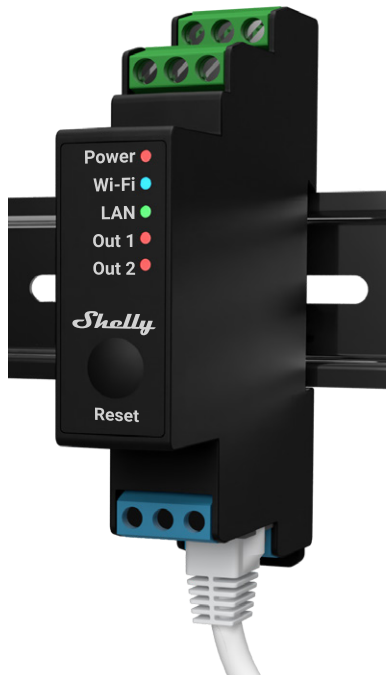
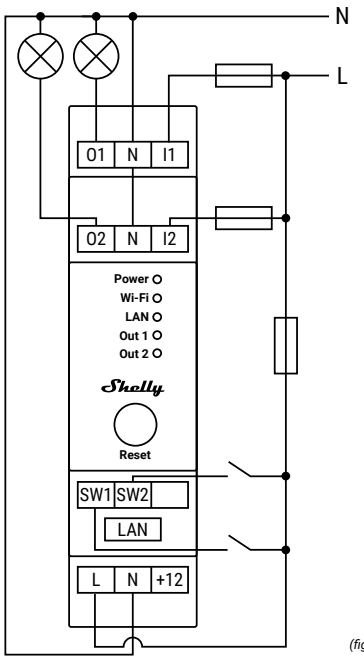
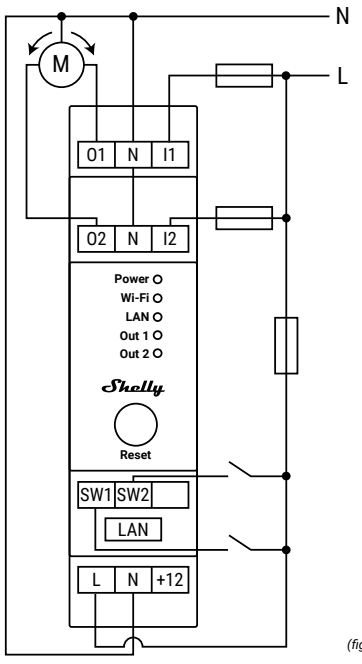
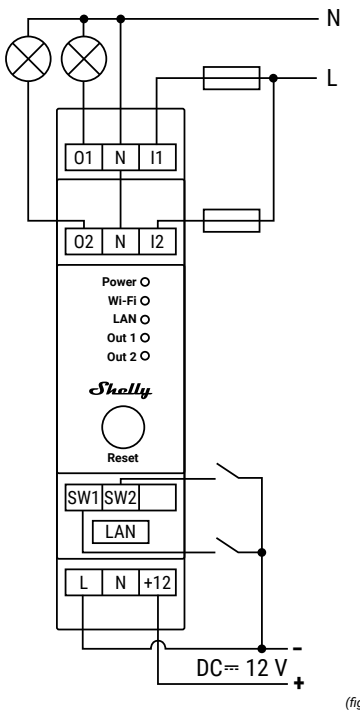




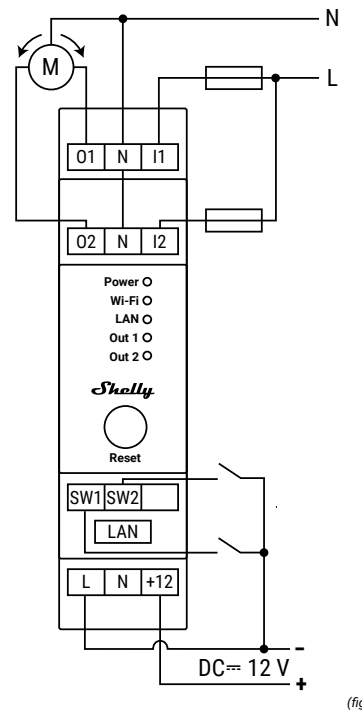
(fig.1)



(fig.3)



(fig.2)



(fig.4)

EN

USER AND SAFETY GUIDE
2 CIRCUIT WI-FI RELAY SWITCH WITH POWER MEASUREMENT
SHELLY PRO 2PM

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 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. 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.

Legend:

Device terminals:
- **O1:** Load circuit 1 output terminal
- **O2:** Load circuit 2 output terminal
- **I1:** Load circuit 1 input terminal
- **I2:** Load circuit 2 input terminal
- **SW1:** Switch (controlling O1*) input terminal
- **SW2:** Switch (controlling O2*) 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 2PM smart relay by Allterco Robotics 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 2PM is a single-phase relay with two channels that supports power metering of each channel.

⚠ **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 electrician.*

⚠ **CAUTION!** *Danger of electrocution. Every change in the connections has to be done after ensuring there is no voltage present at the Device terminals.*

⚠ **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.*

⚠ **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.*

⚠ **RECOMMENDATION** *Connect the Device using solid single-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 switchboard as shown in the schemes and following the Safety Instructions.
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 two load circuits (**fig.1**), connect all N terminals to the Neutral wire and the L terminal to the Device power supply circuit breaker.
Connect the 2 switch circuits to the S1 and S2 input terminals and the Device power supply circuit breaker."
Connect the first load circuit to the O1 terminal and the Neutral wire. Connect the I1 terminal to the first load circuit breaker.
Connect the second load circuit to the O2 terminal and the Neutral wire. Connect the I2 terminal to the second load 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. Connect the Negative wire to the N terminals, which are between the I1 and O1 and the I2 and O2 terminals.

⚠ **CAUTION!** *Do not connect the Negative wire to the N terminal, which is between the L and +12 terminals.*

Connect the first load circuit to the O1 terminal and the Neutral wire. Connect the I1 terminal to the first load circuit breaker.
Connect the second load circuit to the O2 terminal and the Neutral wire. Connect the I2 terminal to the second load circuit breaker.
If you are using AC to power the Device and want to control an AC bi-directional motor (**fig.3**), connect all N terminals to the Neutral wire and the L terminal to the Device power supply circuit breaker.
Connect the 2 switch circuits to the S1 and S2 input terminals and the Device power supply circuit breaker.
Connect the common motor terminal/wire to the Neutral wire. Connect motor direction terminals/wires to the O1 and O2 terminals**.
If you are using 12 V DC to power the Device and want to control an AC bi-directional motor (**fig. 4**), 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. Connect the Negative wire to the N terminals, which are between the I1 and O1 and the I2 and O2 terminals.

⚠ **CAUTION!** *Do not connect the Negative wire to the N terminal, which is between the L and +12 terminals.*

Connect the common motor terminal/wire to the Neutral wire. Connect motor direction terminals/wires to the O1 and O2 terminals**.

***The Device outputs can be reconfigured to match the required rotation direction.*

⚠ **RECOMMENDATION** *For inductive loads, which cause voltage 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 Management 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 children.*

Specifications

- Mounting - DIN rail
- Dimensions (HxWxL): 68.5x18.5x89.5 mm
- Power supply: 110 - 240 V AC, 50/60 Hz
- 12V DC (10.5 V - 13.5 V), 250 mA "
- Electrical consumption: < 4 W
- Working temperature: 0 °C - 40 °C
- Controlling elements: 2 relays
- Controlled elements: 2 AC circuits
- Max switching voltage: 240 V
- Max current per channel: 16 A
- Total max. current of all outputs: 25 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 structure): 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 connected to Shelly Cloud or Shelly Cloud 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 connected.
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 equipment type Shelly Pro 2PM 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-2pm/

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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.

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