Shelly

DIMMER 0/1-10V PM GEN3

Legend

Device terminals

- **+:** 0-10 VDC positive terminal
- **-:** 0-10 VDC negative terminal
- **O:** Relay output
- **S1:** Switch/button input terminals for light control
- **S2:** Switch/button input terminals for light control
- **L:** Live (110-240 V) terminal
- **N:** Neutral terminal
- **Dim+ / Dim-:** Positive/negative terminal of the LED driver
- **V+ / V-:** Positive/negative output of the LED driver

Wires

- **N:** Neutral wire
- **L:** Live (110-240 V) wire

User and safety guide
Shelly Dimmer 0/1-10V PM Gen3

Smart 0/1-10V dimming controller

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 important note.*

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

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

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

⚠ **CAUTION!** The Device is intended only for indoor use.

⚠ **CAUTION!** Keep the Device away from dirt and moisture.

Product description

Shelly Dimmer 0/1-10V PM Gen3 (the Device) is a smart dimming controller which allows remote control of dimming drivers from a mobile phone, tablet, PC, or home automation system. It can work standalone in a local Wi-Fi network or it can also be operated through cloud home automation services. The device provides support for 0-10V and 1-10V types of drivers.

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).*

ⓘ *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.*

Connect the Device positive output (+) to the LED driver positive input (Dim+), and the Device negative output (-) to the LED driver negative input (Dim -) as shown in Fig. 1.

Connect the Live wire to the Device L terminal, and the Neutral wire to the N terminal and to the LED driver N terminal.

Connect the Device relay output O to the LED driver L terminal.

Connect switches or buttons to the Device S1 and S2 terminals and the Live wire.

The Device can work in single or dual-button modes or in a single switch mode.

In single input mode, S2 is always detached.

Connect the LED driver to the LED lights in accordance with the installation instructions provided by the LED driver manufacturer.

Specifications

- Size (HxWxD): 38.5x43.5x17mm / 1.52x1.71x0.67in
- Weight: 28.5 g / 0.99 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: 5 to 6 mm / 0.20 to 0.24 in
- Mounting: Wall console/behind wall/ceiling construction
- Shell material: Plastic
- Ambient working temperature: -20°C to 40°C / -5°F to 105°F
- Humidity: 30% to 70% RH
- Max. altitude: 2000 m / 6562 ft
- Power supply: 110-240 V~ 50/60 Hz
- Power consumption: < 1.5 W
- External protection: 16A, tripping characteristic B or C, 6 kA interrupting rating, energy limiting class 3
- Max. switching voltage: 240 V~
- Max. switching current: 13 A
- Max. control current: 35 mA
- Voltmeter (AC): 110 - 240 V
- Ammeter (AC): 50 mA - 16 A
- Meters accuracy: ±10%
- Power and energy meters:
  - Active and apparent power
  - Active and apparent energy
  - Power factor
- Measurement data storage: No
- Internal-temperature sensor: Yes

Wi-Fi
- Protocol: 802.11 b/g/n
- RF band: 2401-2495 MHz
- Max. RF power: < 20 dBm
- Range: Up to 30 m / 100 ft indoors and up to 50 m / 160 ft outdoors (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)

- CPU: ESP-Shelly-C38F
- Clock frequency: 40 Mhz
- Flash: 8MB
- Schedules: 20
- Webhooks (URL actions): 20 with 5 URLs per hook
- Scripting: Yes
- MQTT: Yes
- Advanced schedules: Yes
- KVS (Key-Value Store): 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.

The Shelly mobile application and Shelly Cloud service are not conditions for the Device to function properly. This Device can be used standalone or with various other home automation platforms.

Troubleshooting

In case you encounter problems with the installation or operation of the Device, check its knowledge base page at https://shelly.link/dimmer_0/1-10V_PM_Gen3

Declaration of Conformity

Hereby, Shelly Europe Ltd. declares that the radio equipment type Shelly Dimmer 0/1-10V PM 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/dimmer_0/1-10V_PM_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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