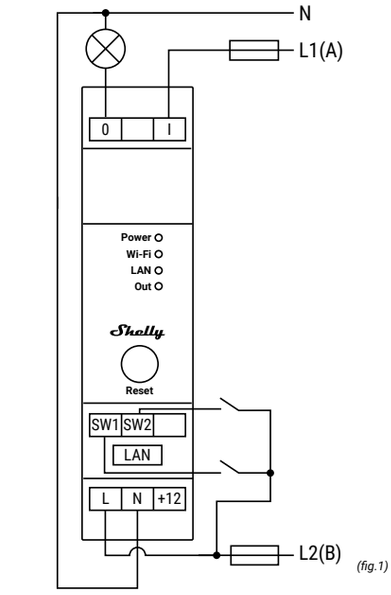
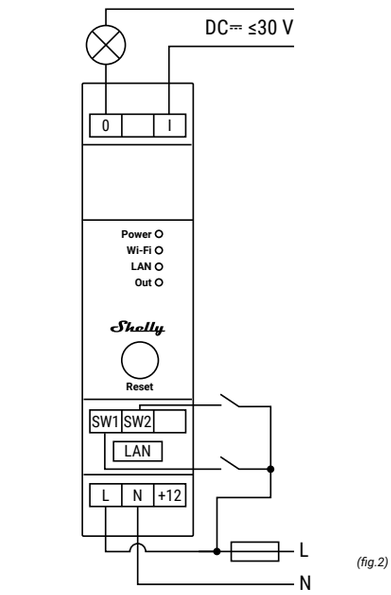
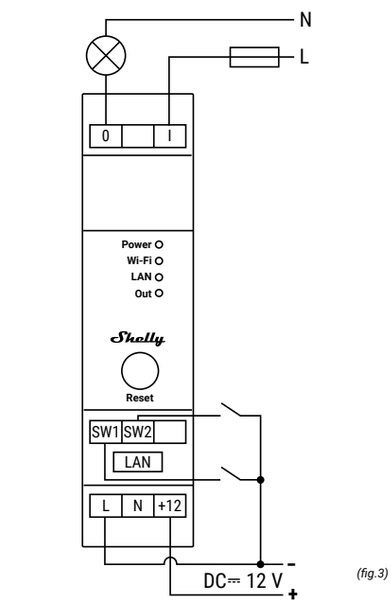


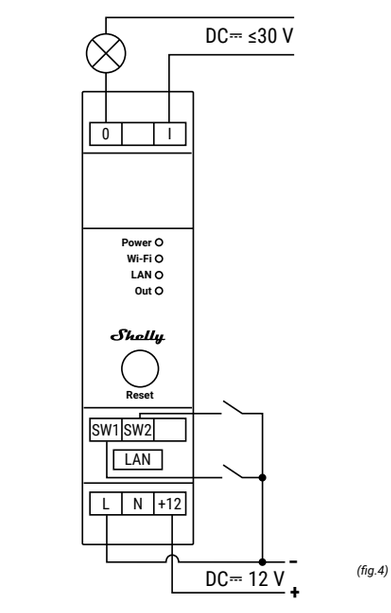
(fig.1)



(fig.2)



(fig.3)



(fig.4)

EN

USER AND SAFETY GUIDE
1 CIRCUIT WI-FI RELAY SWITCH
SHELLY PRO 1

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.

Legend:

Device terminals:
- **N:** Neutral terminal
- **L:** Live (110-240V) terminal
- **+12:** 12V (10.5V to 13.5V) DC power supply terminal
- **SW1:** Switch (controlling O*) input terminal
- **SW2:** Switch* input terminal
- **O:** Load circuit output terminal
- **I:** Load circuit input terminal

Wires:
- **L:** Live (110-240V) wire
- **L1(A):** Load circuit live (110-240V) wire
- **L2(B):** Device power supply 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 1 smart relay (the Device) by Allterco Robotics EOOD is intended to be mounted into a standard switchboard on DIN rail, next to the circuit breakers in order to control the electric power through it . Shelly can work as a standalone device or as an accessory to a home automation controller.

⚠**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 load circuit (**fig.1**), connect the N terminal 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 load circuit to the O terminal and the Neutral wire. Connect the I terminal to the load circuit breaker.

Two different phases can be used for the load circuit and the Device power supply circuit.

If you are using AC to power the Device, but want to switch a DC load circuit (**fig.2**), connect the N terminal 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 one of the load circuit power supply wires. Connect the I terminal to the other load circuit power supply wire.

⚠**CAUTION!** The load circuit voltage should not exceed 30 V DC and the current should not exceed 12 A.

If you are using 12 V DC to power the Device, but want to switch an AC load circuit (**fig. 3**), 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 load circuit to the O terminal and the Neutral wire. Connect the I terminal to the circuit breaker.

If you are using 12 V DC to power the Device and want to switch a DC load circuit (**fig. 4**), connect the Device power supply positive wire to the +12 terminal and the Device power supply negative wire to the L terminal. Connect the 2 switch circuits to the S1 and S2 input terminals and the Device power supply negative wire.

Connect the load circuit to the O terminal and one of the load circuit power supply wires. Connect the I terminal to the other load circuit power supply wire.

⚠**CAUTION!** *The load circuit voltage should not exceed 30 V DC and the current should not exceed 12 A.*

⚠ **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
https://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

- Dry contact: Yes
- Power supply: 110-240 V AC, 50/60 Hz; 12V DC (DC range: +10.5 V ÷ 13.5 V, 250mA)
- Max switching current: 16 A
- DC output: 0 V ÷ 30 V; 12A
- Dimensions (HxWxL): 68.5x18.5x89.5 mm
- Mounting - DIN rail
- Wi-Fi - YES
- Bluetooth - YES
- LAN - YES
- Temperature Protection - YES
- Scripting (mjs) - YES
- MQTT - YES
- CoAP - No
- URL Actions - 20
- Scheduling - 50
- Add-on support - YES
- CPU - ESP32
- Flash - 8MB
- Operational range: (depending on terrain and building structure): up to 50 m outdoors, up to 30 m indoors
- Electrical consumption: < 3 W
- Working temperature: 0°C - 40°C
- Controlled elements: 1 electrical circuits (max 30 V in DC mode).
- Controlling elements: 1 relay
- Radio signal power: 1mW
- Radio protocol: Wi-Fi 802.11 b/g/n
- Frequency Wi-Fi : 2412-2472 MHz; (Max. 2495 MHz)
- Frequency Bluetooth: TX/RX: 2402-2480 MHz (Max. 2483.5 MHz)
- RF output Wi-Fi: <20 dBm
- RF output Bluetooth: <5 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 the 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 the 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.
Output (red): Red light indicator will be on if the Output rellay is closed.

DECLARATION OF CONFORMITY

Hereby, Allterco Robotics EOOD declares that the radio equipment type Shelly Pro 1 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-1/

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Address: Bulgaria, Sofia, 1407, 103 Cherni vrah Blvd.
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