Shelly PRO 4PM 4 Circuit Wi-Fi Relay Switch User Guide

PRO 4PM 4 Circuit Wi-Fi Relay Switch
User Guide

USER AND SAFETY GUIDE
4 CIRCUIT WI-FI RELAY SWITCH WITH POWER MEASUREMENT
SHELLY PRO 4PM

Contents

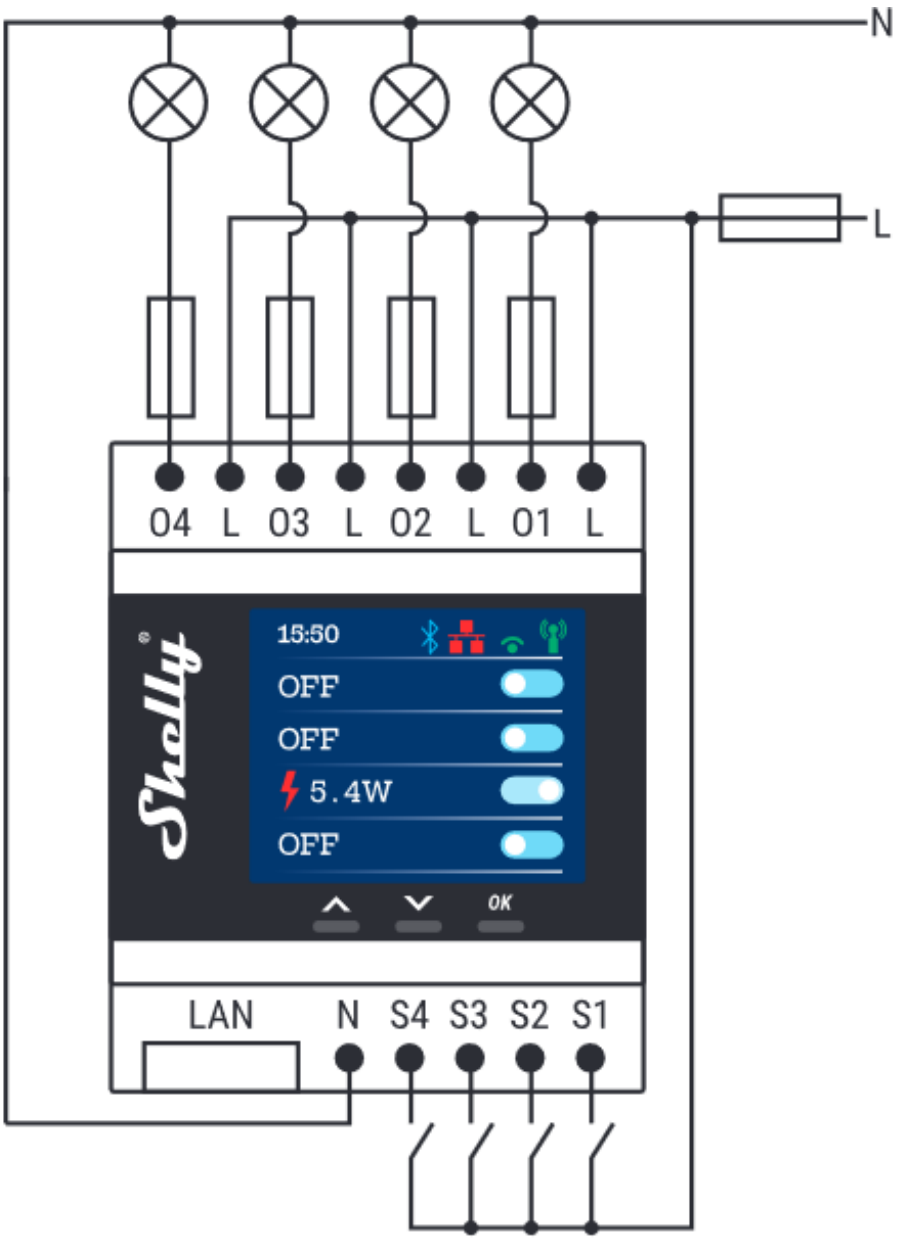
PRO 4PM 4 Circuit Wi-Fi Relay Switch

Read before use
This document contains important technical and safety information about the device, its safety use and 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.

Product Introduction

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 WiFi devices through HTTP protocol. An API is provided by Allterco Robotics EOOD. The User can register and access Shelly Cloud, using either Android or iOS mobile applications, or any internet browser and the website: **https://my.shelly.cloud/**
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.

All Shelly® Pro devices can be controlled and monitored through Wi-Fi and LAN connections. Bluetooth connection can be used for the inclusion process. Shelly® Pro series offers PM products for real-time precise power measurement.



(fig.1)

Legend:

- N: Neutral terminal / wire
- L: Live (110-240V) terminal / wire
- O1, O2, O3, O4: Load output terminals
- S1, S2, S3, S4: Switch (input) terminals controlling O1,O2, O3, O4
- LAN: Local Area Network RJ 45 connector

* The cables connecting the four L terminals to the 40 A circuit breaker must be the same length!

Installation Instructions

The Shelly Pro 4PM smart relay by Allterco Robotics is intended to be mounted into a standard switchboard on DIN rail, next to the circuit breakers in order to control and monitor the electric power through it. Shelly can work as a standalone device or as an accessory to a home automation controller.
⚠ **CAUTION!** Danger of electrocution. Mounting/ Installation of the Device to the power grid has to be performed with caution, by a qualified person (electrician).

⚠ **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.
⚠ **CAUTION!** Danger of electrocution. Even when the Device is turned off, it is possible to have voltage across its terminals. Every change in the connection of the terminals has to be done after ensuring all local power is powered off/disconnected.
⚠ **CAUTION!** Do not connect the Device to appliances exceeding the given max load!
⚠ **CAUTION!** Use the Device only with a power grid and appliances which comply with all applicable regulations. A short circuit 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.
⚠ **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!** Connect the Device using solid single-core cables with increased insulation heat resistance not less than PVC T105°C.

Connection to the grid

Shelly Pro 4PM relay switch (4 channel)
Connect the relay to the power grid and install it in the switchboard as shown in the scheme (fig. 1) and following the Safety Instructions. Before installing/mounting the device,
ensure that the grid is powered off (turned down breakers) and in compliance with the Safety Norms.
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 Device according to fig.1. Connect the 4 load circuits to the O1, O2, O3, O4 terminals and the Neutral wire. Use 4 wires with the same length to connect the 4 L terminals to the 40 A circuit breaker. Connect the Neutral wire to the Device N terminal. Finally connect the 4 switch circuits to the S1, S2, S3,S4 input terminals and the 40 A circuit breaker. 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.
⚠ **CAUTION!** Do not install the device at a place that is possible to get wet.

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 Wi-Fi network, created by the Device.

Specification

- Power supply: 110-240V; 50/60Hz AC
- Max current per channel: 16A
- Total max. current of all outputs: 40 A
- Ambient temperature: 0°C – 40°C
- Frequency: 2412-2472 MHz; (Max. 2483 MHz)
- Operational range (depending on local construction):
  – up to 50 m outdoors,
  – up to 30 m indoors
- Dimensions (HxWxL): 57,5×53,4×90 mm
- Electrical consumption: < 4 W
- Mounting – DIN rail

- Wi-Fi – YES
- Bluetooth – v.4.2
- Basic/EDR: YES
- Bluetooth modulation: GFSK, π/4-DQPSK, 8-DPSK
- Bluetooth frequency TX/RX – 2402 – 2480MHz
- RF output Wi-Fi: 13.83 dBm
- RF output Bluetooth: 4.97 dBm
- LAN – YES
- Radio signal power: 1mW
- Radio protocol: Wi-Fi 802.11 b/g/n
- Temperature Protection – YES
- Scripting (mjs) – YES
- MQTT – YES
- COAP – No
- URL Actions – 20
- Scheduling – 50
- Add-on support – No
- CPU – ESP32
- Flash – 8MB
- Complies with EU standards: RED 2014/53/EU; LVD 2014/35/EU; EMC 2014/30/EU; RoHS2 2011/65/EU

Display

Home Screen – Shows the status of the circuit (on/off), current power consumption and connection status. By pressing the “OK” button and holding it for a few seconds you can go to the Menu. From there you can select with the arrow buttons and pressing the “OK”:

- **Main** – pressing the “OK” button will return you to the Home screen
- Network – set on/off :
  – Wi-Fi
  – Ethernet (LAN)
  – Bluetooth
- Status – status of the device
- Maintenance
  – Wi-Fi reset
  – Factory reset
  – Reboot

Technical Information

- Control through Wi-Fi from a mobile phone, PC, automation system or any other Device supporting HTTP and/ or UDP protocol.
- Microprocessor management.
- Controlled elements: 4 electrical circuits/ appliances.

- Controlling elements: 4 relays.
- Shelly Pro 4PM may be controlled by an external buttons/switches.

Declaration of conformity

Hereby, Allterco Robotics EOOD declares that the radio equipment type Shelly Pro 4PM 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-pro-4pm/

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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**

RoHS COMPLIANT

20 PAP 22 PAP

Documents / Resources

	**Shelly PRO 4PM 4 Circuit Wi-Fi Relay Switch** [pdf] User Guide PRO 4PM 4 Circuit Wi-Fi Relay Switch, PRO 4PM, 4 Circuit Wi-Fi Relay Switch, Wi-Fi Relay Switch, Relay Switch, Switch

References

- Shelly - Shelly
- Shelly Cloud
- Shelly Cloud
- Shelly Pro 4PM
- Shelly Smart Control