Shelly Gen4 Relay Switch 1x 16A WiFi Bluetooth Instruction Manual

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Fig. 1. 110-240 V~ power supply

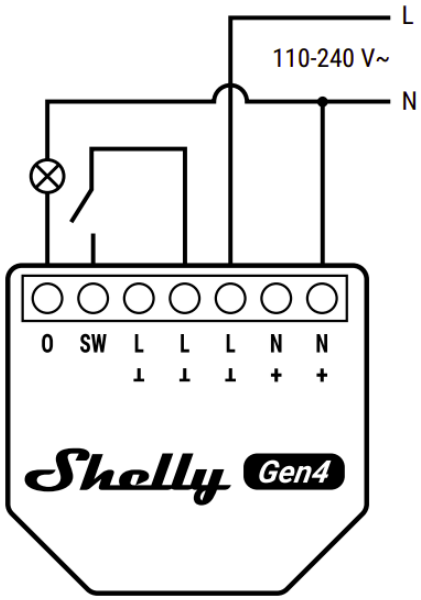
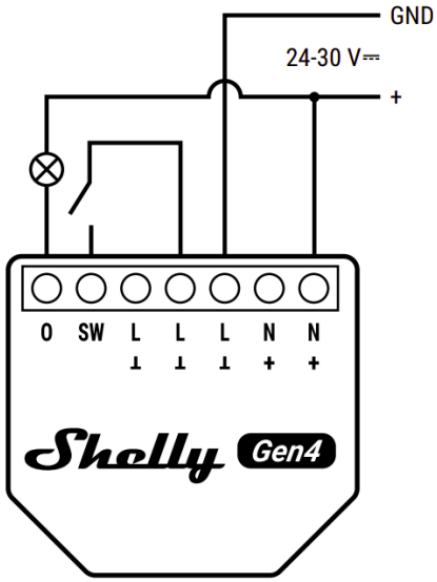


Fig. 2. 24-30 V power supplY



Legend

Device terminals

- **O:** Load circuit output terminal

- **SW:** Switch input terminal (controlling O)
- **L:** Live terminal (110-240 V~)
- **N:** Neutral terminal
- **+:** 24-30 V positive terminal
- **⏚:** 24-30V ground terminal

Wires

- **L:** Live wire (110-240 V~)
- **N:** Neutral wire
- **+:** 24-30V positive wire
- **GND:** 24-30 V ground wire

User and safety guide

Shelly 1PM Gen4

Smart switch with power measurement

Referred to in this document as “the Device”

Safety information

For safe and proper use, read this guide, and any other documents accompanying this product. Keep them for future
reference. Failure to follow the installation procedures can lead to malfunction, danger to health and life, violation of law, and/or refusal of legal and commercial guarantees (if any). Shelly Europe Ltd. is not responsible for any loss or damage in case of incorrect installation or improper operation of this device due to failure to follow the user and safety instructions in this guide.

⚠ This sign indicates safety information.

ⓘ This sign indicates an important note.

⚠ **WARNING!** Risk of electric shock. Installation of the Device to the power grid must be performed carefully by a qualified electrician.

⚠ **WARNING!** Before making any changes to the connections, ensure there is no voltage present at the Device terminals.

⚠ **CAUTION!** Connect the Device only to a power grid and appliances that comply with all applicable regulations. A short circuit in the power grid or any appliance connected to the Device can cause fire, property damage, and electric shock.

⚠ **CAUTION!** The Device may be connected to and control only electric circuits and appliances that comply with the applicable standards and safety norms.

⚠ **CAUTION!** Do not connect the Device to appliances that exceed the specified maximum electric load.

⚠ **CAUTION!** Connect the Device only in the way shown in these instructions. Any other method could cause damage and/or injury.

⚠ **WARNING!** Before installing the Device, turn the circuit breakers off. Use a suitable test device to make sure

there is no voltage on the wires you want to connect. When you are sure that there is no voltage, proceed to the installation.

CAUTION! The Device and the appliances connected to it, must be secured by a cable protection switch in accordance with EN60898-1 (tripping characteristic B or C, max. 16 A rated current, min. 6 kA interrupting rating, energy limiting class 3).

CAUTION! Do not use the Device if it shows any sign of damage or defect.

CAUTION! Do not attempt to repair the Device yourself.

CAUTION! The Device is intended only for indoor use.

CAUTION! Keep the Device away from dirt and moisture.

CAUTION! Do not allow children to play with the buttons/ switches connected to the Device. Keep the devices (mobile phones, tablets, PCs) for remote control of Shelly away from children.

Product description

Shelly 1PM Gen4 (the Device) is a Matter-compatible smart
switch with power measurement. Equipped with a multi-protocol wireless MCU, it supports Zigbee and Bluetooth connectivity for a secure connection. The Device operates
on both, AC and DC power. Its small form factor allows retrofitting into standard electrical wall boxes, behind power sockets, light switches, or other places with limited space.
The Device has an embedded web interface to monitor, control, and adjust its settings. The web interface is accessible at **http://192.168.33.1** when connected directly to the Device access point or at its IP address when accessed from the same network.
The Device can access and interact with other smart devices or automation systems if they are in the same network infrastructure. Shelly Europe Ltd. provides APIs for the devices, their integration, and cloud control. For more information, **visit : https://shelly-api-docs.shelly.cloud**.

The Device comes with factory-installed firmware. To keep it updated and secure, Shelly Europe Ltd. provides the latest firmware updates free of charge. Access the updates through either the embedded web interface or the Shelly Smart Control mobile application. Installation of firmware updates is the user's responsibility. Shelly Europe Ltd. shall not be liable for any lack of conformity of the Device caused by the failure of the user to install the available updates in a timely manner.

Installation instructions

To connect the Device, we recommend using solid sin-gle-core wires or stranded wires with ferrules. The wires should have insulation with increased heat resistance, not less than PVC T105°C (221°F).

Do not use buttons or switches with built-in LED or neon glow lamps.

When connecting wires to the Device terminals, consider the specified conductor cross section and stripped length. Do not connect multiple wires into a single terminal.

For security reasons, after you successfully connect the Device to the local Wi-Fi network, we recommend that you disable or password-protect the Device AP (Access Point).

To perform a factory reset of the Device, press and hold the Reset/control button for 10 seconds.

To enable the access point and the Bluetooth connection of the Device, press and hold the Reset/control button for 5 seconds.

Do not use L terminal(s) of the device to power other devices
If you are using 110-240 V~ power supply **(Fig. 1):**

1. Connect the load circuit to the O terminal of the Device and the Neutral wire.
2. Connect the Live wire to an L terminal of the Device.
3. Connect the Neutral wire to an N terminal of the Device.
4. Connect a switch or button to the device SW terminal and any of the unused L terminals of the Device.

If you are using 24-30 V ⎓ power supply **(Fig. 2):**

ⓘ Note that power measurement is not available in DC power.

1. Connect the load to the O terminal of the Device and the DC+ wire.
2. Connect the GND wire to a ⏚ terminal of the Device.
3. Connect the DC+ wire to a + terminal of the Device.
4. Connect a switch or button to the SW terminal and any of the unused 1 terminals of the Device. Adding Zigbee Device.

Adding Zigbee Device

Adding Zigbee Device

- To switch the Device from Matter firmware (default) to Zigbee, press 5 times the Reset button. The Device stays in pairing mode for 2 minutes, and you can find it in your home automation platform through the Zigbee Hub. If you cannot find the Device, press the Reset button 3 times.
- To remove the Device, go to its page and delete it from your home automation platform.

  ⓘ In Zigbee mode, the AP of the Device is not available by default. To enable it, the you should hold the Reset button for 5 seconds.

Setting up the Device via Matter

ⓘ Before you start, make sure you have:

- 2.4 GHz Wi-Fi network
- A Matter-compatible hub connected to the Internet
  A mobile device with Bluetooth enabled and a Matter-com-patible app installed

1. Enable the access point of the Device by pressing and holding the Reset/control button for 5 seconds.
2. Scan the Matter QR code inside the box.
3. Follow the instructions that appear on your screen to com-plete the process.

   ⓘ Keep the QR code for future reference. If you reset the de-vice, you will need that code again.

Specifications

Physical

- **Size (HxWxD):** 37x42x16 mm / 1.46×1.65×0.63 in
- **Weight:** 27 g / 0.95 oz

- **Screw terminals max torque:** 0.4 Nm / 3.5 lbin
- **Conductor cross section:** 0.2 to 2.5 mm² / 24 to 14 AWG (solid, stranded, and bootlace ferrules)
- **Conductor stripped length:** 6 to 7 mm / 0.24 to 0.28 in
- **Mounting:** Wall console / In-wall box
- **Shell material:** Plastic
- **Shell color:** Red

Environmental

- **Ambient working temperature: –**20°C to 40°C / -5°F to 105°F
- **Humidity:** 30% to 70% RH
- **Max. altitude:** 2000 m / 6562 ft

Electrical

- **Power supply:**
  - 110-240V~
  - 24-30V⎓
  - **Power consumption:** < 1.2 W

Output circuits ratings

- **Max. switching voltage:**
  - 240V~
  - 30V⎓
- **Max. switching current:**
  - 16A (240V~
  - – 10A (30V⎓)

Sensors, meters

- **Internal-temperature sensor :** Yes
- **Voltmeter (AC) :** Yes
- **Ammeter (AC) :** Yes

Radio Wi-Fi

- **Protocol :** 802.11 b/g/n
- **RF band :** 2401-2483 MHz
- **Max. RF power :** < 20 dBm
- **Range :** Up to 50 m / 164 ft outdoors, up to 30 m / 98 ft indoors (depending on local conditions)

Bluetooth

- **Protocol:** 4.2
- **RF band:** 2400-2483.5 MHz
- **Max. RF power:** <4 dBm
- **Range:** Up to 30 m / 98 ft outdoors, up to 10 m / 33 ft indoors (depending on local conditions)

Zigbee

- **Protocol:** 802.15.4
- **RF band:** 2400 to 2483.5 MHz
- **Max. RF power :** < 20 dBm
- **Range:** Up to 100 m / 328 ft indoors and 300 meters / 984 ft outdoors (depends on local conditions)

Microcontroller unit

- **CPU:** ESP-Shelly-C68F
- **Flash:** 8 MB

Firmware capabilities

- **Schedules:** 20
- **Webhooks (URL actions):** 20 with 5 URLs per hook
- **Wi-Fi range extender:** Yes
- **BLE Gateway:** Yes
- **Scripting:** Yes
- **MQTT:** Yes
- **Encryption:** Yes

Shelly Cloud inclusion
The Device can be monitored, controlled, and set up through our Shelly Cloud home automation service. You can use the service through either our Android, iOS, or Harmony OS mobile application or through any internet browser at **https://control.shelly.cloud/**.
If you choose to use the Device with the application and Shelly Cloud service, you can find instructions on how to connect the Device to the Cloud and control it from the Shelly app in the application guide: **https://shelly.link/app-guide**.
Troubleshooting

In case you encounter problems with the installation or operation of the Device, check its knowledge base page: **https://shelly.link/1PM_Gen4**

Declaration of Conformity
Hereby, Shelly Europe Ltd. declares that the radio equipment type for Shelly 1PM Gen4 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.link/1PM_Gen4_DoC
Manufacturer: Shelly Europe Ltd.
Address: 51 Cherni Vrah Blvd., bldg. 3, fl. 2-3, Sofia 1407, Bulgaria
Tel.: +359 2 988 7435
E-mail: **support@shelly.cloud**
Official website: **https://www.shelly.com**

Changes in contact information are published by the Manufacturer on the official website.

For UK PSTI Act Statement of Compliance scan the QR code

Documents / Resources

	Shelly Gen4 Relay Switch 1x 16A WiFi Bluetooth [pdf] Instruction Manual Gen4 Relay Switch 1x 16A WiFi Bluetooth, Gen4, Relay Switch 1x 16A WiFi Bluetooth, 1x 16A WiFi Bluetooth, WiFi Bluetooth

References

- Shelly Control
- Welcome to Shelly Technical Documentation | Shelly Technical Documentation
- User Manual