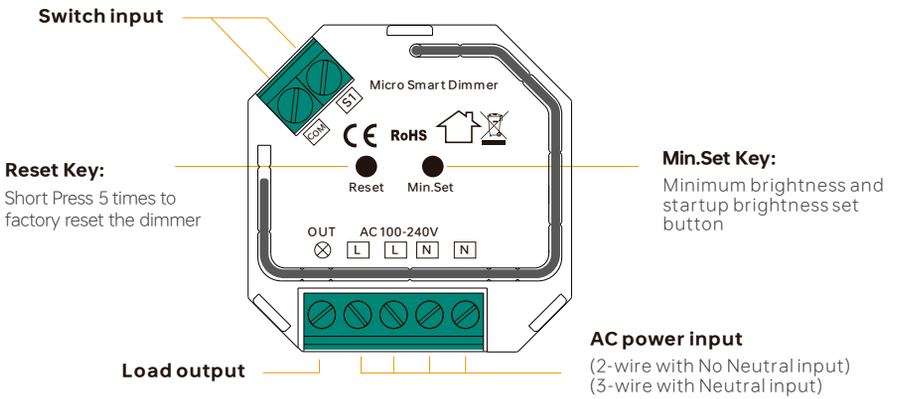
Matter Over Thread Mini Smart Dimmer

Function Introduction

- **Important:** Read All Instructions Prior to Installation.



Product Data

Input Voltage	Output Voltage	Output Current	Size (LxWxH)
100-240VAC	100-240VAC	1.8A Max	45.5x45x20.3mm

Compatible Load Types			
Load Symbol	Load Type	Maximum Load	Remarks
	Dimmable LED lamps	200W @ 230V 100W @ 110V	Due to variety of LED lamp designs, maximum number of LED lamps is further dependent on power factor result when connected to dimmer.
	Dimmable LED drivers	200W @ 230V 100W @ 110V	Maximum permitted number of drivers is 200W divided by driver nameplate power rating.
	Incandescent lighting, HV Halogen lamps	400W @ 230V 200W @ 110V	
	Low voltage halogen lighting with electronic transformers	200W @ 230V 100W @ 110V	

Features

- Matter certified light devices over thread
- 100-240VAC wide input and output voltage
- Supports resistive loads, capacitive loads or inductive loads
- 1 channel output, up to 400W
- Input and output with screw terminals, safe and reliable
- Trailing edge dimming
- App control through Matter (e.g. Apple Home, Amazon Alexa, Google Home)
- Fully compatible with universal Matter ecosystems from different manufacturers
- Can be voice controlled through Apple Siri, Google Assistant, Amazon Alexa
- Mini Size, easy to be installed into a standard wall box
- Waterproof grade: IP20

Main Features:

- Can operate under two-wire connection with no neutral lead or three-wire connection with neutral lead
- Advanced microprocessor control
- Implemented algorithm of smart light source detection
- Active power and energy metering functionality
- Soft start function
- Innovative minimum dimming level and startup brightness setting function
- Works with various types of switches – momentary, toggle, three-way, etc.
- Active element: semiconductor electronic switch
- To be installed in wall switch boxes of dimensions allowing for installation, conforming to provisions of applicable regulations
- The Bypass is an extension unit

As a dimmer it operates under the following loads:

- Conventional incandescent and HV halogen light sources
- ELV halogen lamps and dimmable LED bulbs (with electronic transformers)
- MLV halogen lamps (with ferromagnetic transformers)
- Dimmable LED bulbs
- Dimmable compact fluorescent CFL tube lamps
- Supported dimmable light sources (power factor > 0.5) with minimal power of 3VA using the Bypass (depending on the type of load)

Safety & Warnings

- DO NOT install with power applied to the device.
- DO NOT expose the device to moisture.

Operation

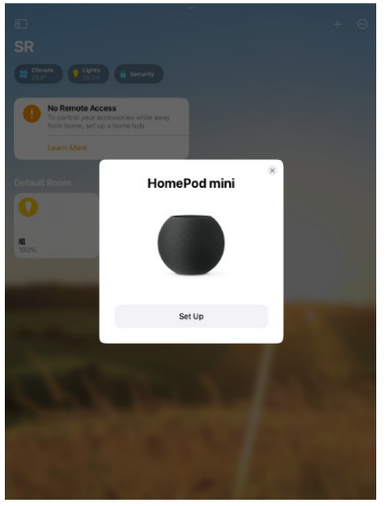
1. Do wiring according to connection diagram correctly. (See P9-10)
2. This Matter thread device is a wireless receiver that communicates with a variety of Matter compatible systems. This receiver receives and is controlled by wireless radio signals from the compatible Matter system.

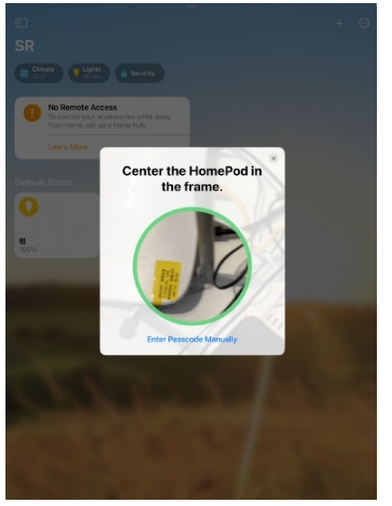
3 Add to a Matter gateway and control through the gateway:

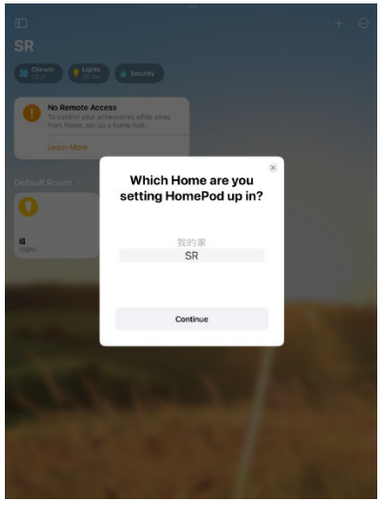
Note: An Apple HomePod mini is used as a Matter border router for adding and controlling the device. For other Matter border routers, please refer to their user manuals to learn how to add and control Matter devices.

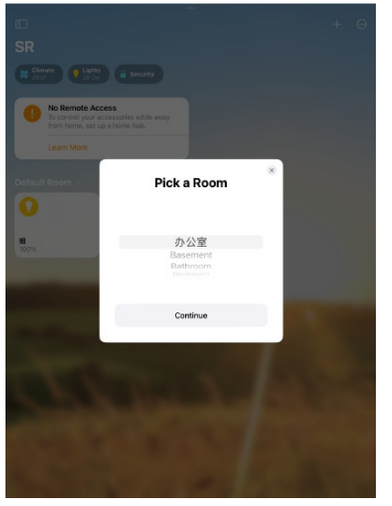
Step 1: Prepare an iPhone (iOS 16.2 or later) or iPad (iPadOS 16.2 or later) with the latest version firmware, and prepare an Apple HomePod mini with the latest version firmware.

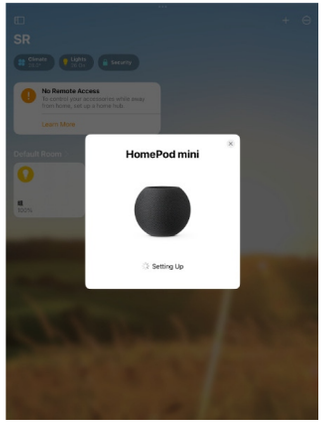
Step 2: Connect the iPhone or iPad to your home WLAN network. Run the Apple Home app and set up the HomePod mini as instructed by Apple (as shown in Figure 1 to Figure 7).

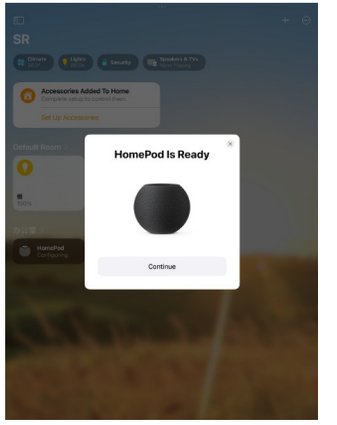
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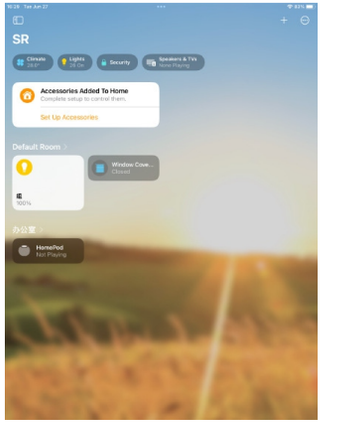
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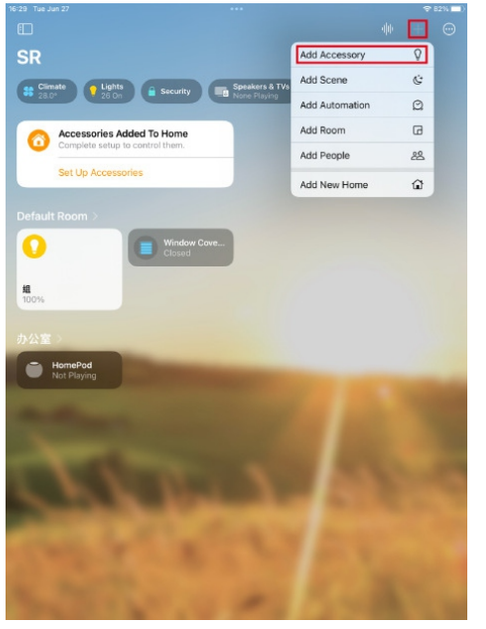
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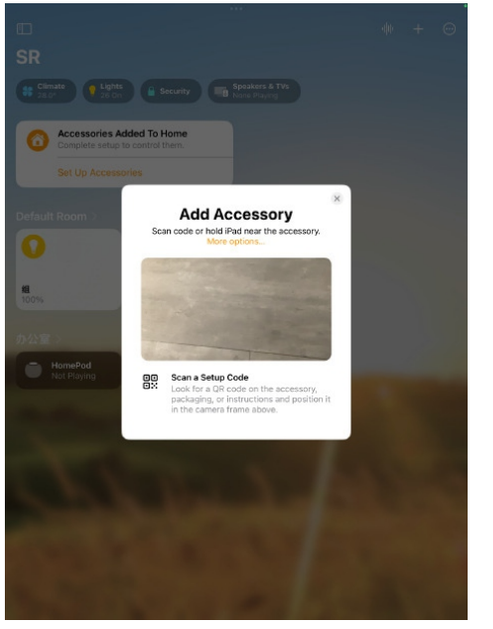
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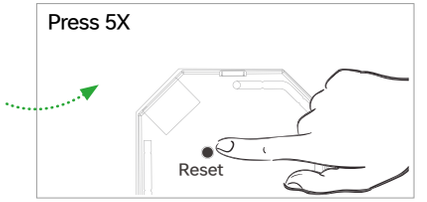
Step 3: Do wiring of the Matter thread dimmer according to the wiring diagram (See P9-10) and power on it.

Step 4: Add the Matter thread dimmer to the Apple Home app by scanning the QR code sticker on the dimmer as shown in Figure 8 to Figure 15.

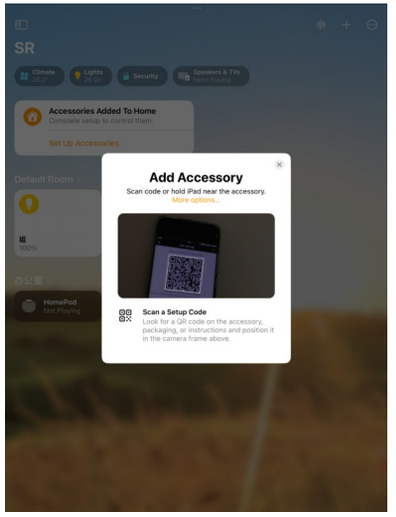
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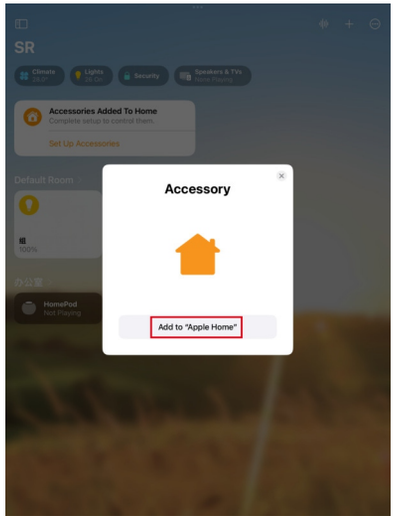
Note: Before scanning the QR coder sticker on the dimmer as shown in Figure 10, short press the reset button 5 times to reset the dimmer so that it can be discovered by the Apple Home app. Otherwise if it has already been added to another gateway, current gateway can not discover and add it.



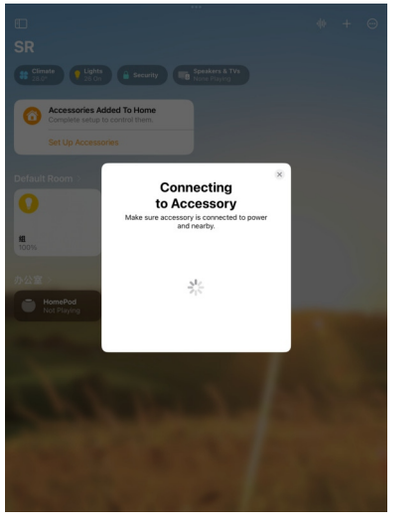
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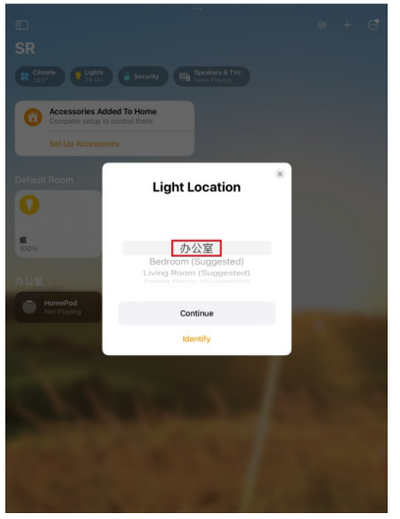
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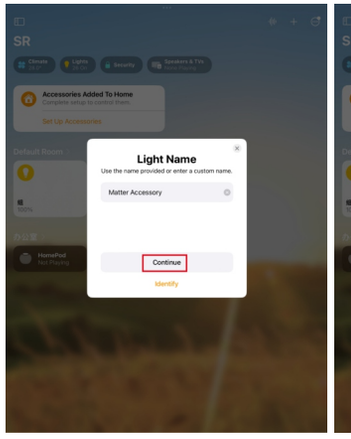
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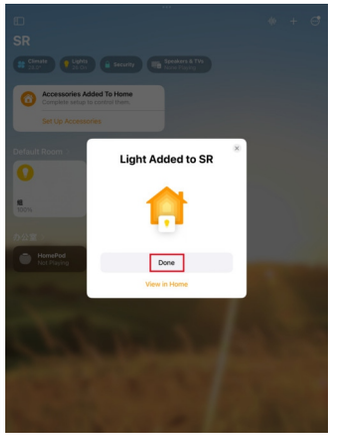
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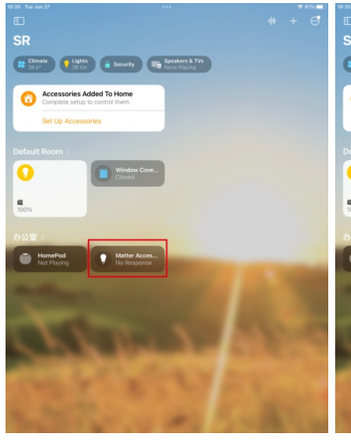
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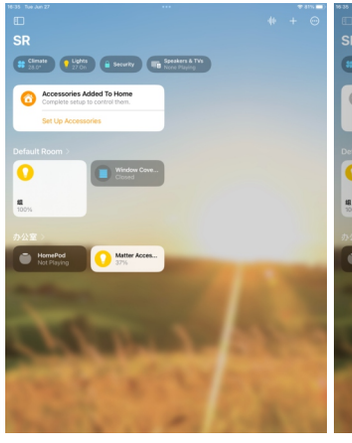
Note: When choose the room that you would like to add the dimmer to, please make sure to choose the same room that the HomePod mini is located as shown in Figure 13.

Step 5: Once the dimmer is added to the gateway successfully, tap on the device to control on/off and brightness of the dimmer as shown in Figure 16 to Figure 18.

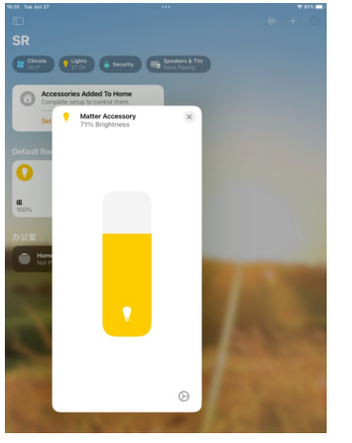
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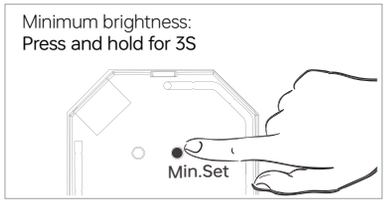
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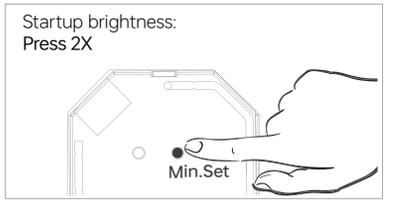
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4 Minimum and Startup Brightness Setting Button



Press and hold down the button for 3 seconds to set minimum brightness: when current brightness value is 1%-50%, it will be set as minimum brightness. When current brightness value is 100%, previously set minimum brightness will be deleted. Once a minimum brightness is set, the connected load can not be dimmed below this level.



Short press the button twice to set startup brightness: when current brightness value is 1%-50%, it will be set as startup brightness. When current brightness value is 0%, previously set startup brightness will be deleted.

Note:

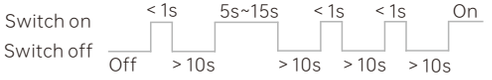
startup brightness setting function is to avoid the phenomenon that some dimmable LED drivers can not be turned on after dimmed to a low level and turned off. Once setting a startup brightness, if the startup brightness is higher than dimmed level before turned off, the driver will first go to the startup brightness after turned on then drop down to the dimmed level. If the startup brightness is lower than the dimmed level before tured off, the driver will directly go to the dimmed level after turned on.

5 Controlled by a push switch

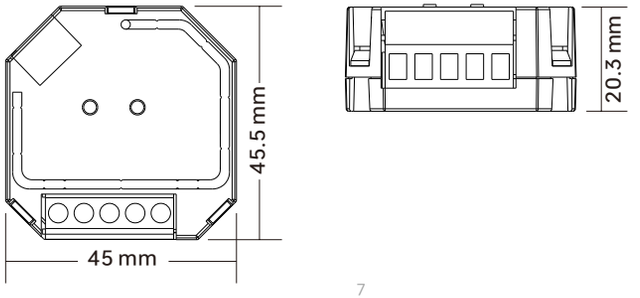
Once connected with a push switch, click the push switch to switch ON/OFF, press and hold down it to increase/ decrease light intensity.

6 Restore factory settings

To restore the factory settings, short press the “Reset” button 5 times or switch the device power on and off in the following sequence.



Product Dimension



Wiring Diagram

*** Notes for the diagrams:**

L - terminal for live lead
N - terminal for neutral lead
Out - output terminal of the dimmer (controlling connected light source)
S1 - terminal for switch
COM - terminal for grounding to the switch connected to the dimmer

*** Supported Switch Types:**
The switch types this device supports can be configured by factory setting:

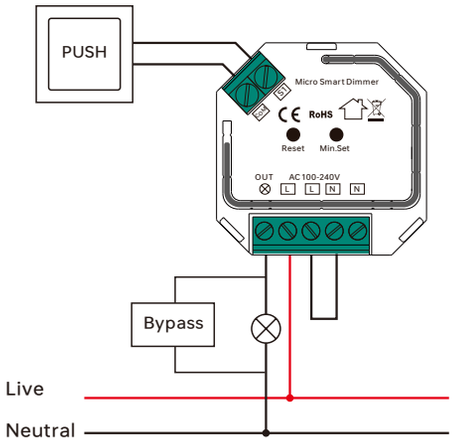
1. Push Switch (factory default setting)
2. Toggle On/Off Switch (can be configured by factory setting upon request)

*** Compatible load types and recommended values of power for supported loads:**

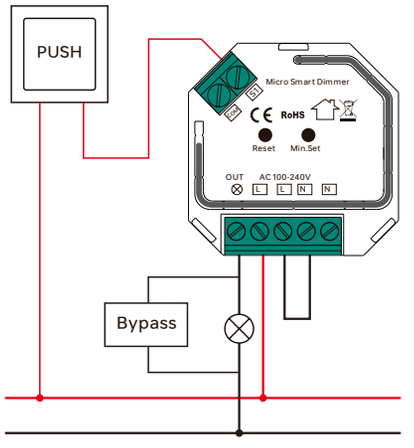
Supported load types		100-240V~	
	**Resistive loads** Conventional incandescent and halogen light sources	20-400W @ 230V 20-200W @ 110V	
	**Capacitive loads** Fluorescent tube lamp (compact / with electronic ballast), electronic transformer, LED	Using Bypass: 3-200W @ 230V 3-100W @ 110V	No Bypass Used: 20-200W @ 230V 20-100W @ 110V
	**Inductive loads** Ferromagnetic transformers	20-200W @ 230V 20-100W @ 110V	

(1) 2-Wire Connection With No Neutral Lead

With PUSH LV



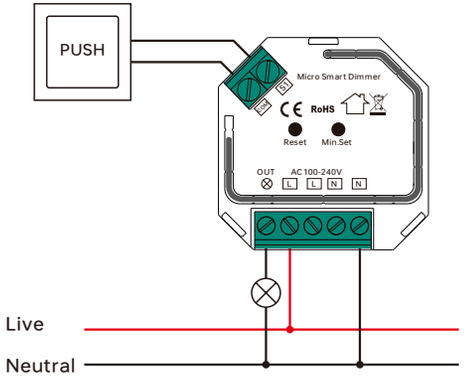
With PUSH



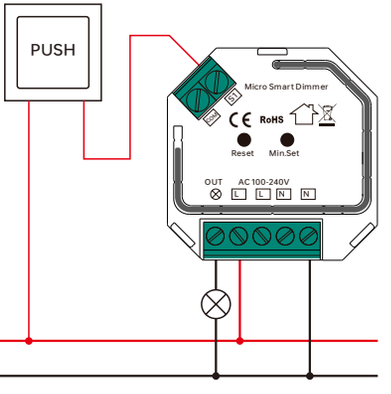
NOTE: Switch connected to the S1 terminal activates the basic functionality of the dimmer (turning the light on/off, dimming).The Bypass is a device designed to work with the micro smart dimmer. It should be used in case of connecting LED bulbs or energy saving compact fluorescent lamps. The Bypass prevents flickering of the LED lights and glowing of the turned off compact fluorescent lamps. In the case of 2-wire connection, the Bypass allows to reduce minimum power of load required by the dimmer for correct operation. The Bypass provides powering of the dimmer in case of controlling the low loads of minimum power down to 3W (for cosϕ>0.5).

(2) 3-Wire Connection With Neutral Lead

With PUSH LV



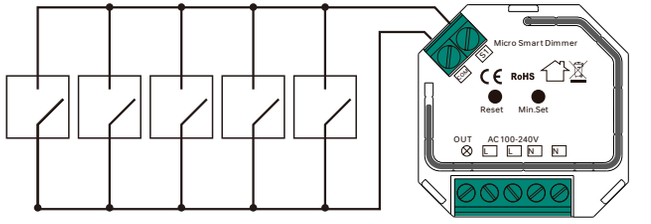
With PUSH



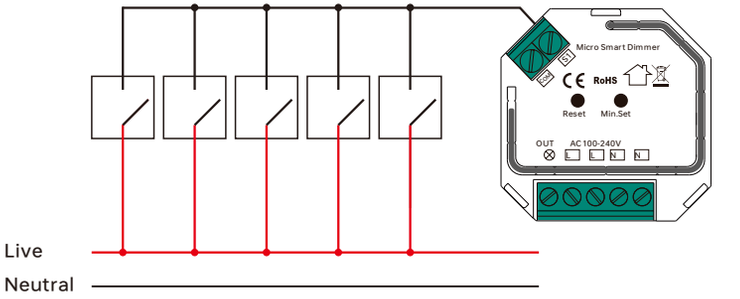
NOTE: Switch connected to the S1 terminal activates the basic functionality of the dimmer (turning the light on/off, dimming).

(3) Multiple Momentary or Push Switches Connection

With PUSH LV



With PUSH



This phase dimmer adopts leading edge dimming (forward phase control) or trailing edge dimming (reverse phase control), two versions are available for choosing, factory default version is trailing edge. Please make sure the connected loads support the control type you choose. Please refer to the user manual of the load or consult the supplier of the load.