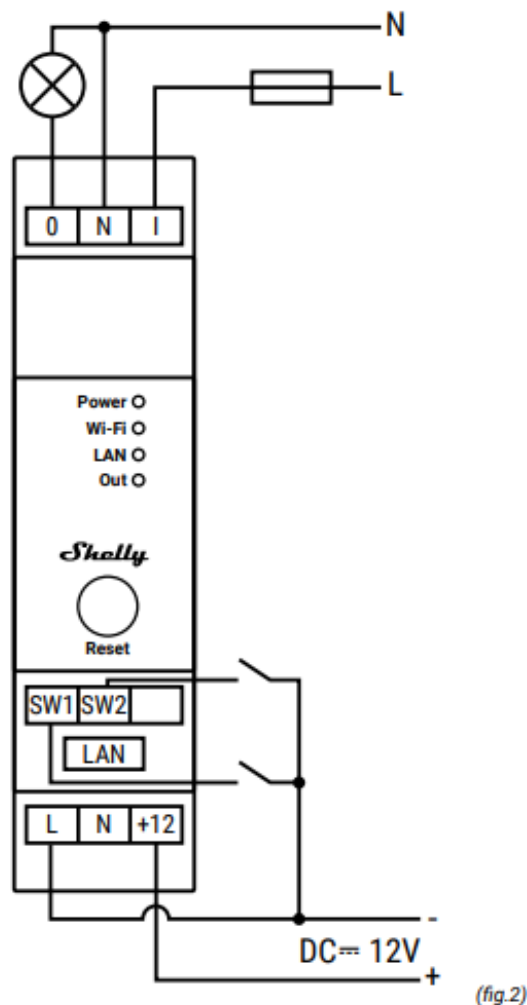
(fig.2)

- Connect the load circuit to the O terminal and the Neutral wire. Connect the I terminal to the circuit breaker.
- Connect the Negative wire to the N terminal, which is between the I and O terminals.
- CAUTION! Do not connect the Negative wire to the N terminal, which is between the L and +12 terminals."
- RECOMMENDATION For inductive loads, which cause volt-age spikes during switching, 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 purchased at **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" included in the box. You can also familiarize yourself with the instructions for Man-agement and Control through the embedded Web interface at 192.168.33.1 in the Wi-Fi 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 chil-dren.

Specifications

- Mounting – DIN rail
- Dimensions (HxWxL): 68.5×18.5×89.5 mm
- "Power supply: 110 – 240 V AC, 50/60 Hz
- 12V DC (10.5 V – 13.5 V), 250 mA "

- Power metering: Yes
- Electrical consumption: <3 W
- Working temperature: 0 °C – 40 °C
- Controlling elements: 1 relays
- Controlled elements: 1 AC circuit
- Max switching voltage: 240 V
- Max current per channel: 16 A
- Dry contacts: No
- Temperature Protection – YES
- Wi-Fi – YES
- Bluetooth – YES
- LAN – YES
- Scripting (mjs) – YES
- MQTT – YES
- CoAP – No
- URL Actions – 20
- Scheduling – 50
- Add-on support – YES
- CPU – ESP32
- Flash – 8MB
- Radio protocol: Wi-Fi 802.11 b/g/n
- Radio signal power: 1mW
- Frequency Wi-Fi : 2412-2472 MHz; (Max. 2495 MHz)
- RF output Wi-Fi: <20 dBm
- Operational range (depending on terrain and building struc-ture): up to 50 m outdoors, up to 30 m indoors
- Frequency Bluetooth: TX/RX: 2402- 2480 MHz (Max. 2483.5MHz)
- RF output Bluetooth: <10 dBm

Led indicators

- **Power (red):** Red light indicator will be on if power is connected. Wi-Fi (blue): Blue light indicator will be on if the Device is in AP mode.
- **Wi-Fi (red):** Red light indicator will be on if the Device is in STA mode and not connected to a local Wi-Fi network.
- **Wi-Fi (yellow):** Yellow light indicator will be on if the Device is in STA mode and connected to a local Wi-Fi network. Not connect-ed to Shelly Cloud or ShellyCloud disabled.
- **Wi-Fi (green):** Green light indicator will be on if the Device is in STA mode and connected to a local Wi-Fi network and to the Shelly Cloud.
- **Wi-Fi (flashing):** The light indicator will be flashing Red/Blue if OTA update is in progress.
- **LAN (green):** Green light indicator will be on if LAN is connect-ed.
- **Out1 (red):** Red light indicator will be on if the Output 1 rellay is closed.
- **Out2 (red):** Red light indicator will be on if the Output 2 rellay is closed.

Declaration of conformity

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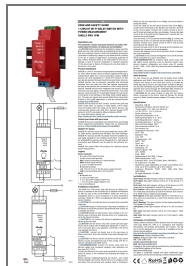**E-mail: support@shelly.cloud**
Web: http://www.shelly.cloud
Changes in the contact data are published by the Manufacturer at the official website of the Device
http://www.shelly.cloud
All rights to trademark Shelly® and other intellectual rights associated with this Device belong to Allterco Robotics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

Documents / Resources

	Shelly PRO-1PM-1163 Circuit Wifi Relay Switch [pdf] User Guide PRO-1PM-1163 Circuit Wifi Relay Switch, PRO-1PM-1163, Circuit Wifi Relay Switch, Relay Switch, Switch

References

- ꧁ **Shelly - Shelly**
- ꧁ **Shelly Cloud**
- ꧁ **Welcome to Shelly Technical Documentation | Shelly Technical Documentation**
- ꧁ **Shelly Smart Control**