

Shelly Pro 3



Device identification

- Device name: **Shelly Pro 3**
- Device model: **SPSW-003XE16EU**
- Device SSID: **ShellyPro3-XXXXXX**

Short description

Shelly Pro 3 is a DIN rail mountable 3-channel smart relay with potential-free contacts, capable of switching 3 completely independent circuits, including 3-phase ones. Enhanced with all the gen2 firmware flexibility and LAN connectivity, it provides professional integrators with many more options for end customer solutions. It can work standalone in a local Wi-Fi network or it can also be operated through cloud home automation services.

Shelly Pro 3 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 Pro 3 has an embedded Web Interface which can be used to monitor and control the device, as well as adjust its settings.

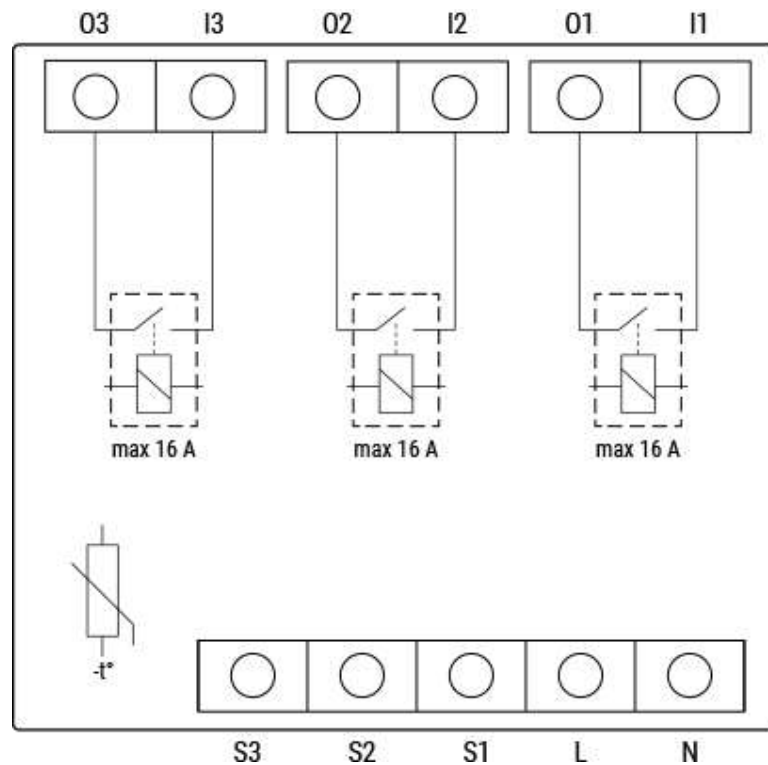
Main applications

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

Integrations

- Google
- Alexa
- Samsung SmartThings

Simplified internal schematics



Device electrical interfaces (\neq)

Inputs

- 3 switch/button inputs on screw terminals: **S1, S2** and **S3**
- 2 powers supply inputs on screw terminals: 1 **N** and 1 **L**
- 3 relay inputs: **I1, I2** and **I3**

Outputs

- 3 relay outputs: **O1**, **O2** and **O3**

Ethernet port

- 1 RJ45 connector

⚠CAUTION! Plug in or unplug the LAN cable only when the Device is powered off! The LAN cable must not be metallic in the parts touched by the user to plug in or unplug the cable.

Connectivity

- Wi-Fi
- Ethernet
- Bluetooth (for inclusion purposes)

Safety features

- Overheating protection

Supported load types

- Resistive (incandescent bulbs, heating devices)
- Capacitive (capacitor banks, electronic equipment, motor start capacitors)
- Inductive with RC Snubber (LED light drivers, transformers, fans, refrigerators, air-conditioners)

User interface

Inputs

- One tactile dome button
 - Press and hold 5 sec to reboot.
 - Press and hold 10 sec to factory reset.

Outputs

LED indication

- Power (red): Red light indicator will be on if power supply is connected.
- Wi-Fi (varies):
 - Blue light indicator will be on if in AP mode.
 - Red light indicator will be on if in STA mode, and not connected to a Wi-Fi network.

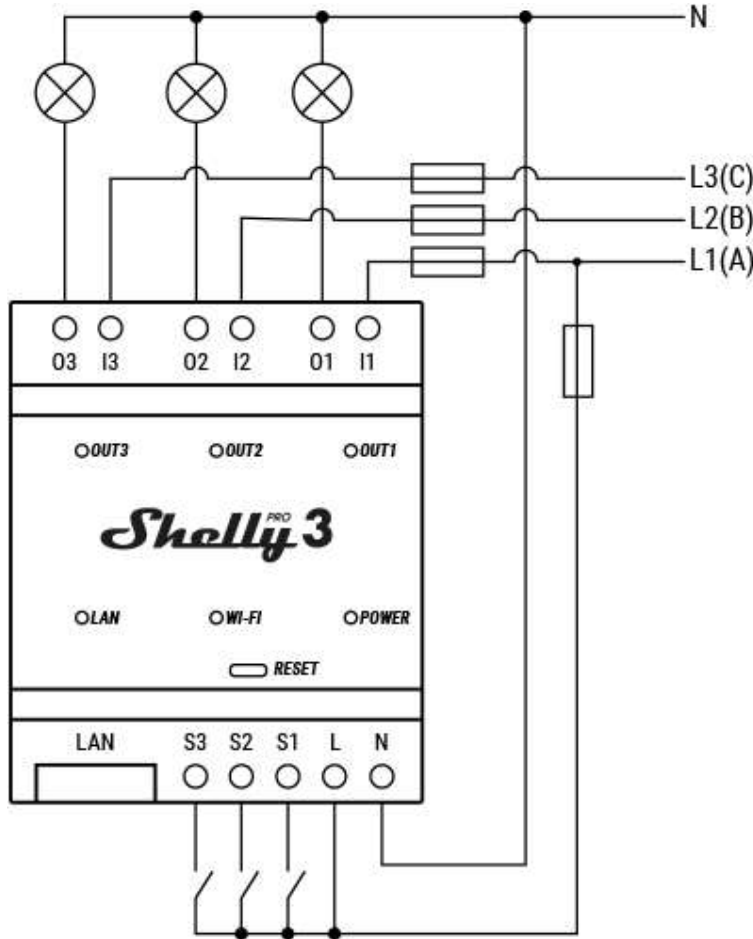
- Yellow light indicator will be on if in STA mode, and connected to a Wi-Fi network. Not connected to Shelly Cloud or Shelly Cloud disabled.
- Green light indicator will be on if in STA mode, and connected to a Wi-Fi network and the Shelly Cloud.
- The light indicator will be flashing Red/Blue if OTA update is in progress.
- LAN (green): Green light indicator will be on if LAN is connected.
- Out 1 (red): Red light indicator will be on if the Output 1 relay is closed.
- Out 2 (red): Red light indicator will be on if the Output 2 relay is closed.
- Out 3 (red): Red light indicator will be on if the Output 3 relay is closed.

Specifications

Type	Value
Physical	
Size (HxWxD):	96x53x59 ±0.5 mm / 3.78x2.01x2.32 ±0.02 in
Weight:	
Mounting:	DIN rail
Screw terminals max torque:	0.4 Nm / 4.43 lbin
Conductor cross section:	0.5 to 2.5 mm ² / 20 to 14 AWG
Conductor stripped length:	6 to 7 mm / 0.24 to 0.28 in
Shell material:	Plastic
Color:	Black
Environmental	
Ambient 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 voltage AC:	110 - 240 V
Power supply voltage DC:	N/A
Power consumption:	< 3 W
Neutral not needed:	No
Output circuits ratings	
Max switching voltage AC:	240 V
Max switching voltage DC:	30 V
Max switching current AC:	16 A per channel, 48 A total
Max switching current DC:	16 A per channel, 48 A total
Sensors, meters	
Temperature sensor:	Yes
Radio	
Wi-Fi	

Protocol:	802.11 b/g/n
Frequency:	2412 - 2472 MHz; (Max. 2495 MHz)
Max. RF output power:	13.35 dBm
Range:	Up to 30 m / 100 ft indoors and 50 m / 160 ft outdoors (Depends on local conditions)
Bluetooth	
Protocol:	BLE 4.1
Frequency:	2402 - 2480 MHz (Max. 2483.5 MHz)
Max. RF output power:	4.25 dBm
Range:	Up to 10 m / 33 ft indoors and 30 m / 100 ft outdoors (Depends on local conditions)
MCU	
CPU:	ESP32
Flash:	8 MB
Firmware capabilities	
Schedules:	20
Webhooks (URL actions):	20 with 5 URLs per hook
Scripting:	mJS
MQTT:	Yes
CoAP:	No

Basic wiring diagram



Legend

Terminals		Cables	
L1, I2, I3	Load circuit input terminals	L1(A)	Load circuit 1 live (110-240 V) cable

Terminals		Cables	
O1, O2, O3	Load circuit output terminals	L2(B)	Load circuit 2 live (110-240 V) cable
S1, S2, S3	Switch/button input terminals	L3(C)	Load circuit 3 live (110-240 V) cable
L	Live (110-240 V) terminal	N	Neutral cable
N	Neutral terminal		
LAN	Local Area Network RJ 45 connector		