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# Shelly 1 Gen3



## Device identification

Device name: **Shelly 1 Gen3**  
Device model: **S3SW-001X16EU**  
Device SSID: **Shelly1G3-XXXXXXXXXXXX**  
BLE Model ID: **0x1018**

## Short description

Shelly 1 Gen3 is a small form factor smart switch with potential-free contacts, 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 1 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 1 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 1 Gen3 with popular smart home platforms, including Google, Alexa, and Samsung SmartThings. This enables voice control and automation capabilities through these platforms.
- Local and Cloud Control:** Can function independently in a local Wi-Fi network and can also be operated through cloud home automation services.
- Bluetooth Connectivity:** Bluetooth and BLE gateway are available for inclusion purposes, which may be useful during the setup process.
- User-Friendly Interface:** The device provides a user-friendly interface with a reset button for manual interactions.
- Improved Processor and Memory:** Upgraded with an improved processor and increased memory for enhanced performance.
- 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.
- Dry Contact:** Allows switching on and off of lower voltage devices.

**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**

**Remote Appliance Control:** Turn on or off electric appliances remotely using your mobile phone, tablet, PC, or home automation system.

**Internet-Connected Convenience:** Access and control devices from anywhere with internet connectivity, as long as the Shelly 1 Gen3 is connected to a Wi-Fi router.

**Home Automation:** Shelly 1 Gen3 enables automatic control of power appliances for more relaxing and enjoyable experience.

**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

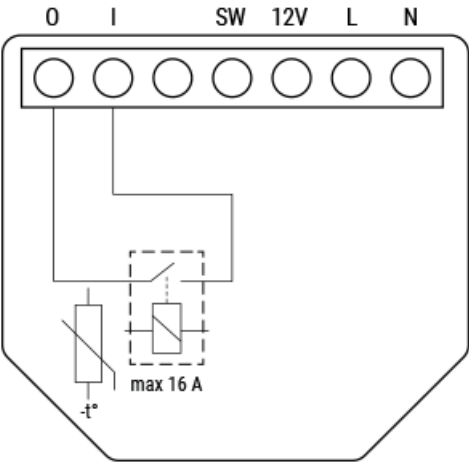
**Integrations**

**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
- 1 potential-free contacts relay input on screw terminal
- 2 power supply inputs on screw terminals: N and L

## Outputs

- 1 potential-free contacts relay output on screw terminal

## Connectivity

- Wi-Fi
- Ethernet
- Bluetooth

## Safety function

- Overheating 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):
    - $\frac{1}{2}$  sec ON /  $\frac{1}{2}$  second OFF
  - Button pressed and held for 5 seconds:
    - $\frac{1}{2}$  second ON /  $\frac{1}{2}$  second OFF
  - Button presses and held for 10 seconds:
    - $\frac{1}{4}$  second ON /  $\frac{1}{4}$  second OFF

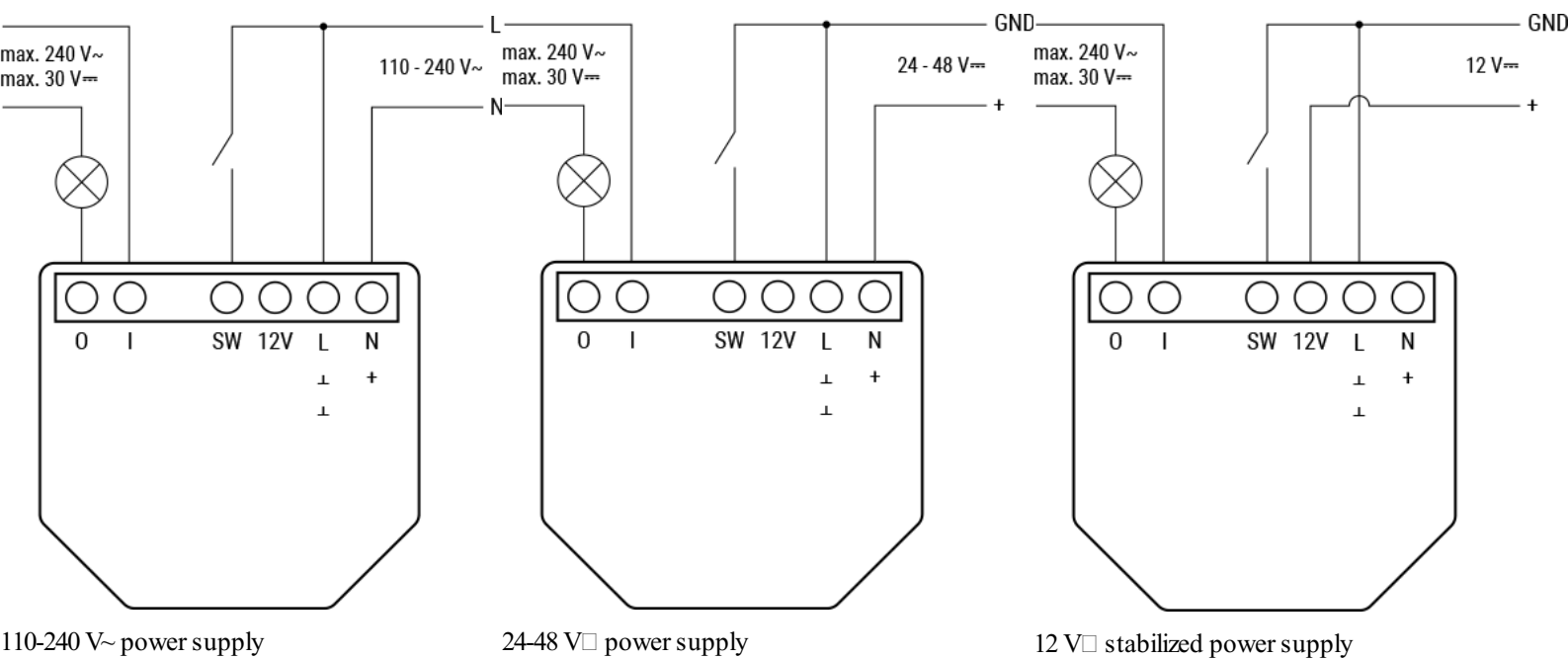
The list above starts with the initial device status and the lowest priority. Every next state cancels the previous one.

## Specifications

Quantity	Value
<b>Physical</b>	
Size (HxWxD):	37x42x16 / 1.46x1.65x0.63
Weight:	26 g / 0.92 oz
Screw terminals max torque:	0.4 Nm/ 3.5 lbin
Conductor cross section:	0.2 to 2.5 mm <sup>2</sup> / 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:	Blue
Terminal Color:	Black
<b>Environmental</b>	
Ambient working temperature:	-20 °C to 40 °C / -5 °F to 105 °F
Humidity:	30 % to 70 % RH
Max. altitude:	2000 m/ 6562 ft
<b>Electrical</b>	
Power supply:	<ul style="list-style-type: none"> <li>• 110-240 V~</li> <li>• 24-48 V□</li> <li>• 12 V□</li> </ul>
Power 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)
<b>Output circuits ratings</b>	
Max. switching voltage:	<ul style="list-style-type: none"> <li>• 240 V~</li> <li>• 30 V□</li> </ul>
Max. switching current:	<ul style="list-style-type: none"> <li>• 16 A/240 V~</li> <li>• 10 A/30 V□</li> </ul>
<b>Sensors, meters</b>	
Internal-temperature sensor:	Yes
<b>Radio</b>	
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)
<b>Bluetooth</b>	
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)
<b>Microcontroller unit</b>	

CPU:	ESP-Shelly-C38F
Flash:	8MB
<b>Firmware capabilities</b>	
Schedules:	20
Webhooks (URL actions):	20 with 5 URLs per hook
Scripting:	Yes
MQTT:	Yes

## Basic wiring diagrams



## Legend

Terminals		Wires	
<b>I</b>	Load circuit input terminal	<b>L</b>	Live wire (110-240 V~)
<b>O</b>	Load circuit output terminal	<b>N</b>	Neutral wire
<b>SW</b>	Switch (controlling O) input terminal	<b>+</b>	12/24-48V DC positive wire
<b>+12V</b>	12 VDC positive terminal	<b>GND</b>	12/24-48VDC ground wire
<b>L</b>	Live terminal (110-240 V~)		
<b>N</b>	Neutral terminal		
<b>+</b>	24-48 VDC positive terminal		
<b>GND</b>	12/24-48VDC ground terminal		

## Components and APIs

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

## Compliance

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

## Printed user guide

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

## Installation guides



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