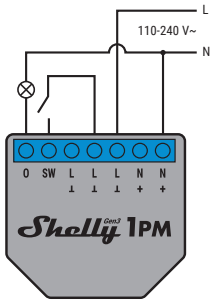
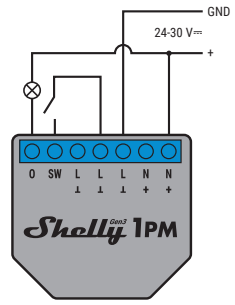
EN **Wiring diagram**
DE **Anschlussplan**
IT **Schema elettrico**



EN Fig. 1. 110-240 V~ Power supply
DE Abb. 1. 110-240 V~ Stromversorgung
IT Fig. 1. Alimentazione 110-240 V~



EN Fig. 2. 24-30 V⎓ power supply
DE Abb. 2. 24-30 V⎓ Stromversorgung
IT Fig. 2. Alimentazione 24-30 V⎓

EN

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
- **⊥** 24-30 V⎓ negative terminal

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

DE

Legende

Geräteanschlüsse
- **O:** Ausgangklemme des Lastkreises
- **SW:** Eingangklemme des Schalters (Steuerung O)
- **L:** Klemme für Phase (110-240 V~)
- **N:** Klemme für Neutralleiter
- **+:** 24-30 V⎓ Positive Anschluss
- **⊥:** 24-30 V⎓ Negative Anschluss

Kabel
- **L:** Stromführendes Kabel (110-240 V~)
- **N:** Neutralleiterkabel
- **+:** 24-30 V⎓ Positive Kabel
- **GND:** 24 - 30 V⎓ Erdungskabel (Masse)

IT

Leggenda

Terminali del dispositivo
- **O:** Terminale di uscita del circuito di carico
- **SW:** Terminale d'ingresso dell'interruttore (controllo O)
- **L:** Terminale sotto tensione (110-240 V~)
- **N:** Terminale di neutro
- **+:** Terminale positivo 24-30 V⎓
- **⊥:** Terminale negativo 24-30 V⎓

Cavi
- **L:** Cavo sotto tensione (110-240 V~)
- **N:** Cavo neutro
- **+:** Terminale positivo 24-30 V⎓
- **GND:** Cavo di terra 24 - 30 V⎓

B2724 Ver1

EN

User and safety guide
Shelly 1PM Gen3
Smart switch with power measurement

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 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.*
⚠**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.*
⚠**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. 16A 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 Gen3 (the Device) is a smart switch with power measurement. It 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 used to monitor, control, and adjust the Device. 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 you and the Device are connected to 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 single-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 Control button for 10 seconds.*
ⓘ*To enable the access point and the Bluetooth connection of the Device, press and hold the Control button for 5 seconds.*
ⓘ*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.*
ⓘ*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 + wire.
2. Connect the GND wire to a ⊥ terminal of the Device.
3. Connect the + wire to a + terminal of the Device.
4. Connect a switch or button to the SW terminal and any of the unused ⊥ terminals of the Device.

Specifications

Physical
- Size (HxWxD): 37x42x16 mm/ 1.46x1.65x0.63 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

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

Output circuits ratings
- Max. switching voltage:
  - 240 V~
  - 30 V⎓
- Max. switching current:
  - 16 A (240 V~)
  - 10 A (30 V⎓)

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 / 165 ft outdoors, up to 30 m / 99 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 / 100 ft outdoors, up to 10 m / 33 ft indoors (depending on local conditions)

Microcontroller unit
- CPU: ESP-Shelly-C38F
- 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_Gen3

Declaration of Conformity

Hereby, Shelly Europe Ltd. declares that the radio equipment type for Shelly 1PM Gen3 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_Gen3_DoC

Manufacturer: Shelly Europe Ltd.
Address: 103 Cherni vrah Blvd., 1407 Sofia, 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.
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