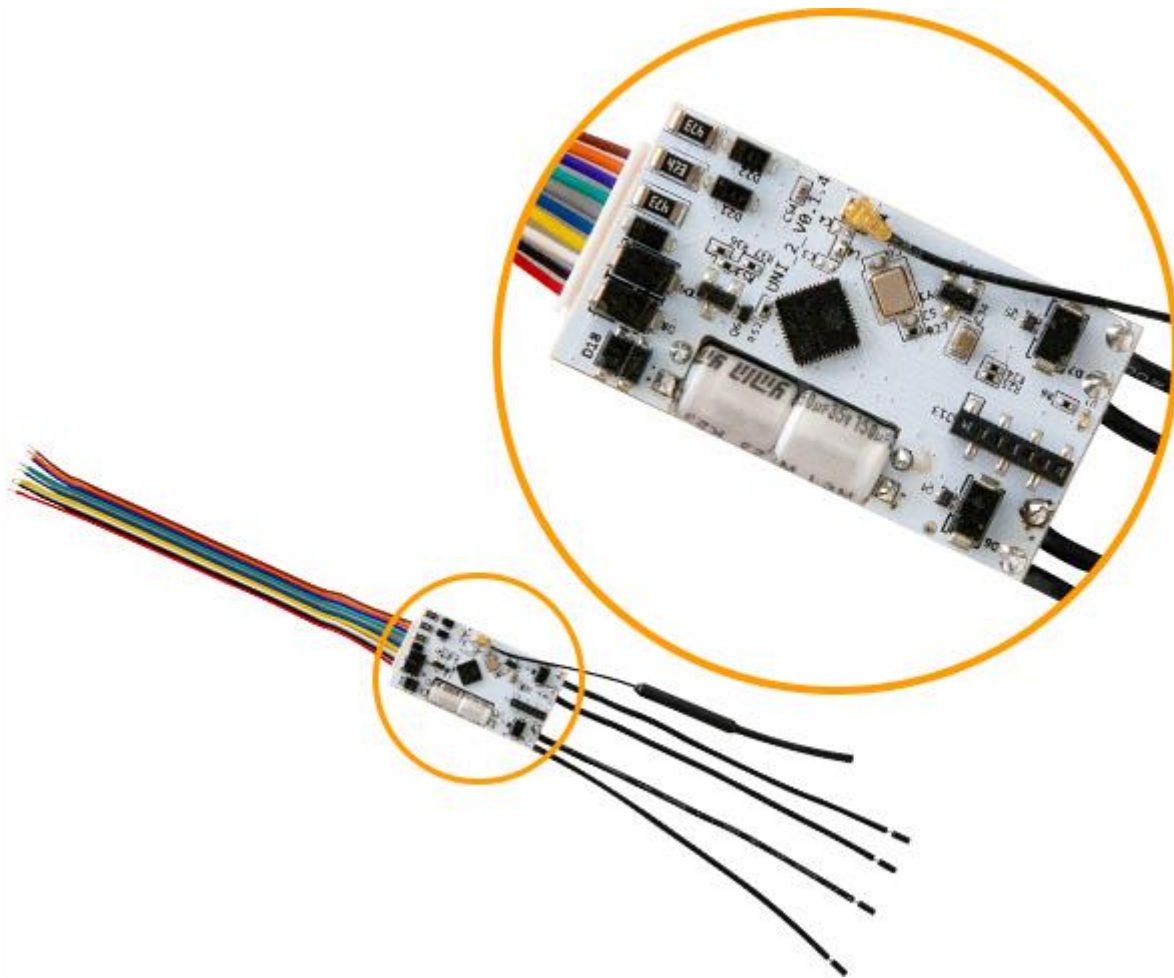




Device identification

- Device name: **Shelly Plus Uni**
- Device model: **SNSN-0043X**
- Device SSID: **ShellyPlusUni-XXXXXX**

Short description

Shelly Plus Uni (the Device) is a small form factor smart universal module featuring two solid state relays with potential free contacts, pulse counter, analog and two digital inputs. It allows remote control of electrical devices via mobile phone, tablet, PC or home automation system. It can operate standalone on a local Wi-Fi network or it can also be controlled via cloud-based home automation services.

Shelly Plus Uni 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.

Shelly Plus Uni has an embedded Web Interface which can be used to monitor and control the device, as well as adjust its settings.

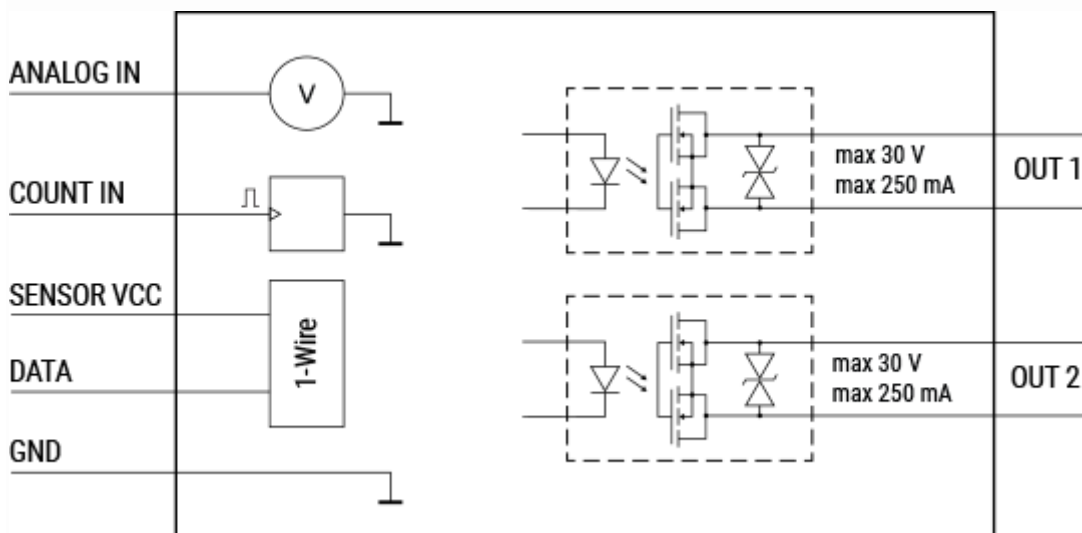
Main applications

- 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

- Google
- Samsung SmartThings
- Alexa

Simplified internal schematics



Device electrical interfaces

Power supply

- AC/DC power supply - VAC1 and VAC2
- DC power supply - +5 VDC and GND

Inputs

- 1 analog input - ANALOG IN
- 1 1-Wire data input - DATA
- 1 pulse counter input - COUNT IN
- 2 digital inputs - IN1 and IN2

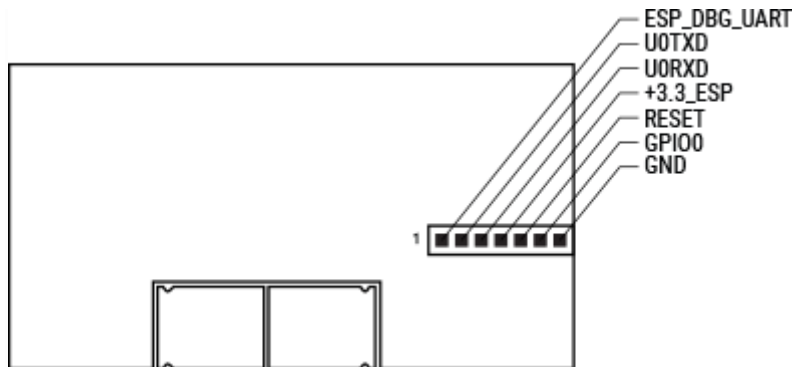
Outputs

- 1 sensors power supply output - SENSOR VCC

- 2 potential-free contacts solid-state relay outputs - OUT1 and OUT2

Addon interface

- Shelly proprietary serial interface



Connectivity

- Wi-Fi
- Bluetooth (for inclusion purposes)

Safety features

- PCB coating film

User interface

Inputs

- One (Reset) 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):
1/2 sec ON / 1/2 second OFF
- Button pressed and held for 5 seconds:
1/2 second ON / 1/2 second OFF
- Button pressed and held for 10 seconds:
1/4 second ON / 1/4 second OFF

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

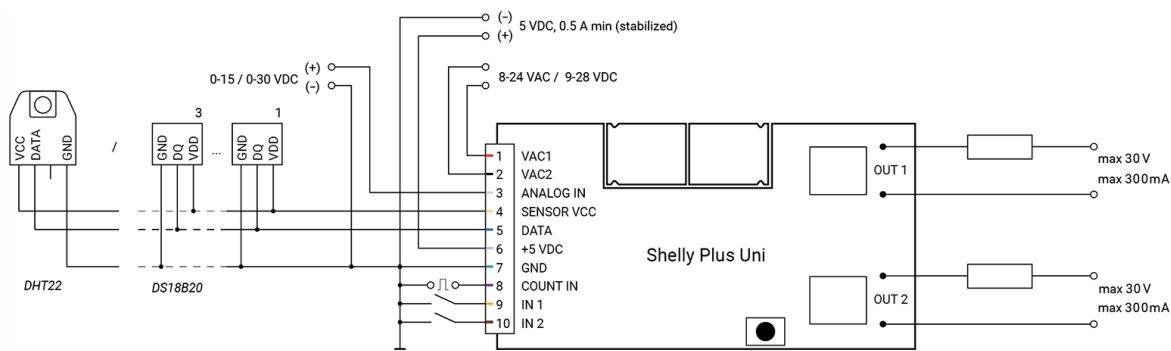
Specifications

Type	Value
Physical	
PCB size (LxWxH):	40x21x7 mm / 1.57x0.83x0.28 in
Weight:	8.5 g / 0.3 oz (with the cables)
Environmental	
Ambient temperature:	-20 °C to 40 °C / -5 °F to 105 °F
Humidity	30 % to 70 % RH
Electrical	
Power supply:	• 8-24 VAC • 9-28 VDC • 5 VDC (stabilized, via +5 VDC and GND)
Power consumption:	< 1 W
Input circuits ratings	
Digital inputs resistance:	50 kΩ
Digital inputs triggering voltage:	1.5 V (active low level)
Output circuits ratings	
Max switching voltage:	30 V
Max switching current:	300 mA
Sensors, meters	
Voltmeter:	0-15 VDC / 0-30 VDC (Two-range)

Voltmeter accuracy:	
Pulse counter input triggering voltage:	1.5 V (active low level)
Pulse counter max frequency:	1 kHz
External sensors supported:	Single DHT22 or up to five DS18B20
Radio	
RF band:	2400 - 2495 MHz
Max. RF power:	<20 dBm
Wi-Fi protocol:	802.11 b/g/n
Wi-Fi Range:	Up to 30 m / 100 ft indoors and 50 m / 160 ft outdoors (Depends on local conditions)
Bluetooth Protocol:	4.2
Bluetooth Range:	Up to 10 m / 33 ft indoors and 30 m / 100 ft outdoors (Depends on local conditions)
MCU	
CPU:	ESP32-U4WDH
Flash:	4 MB
Firmware capabilities	
Schedules:	20
Webhooks (URL actions):	20 with 5 URLs per hook
Scripting:	Yes
MQTT:	Yes
CoAP:	No

Basic wiring diagram

NOTICE! Shelly Plus Uni inputs are different from the previous Shelly Uni ones.



Legend

VAC1	<i>Red</i>	8-24 VAC / 9-28 VDC power supply input 1
VAC2	<i>Black</i>	8-24 VAC / 9-28 VDC power supply input 2
ANALOG IN	<i>White</i>	Analog input
SENSOR VCC	<i>Yellow</i>	Power supply for 1-Wire sensors
DATA	<i>Blue</i>	1-Wire data line
+ 5 VDC	<i>Gray</i>	5 VDC power supply positive input
GND	<i>Green</i>	5 VDC power supply ground input and Sensor ground
COUNT IN	<i>Purple</i>	Counter input
IN1	<i>Orange</i>	Digital input 1
IN2	<i>Brown</i>	Digital input 2
OUT 1	<i>Black</i>	Solid-state relay 1 terminals
OUT 2	<i>Black</i>	Solid-state relay 2 terminals