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Shelly 1PM Gen3



Device identification

Device name: **Shelly 1PM Gen3**

Device model: **S3SW-001P16EU**

Device SSID: **Shelly1PMG3-XXXXXXXXXXXX**

BLE Model ID: **0x1019**

Short description

Shelly 1PM Gen3 is a small form factor smart switch with power measurement, which allows remote control of electric appliances through 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 also has improved processor and increased memory compared to its predecessor.

Shelly 1PM Gen3 can be accessed, controlled and monitored remotely from any place where the User has internet connectivity, as long as the device is connected to a Wi-Fi router and the Internet.

It can be retrofitted into standard electrical wall boxes, behind power sockets and light switches or other places with limited space.

Shelly 1PM Gen3 has embedded Web Interface which can be used to monitor and control the device, as well as adjust its settings.

Main features

Wi-Fi Connectivity: The device can connect to your home Wi-Fi network, allowing you to remotely monitor humidity and temperature data through a smartphone app or other compatible devices.

Integration with Smart Home Platforms: You can integrate the Shelly i4 Gen3 with popular smart home platforms, including Google, Alexa, and Samsung SmartThings. This enables voice control and automation capabilities through these platforms.

Smart Switch with Power Measurement: Acts as a smart switch with the added capability of measuring power consumption, allowing you to monitor the energy usage of connected appliances.

Compact Design: Designed as a small form factor switch, making it suitable for retrofitting into standard electrical wall boxes, behind power sockets, light switches, or other confined spaces.

Remote Control: Enables remote control of electric appliances via a mobile phone, tablet, PC, or home automation system.

Local and Cloud Control: Can function independently in a local Wi-Fi network and can also be operated through cloud home automation services.

Improved Processor and Memory: Upgraded with an improved processor and increased memory for enhanced performance.

Remote Access: Allows remote access, control, and monitoring from any location with internet connectivity, provided the device is connected to a Wi-Fi router and the internet.

Embedded Web Interface: Features an embedded web interface for monitoring, control, and adjustment of settings.

Wireless Connectivity: The device supports Wi-Fi (802.11 b/g/n) and Bluetooth 4.2 protocols with specified indoor and outdoor range capabilities.

BLE Gateway: Bridge between your Shelly BLU devices and the wider Shelly ecosystem. It receives Bluetooth signals and sends them to the cloud or locally to another non-bluetooth device.

Wi-Fi Range extender for IoT devices: A Wi-Fi extender is employed to expand the reach of your Wi-Fi network by receiving your current Wi-Fi signal, enhancing its strength, and then transmitting the enhanced signal over a wider area.

Scripting: <https://shelly-api-docs.shelly.cloud/gen2/Scripts/ShellyScriptLanguageFeatures/>

Wide range of integrations: The device can be integrated with 3rd party home systems, documented HTTP API, MQTT(s), Web Hooks over HTTP and HTTPS, UDP

Schedules: Allows scheduling of complex operations to be executed in predefined time window. Users can specify time windows based on date, time of day, weekdays, hours, minutes and seconds.

Virtual Components: <https://shelly-api-docs.shelly.cloud/gen2/DynamicComponents/Virtual/>

Use cases

Appliance Control: Use it to remotely control and automate the operation of various electric appliances such as lights, fans, or other devices.

Power Monitoring: Monitor the power consumption of connected appliances in real-time. This is useful for understanding energy usage patterns and promoting energy efficiency.

Home Automation: Integrate the Shelly 1PM Gen3 into your home automation system to create custom scenes and schedules for your devices.

Energy Efficiency: Leverage the power measurement feature to identify energy-hungry appliances and make informed decisions to improve overall energy efficiency in your home.

Remote Monitoring: Keep an eye on your devices even when you're away from home. The remote access feature allows you to monitor and control connected appliances from anywhere with internet connectivity.

Main applications

Residential
 MDU (Multi Dwelling Units - apartments, condominiums, hotels, etc.)
 Light commercial (small office buildings, small retail/restaurant/gas station, etc.)
 Government/municipal
 University/college

Integrations

Amazon Alexa supported capabilities

Yes

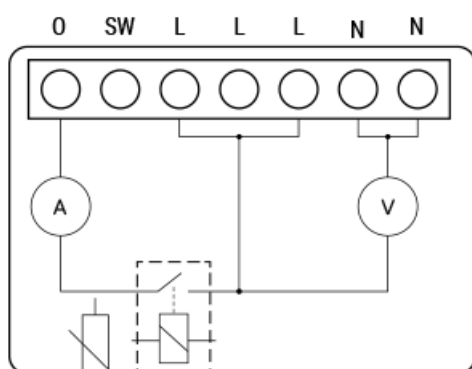
Google Smart Home supported traits

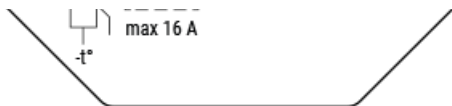
Yes

Samsung SmartThings supported capabilities

Yes

Simplified internal schematics





Device electrical interfaces

Inputs

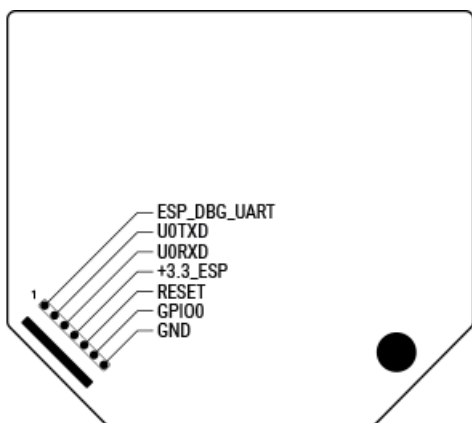
- 1 switch/button input on screw terminal: SW
- 5 power supply inputs on screw terminals: 2 N (+) and 3 L (L)

Outputs

- 1 relay output with power measurement on screw terminal: O

Add-on interface

Shelly proprietary serial interface



❑ **CAUTION!** High voltage on the add-on interface when the Device is powered!

Relay and connector ratings

[Connector ratings](#)

[Relay ratings](#)

Connectivity

- Wi-Fi
- Ethernet
- Bluetooth

Safety function

- Overheating protection
- Overvoltage protection
- Overcurrent protection
- Overpower protection

Supported load types

- Resistive (incandescent bulbs, heating appliances)
- Capacitive (capacitor banks, electronic equipment, motor starting capacitors)
- Inductive with RC Snubber (LED light drivers, transformers, fans, refrigerators, air-conditioners, washing machines, tumble dryers)

User interface

Inputs

One (Control) button

Press and hold for 5 seconds to enable Device access point and Bluetooth connection.
Press and hold for 10 seconds to factory reset the Device.

Outputs

LED (monocolor) indication

AP (Access Point) enabled and Wi-Fi disabled:

1 second ON / 1 second OFF

Wi-Fi enabled, but not connected to a Wi-Fi network:

1 second ON / 3 seconds OFF

Connected to a Wi-Fi network:

Constantly ON

Cloud is enabled, but not connected:

1 second ON / 5 seconds OFF

Connected to Shelly Cloud:

Constantly ON

OTA (Over the Air Update):

½ sec ON / ½ second OFF

Button pressed and held for 5 seconds:

½ second ON / ½ second OFF

Button presses and held for 10 seconds:

¼ second ON / ¼ second OFF

The list above starts with the initial device status and the lowest priority. Every next state cancels the previous one.

Specifications

Quantity	Value
Physical	
Size (HxWxD):	37x42x16 / 1.46x1.65x0.63
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
Shell material:	Plastic
Shell color:	Red
Terminal Color	Black
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:	<ul style="list-style-type: none">110-240 V~24-30 V□
Power consumption:	≤ 1.2 W

Lower consumption.

~ 1.2 W

External protection:

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)

Output circuits ratings

Max. switching voltage:

- 240 V~
- 30 V□

Max. switching current:

- 16A (240 V~)
- 10A (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 30 m/ 100 ft indoors and 50 m/ 160 ft outdoors
(Depends on local conditions)

Bluetooth

Protocol:

4.2 with BLE

RF band:

2400 - 2483.5 MHz

Max. RF power:

< 4 dBm

Range:

Up to 10 m/ 33 ft indoors and 30 m/ 100 ft outdoors
(Depends on local conditions)

Microcontroller unit

CPU:

ESP-Shelly-C38F

Flash:

8MB

Firmware capabilities

Schedules:

20

Webhooks (URL actions):

20 with 5 URLs per hook

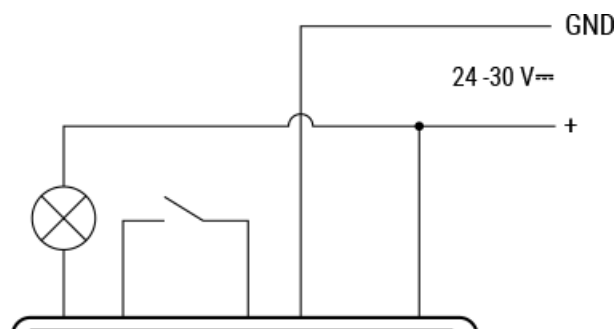
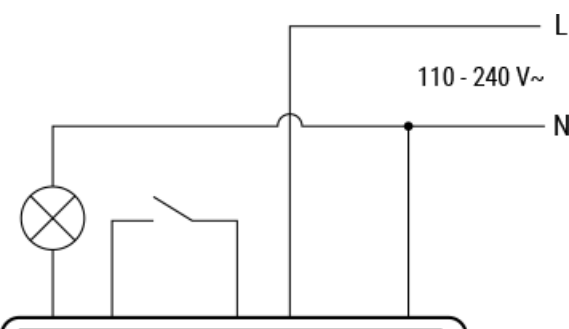
Scripting:

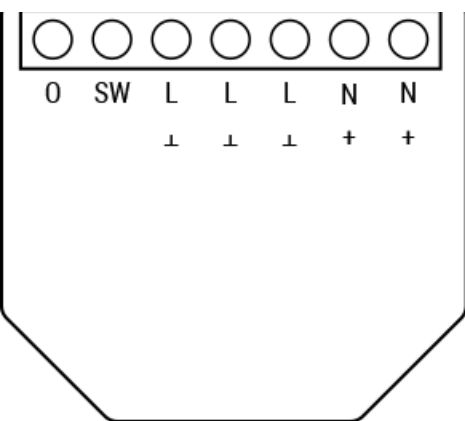
Yes

MQTT:

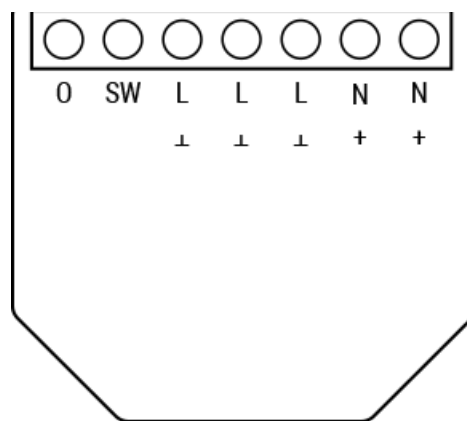
Yes

Basic wiring diagrams





110-240 V~ power supply



24-30 V□ power supply

Legend

Terminals		Wires	
I	Load circuit input terminal	L	Live wire (110-240 V~)
O	Load circuit output terminal	+	24-30V □ positive wire
SW	Switch (controlling O) input terminal	N	Neutral wire
L	Live terminal (110-240 V~)	GND	24-30 V □ ground wire
N	Neutral terminal		
+	24-30 V□ positive terminal		
L	24-30V□ negative terminal		

Components and APIs

[This device](#)
[All Shelly devices and services](#)

Compliance

[Shelly 1PM Gen3 multilingual EU declaration of conformity.pdf](#)

Printed user guide

[Shelly 1PM Gen3 multilingual printed user and safety guide.pdf](#)

Installation guides



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