LDT-PNL-ZB-AC-DIM-KNOB

Rotary Zigbee AC Phase-Cut Dimming Panel

A wall-mounted AC dimming panel for compatible phase-cut-dimmable LED lamps/drivers and suitable incandescent or halogen loads. The local rotary knob handles switching and brightness.

Model specifications

Supply voltage	100-240 VAC
Output type	1-channel AC phase-cut dimming
Maximum output current	1.5 A
Nominal output power	150-360 W; load-type limits also apply
Dimmable LED load	100 W at 110 V / 200 W at 220 V
Control inputs	Zigbee + local rotary knob; no proprietary RF remote
Phase-cut selection	Leading edge or trailing edge; set before energising
Dimming	0-100%; 256 levels
Published wireless distance	15 m, unobstructed
Minimum brightness setting	5%, 10%, 15%, 20%, 25% or 30%
Protection	Overheat and overload
Operating temperature	-30 to +55 °C
Maximum case temperature	+85 °C
IP rating	IP20
Body dimensions	86 x 86 x 48 mm

Neutral wiring is required. The 150-360 W nominal figure is not an LED load allowance: the specified LED limits are 100 W at 110 V and 200 W at 220 V. Observe 1.5 A and the documented inrush limit; higher load-table wattages do not override the current rating.

The following technical-reference pages retain the complete diagrams, dimensions, settings and installation instructions. Select the lighting variant stated on this cover; family diagrams may also illustrate other variants.

Triac

Rotary Glass Panel ZigBee Triac Dimmer

- Rotary glass panel ZigBee AC phase-cut dimmer, 1 channel output.
- **Control app cloud control, support on/off, brightness adjust,** delay turn on/off light, timer run, scene edit function.
- Philips HUE APP control by connect with Philips HUE bridge.
- Voice control, support for Amazon Alexa, Google Assistant, Tmall Genie and Xiaodu voice assistant.
- To dim and switch single color dimmable LED lamps, traditional incandescent and halogen lights.
- Rotate knob to change brightness, support push and long push operation.
- 256 levels 0-100% dimming smoothly without any flash.
- Leading edge dimming or trailing edge dimming set by dip switch.
- Light on/off fade time 3s selectable.
- Over-heat / Over-load protection, recover automatically.
- White & Black glass panel available.





CE RoHS

Technical Parameters

Input and Output	
Input voltage	AC100-240V
Input current	1.5A
Output voltage	AC100-240V
Output current	1.5A
Output power	150-360W

Warranty and Protection	
Warranty	5 years
Protection	Over-heat / Over-load

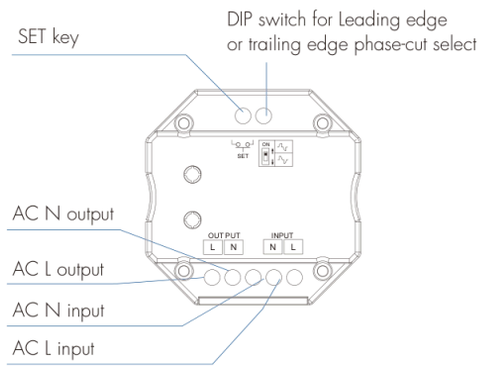
Dimming data	
Input signal	ZigBee + Rotary knob
RF Control distance	15m(Barrier-free space)
Dimming level	256 levels
Dimming range	0-100%

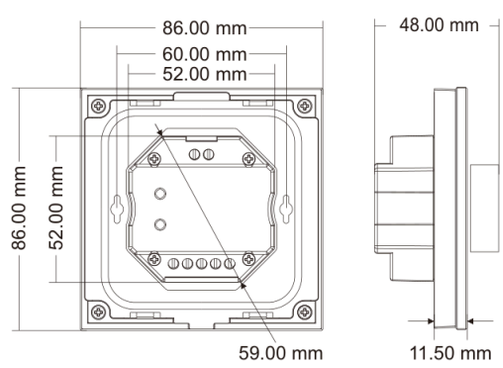
Environment	
Operation temperature	Ta: -30 ℃ ~ +55 ℃
Case temperature (Max.)	Tc: +85 ℃
IP rating	IP20

Safety and EMC	
Safety standard	EN IEC 55015/EN IEC 61547 ETSI EN 301 489-1/-3/-17
EMC standard	EN 60669-1/-2
Radio Equipmen	ETSI EN 300 440 ETSI EN 300 328
Certification	CE RoHs

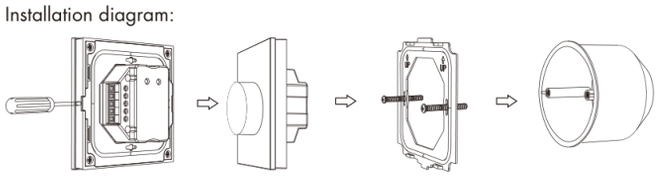
Package	
Size	L112 x W112 x H60mm
Gross weight	0.234kg

Mechanical Structures and Installations



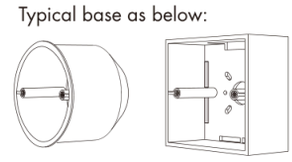


Installation diagram:



Uninstall | Rotary panel | Baseplate | Base

Typical base as below:



European style | 86 size

Knob Function

- Push: Turn on or off light.
  After turn on light:
- Rotate: Rotate knob to adjust brightness, 2.5 turns, 50 levels.
- Long push(1-6s): Continuous 256 levels brightness adjustment.

Compatible Load Types

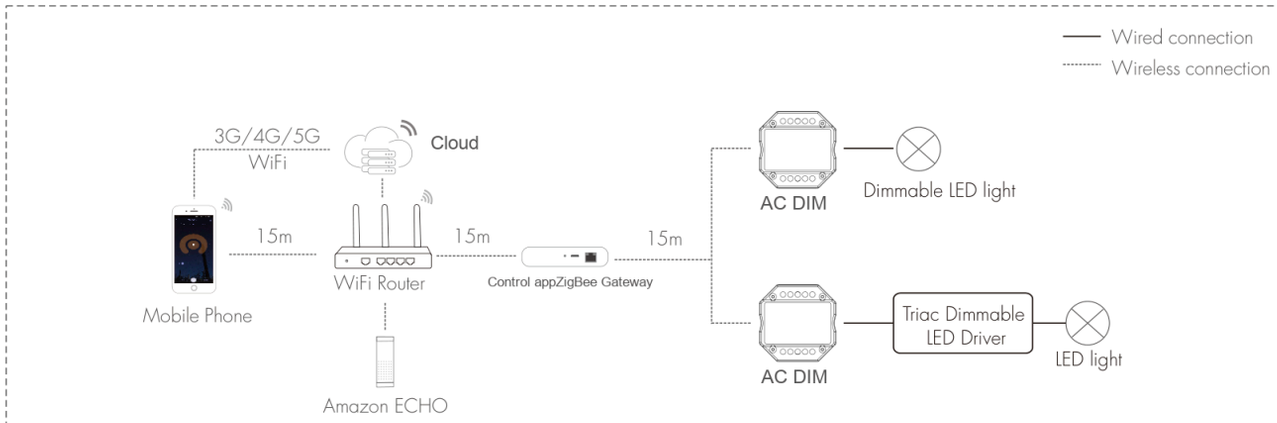
Load type	Maximum load	Remarks
Dimmable LED lamps	200W @ 220V 100W @ 110V	Due to variety of LED lamp designs, maximum number of LED lamps is further dependent on power factor result when connected to dimmer.
Triac dimmable LED drivers	200W @ 220V 100W @ 110V	Maximum permitted number of drivers is 200W divided by driver rated input power, and make sure the surge current is no more than 2 times 65A.
Incandescent lighting, HV halogen lamps	400W @ 220V 200W @ 110V	

Recommended number of load connection

Load type	Output power per load	Quantity
Dimmable downlight	5.5W @ 220V~240V	20
Triac dimmable LED driver	12W @ 200V~240V	15
Triac dimmable LED driver	36W @ 200V~240V	4
Triac dimmable LED driver	75W @ 200V~240V	2

Because different manufacturers triac dimmable LED driver rated input power is different,
you can refer to the formula to calculate the max. number of LED driver. Formula: D max = 200W/RP,
at the same time need to meet the sum of the surge current (I_{surge}) does not exceed 130A.
For example: triac dimmable LED driver rated input power(RP) =15.4W, surge current =10A/230VAC,
Then D max= 200/15.4 =13(pcs), I_{surge}=13*10 =130A, the max. number of triac dimmable LED driver is 13.

System Wiring

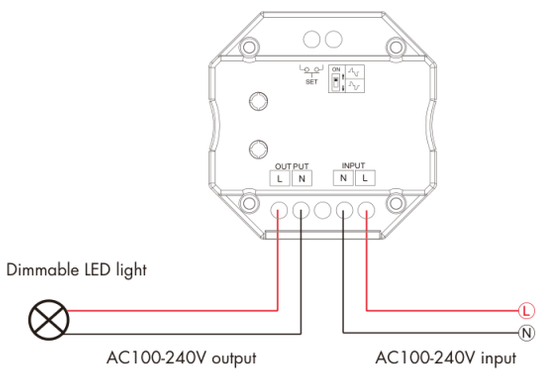


Note:
1. The above distance is measured in spacious (no obstacle) environment, please refer to the actual test distance before installation.
2. Users must use the Control appZigBee gateway to realize remote control and voice control.

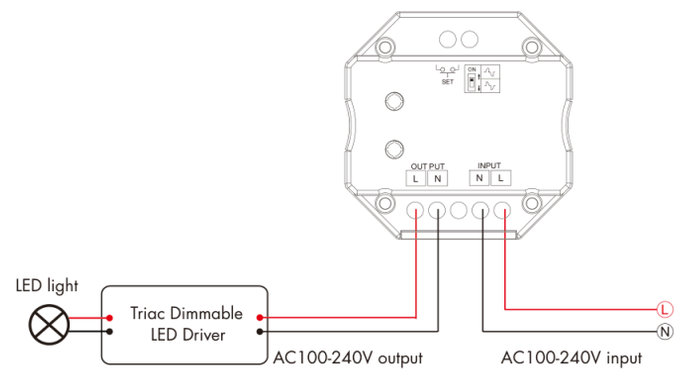
Wiring Diagram

⚠ Caution:Please carefully ensure all wire connections and polarities are correct and secure before applying power, otherwise this controller will be damaged.

- Connect with dimmable LED light



- Connect with Triac dimmable LED driver



Min brightness setting

Long press SET key for 10s, the light blink 2 times, ready for min brightness set, then short press Min set key 1-6 times,
to get 6 min brightness: 5%, 10%, 15%, 20%, 25% or 30%, the light will output the current min brightness immediately,
wait 8s, quit min brightness set automatically, the light will return output 100% brightness.

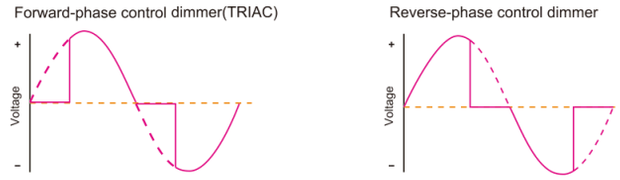
Light on/off fade time

Long press SET key 15s, the indicator blinks 3 times, restore factory default parameter, the light on/off time also restore to 0.5s.
Long press SET key 20s, the indicator blinks 4 times, the light on/off fade time is set to 3 s.

Leading Edge or Trailing Edge Dimming Setting

Select leading edge(forward-phase) dimmer or trailing edge(reverse-phase) dimmer according to dimmable LED light or driver.





Caution: before power on, you must confirm the selection of dip switch.

Control app Network Connection and Operation

Please download the corresponding Smart Life app according to your region.

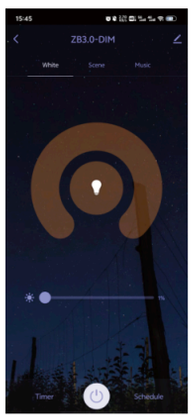
Five methods to clear the previous network connection, enter config mode, the LED indicator flash fastly 10 time.

1. Press and hold SET key for 5s.
2. Push twice SET key fastly.
3. Dimmer power off and on for 5 consecutive times fastly.
4. Short press the knob to turn on/off the light 3 times fastly and immediately long press the knob for 5s.
5. The moment the dimmer is powered up, press and hold the knob for 5s.

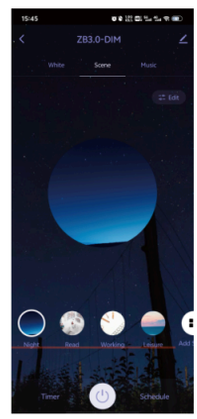
Under the ZigBee Gateway interface, search and add ZigBee devices,
If Control app network connection succeed, the indicator will stop flash,
and in Control app, you can find ZB3.0-DIM device.

Smart life APP

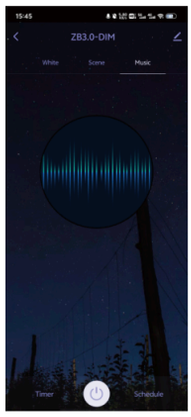
Control app interface



White interface
Click ⏻ ,Turning lights on or off,
Touch brightness slide to adjust brightness.



Scene interface
The 1-4 scene is static color.
the inner color of these scene can be editable



Music, Timer, Schedule
The music play can use smart phone music player or micro-phone as music signal input.
The Timer key can turn on or turn off light in the next 24 hours.
The Schedule key can add multiple timers to turn on or turn off light according to different time periods.