

Shelly^{PRO} 4PM

4 CIRCUIT WI-FI RELAY SWITCH

USER AND SAFETY GUIDE

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 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 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 Wi-Fi 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 Wi-Fi router and the Internet.

Shelly[®] has an integrated web server, through which the User may adjust, control and monitor the Device. Shelly[®] has 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. Shelly[®] devices can communicate directly with other Wi-Fi devices through HTTPS protocol. An API can be provided by the Manufacturer.

Shelly[®] devices may be available for monitor and control even if the User is outside the range of the local Wi-Fi network, as long as the Wi-Fi router is connected to the Internet. The cloud function could be used, which is activated through the web server of the Device or through the settings in the Shelly Cloud mobile application.

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/>

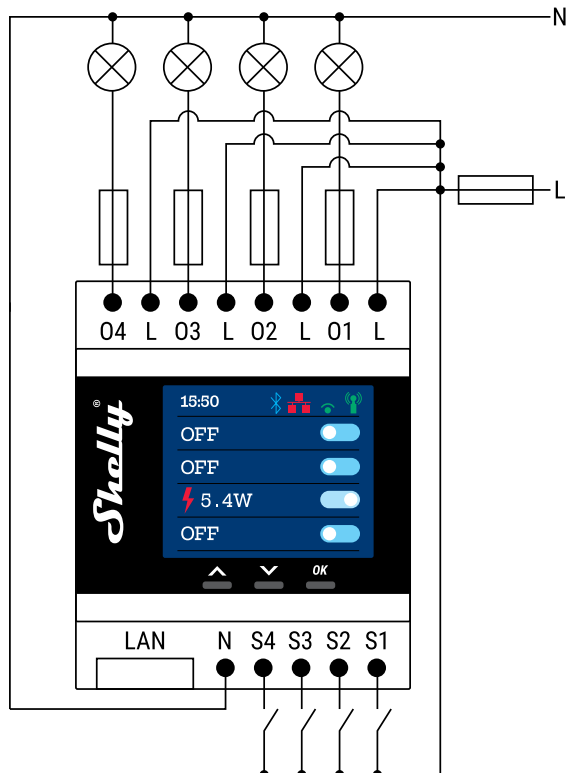
Control your home with your voice

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. Connectivity for all Shelly[®] Pro devices can be through Wi-Fi or LAN Internet connection, and Bluetooth can be used for the inclusion process. Shelly[®] Pro series offers PM products for real-time precise power measurement.



LEGEND:

- **N** - Neutral input (Zero);
- **L** - Line input (110-240V);
- **L*** - Input of O1, O2, O3, O4;
- **O1, O2, O3, O4** Output 1, 2, 3, 4;
- **S** - Switch (input) for control;
- **S1, S2, S3, S4** Switch (input) controlling O1, O2, O3, O4
- **LAN** – Local Area Network RJ 45 connector

*The cables connected to L must be with the same length!

Installation Instructions

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. 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.

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 O1, O2, O3, O4 - 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 cables from the switches to the terminals S1, S2, S3 and S4.

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.

⚠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.

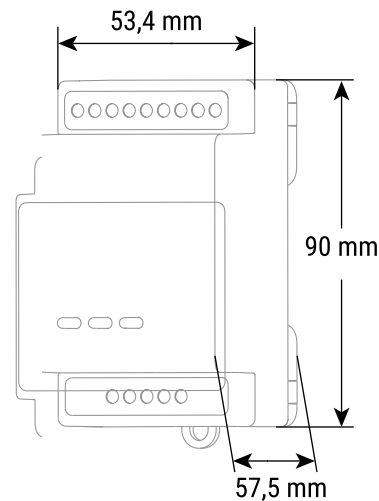
⚠RECOMMENDATION! The Device may be connected with solid single-core cables with increased heat resistance to insulation not less than PVC T105°C.

Initial Inclusion

You may choose if you want to use Shelly Pro 4PM 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 supply: 110-240V; 50/60Hz AC
- Max current per channel: 16A
- Total max. current of all outputs: 40 A
- RF output power (WiFi) 13.83 dBm
- RF output power (Bluetooth) 4.97 dBm
- Ambient temperature: 0°C - 40°C
- Radio signal power: 1mW
- Radio protocol: Wi-Fi 802.11 b/g/n
- 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): 57,5x53,4x90 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
- LAN - YES
- Temperature Protection - YES
- Scripting (mjs) - YES
- MQTT - YES
- CoAP - No
- URL Actions - 20
- Scheduling - 50
- Add-on support - No
- CPU - ESP32
- Flash - 8MB



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 may be controlled by an external button/switch.

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>

All rights to trademark Shelly[®] and other intellectual rights associated with this Device belong to Allterco Robotics EOOD.