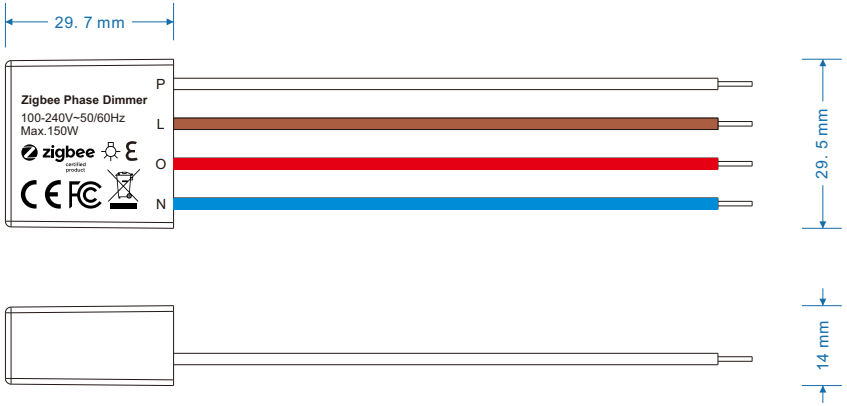
ZigBee Micro Smart Dimmer

Important: *Read All Instructions Prior to Installation*

Function introduction



Product Data

Input Voltage	Output Voltage	Output Current	Size(LxWxH)
100-240VAC	100-240VAC	0.1-0.65A	29.7x29.5x14mm

Compatible Load Types			
Load Symbol	Load Type	Maximum Load	Remarks
	Dimmable LED lamps	150W @ 230V 75W @ 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	150W @ 230V 75W @ 110V	Maximum permitted number of drivers is 150W divided by driver nameplate power rating.
	Incandescent lighting, HV Halogen lamps	150W @ 230V 75W @ 110V	
	Low voltage halogen lighting with electronic transformers	150W @ 230V 75W @ 110V	

ZigBee Clusters the device supports are as follows:

Input Clusters

• 0x0000: Basic • 0x0003: Identify • 0x0004: Groups • 0x0005: Scenes • 0x0006: On/off

• 0x0702: Simple Metering • 0x0008: Level Control • 0x0b04: Electrical Measurement • 0x0b05: Diagnostics

Output Clusters

• 0x0019: OTA

• ZigBee AC phase cut dimmer based on latest ZigBee 3.0 protocol
• 100-240VAC Wide Input and Output Voltage
• Supports resistive loads, capacitive loads or inductive loads
• 1 Channel Output, Up to 150W
• Trailing edge dimming
• Enables to control ON/OFF and light intensity of connected light source
• ZigBee end device that supports Touchlink commissioning
• Can directly pair to a compatible ZigBee remote via Touchlink without coordinator
• Compatible with universal ZigBee gateway products
• Supports power metering
• Over load protection and over temperature protection
• Ultra Mini Size

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

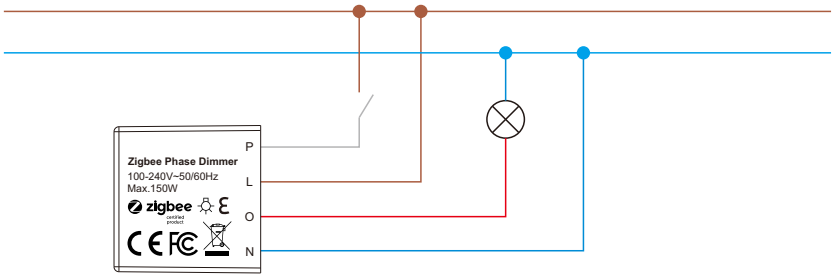
• DO NOT install with power applied to device.
• DO NOT expose the device to moisture.

Wiring Diagram

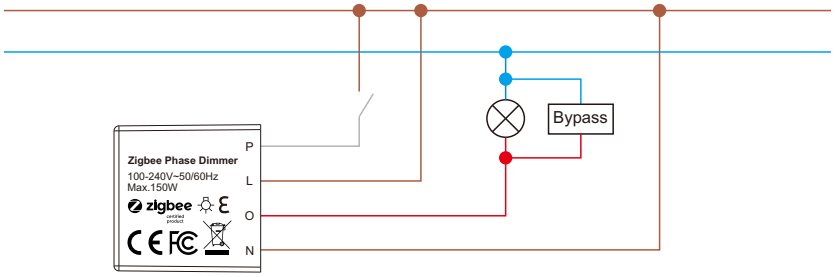
Notes for the diagrams:

L - for live lead
N - for neutral lead
O - output of the dimmer (controlling connected light source)
P - for switch

Method 1: With neutral



Method 2: Without neutral

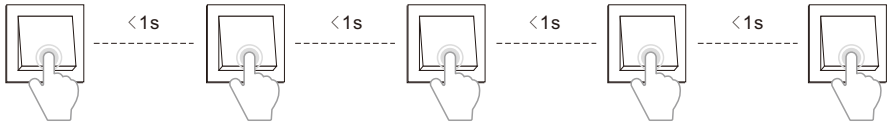


* When using the device without neutral, the smart dimmer requires at least 20W @ 240 VAC of power consumption to operate. If the connected light has a smaller power consumption, then Bypass is needed for the device to work.

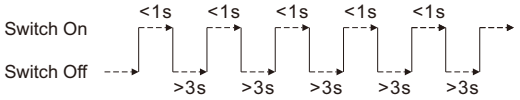
Operation

Enter Zigbee network Pairing mode or Zigbee network reset

Method 1: Press the external push button continuously for five times (Disabled by default. Can be enabled at the factory upon customer request.)



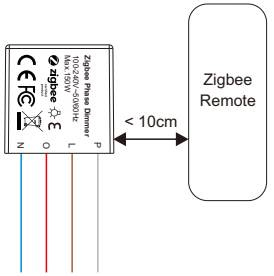
Method 2: Continuously reset the power of the device for five times



*** If the device had been added into the other zigbee network, please reset it first**

TouchLink to a Zigbee Remote

Step 1: When power on this dimmer, it will enter Touchlink mode automatically, 180S timeout, power off and power on again.
Step 2: Bring the remote or touch panel within 10cm of the dimmer.
Step 3: Set the remote or touch panel into Touchlink commissioning, please refer to corresponding remote or touch panel manual to learn how.
Step 4: There shall be indication on the remote for successful link and connected light will flash twice.



Note:
1) Directly TouchLink (both not added to a ZigBee network), each device can link with 1 remote.
2) TouchLink after both added to a ZigBee network, each device can link with max. 30 remotes.
3) To control by both gateway and remote, add remote and device to network first then TouchLink.
4) After TouchLink, the device can be controlled by the linked remotes.