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|---|---|
|  | **MANUAL** |



# WIRELESS DIMMER MINI WALL MODULE MWMR-250

## CONTENTS

# 1. Overview and features

Remotely controlled 250W universal Mini Dimmer Wall Module is designed to control existing dimmable LED, dimmable energy saving lamp, incandescent lamp, 230V~ halogen lamp and 12V halogen lamp with inductive transformer or electronic transformer.
Especially designed for Rocker Switch control.

**Main features of Mini Wall Module;**

- Compatible to L and M series.
- Operating mode of Trailing Edge or Leading Edge.
- Ability to work with existing rocker switch for On / Off / Dimmer function.
- Minimum brightness setup for different kinds of dimmer loads.
- Small compact size for installation into wall box or inside light fittings
- 32 memories, first in first out storage maintain.
- Memory of last brightness level.
- Scene status memory, create your desired atmosphere.
- 2-way switch function.

**Supported Load;**
- 230V operated conventional incandescent and halogen light source
- 12V electronic transformers
- 12V inductive transformers
- Dimmable and non-dimmable energy saving lamp
- Dimmable and non-dimmable LED
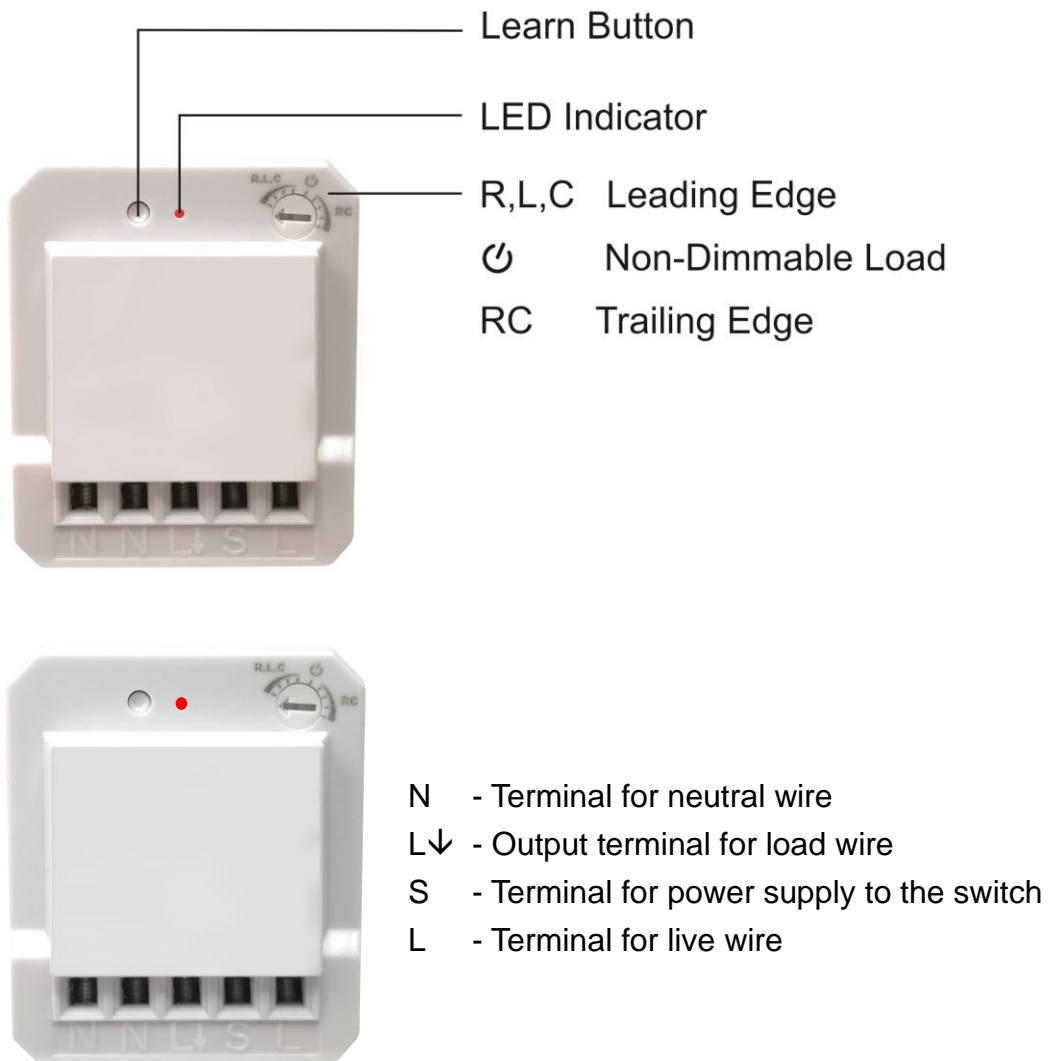
⚠ Not compatible to:

Fluorescent lamp
Momentary / push button switch
ARC Code switch system product range

Issue Date: 03/08/2022

# 2. Diagrams

Notes for the diagrams:



Learn Button

LED Indicator

R,L,C  Leading Edge

⏻     Non-Dimmable Load

RC    Trailing Edge



N   - Terminal for neutral wire
L↓  - Output terminal for load wire
S   - Terminal for power supply to the switch
L   - Terminal for live wire

- Strip the solid wires (rigid conductor only) at least 7mm then connect the wires as per diagrams below, ensure terminals are properly tightened and no bare wire is visible.
- Suitable wire size for terminal is 1.6mm$^2$ to 2mm$^2$



7mm

DIAGRAMS
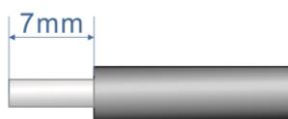
# 3. Installation - Wiring

⚠ Cut off main power before installing and wiring.

Current existing house wiring should be as below.
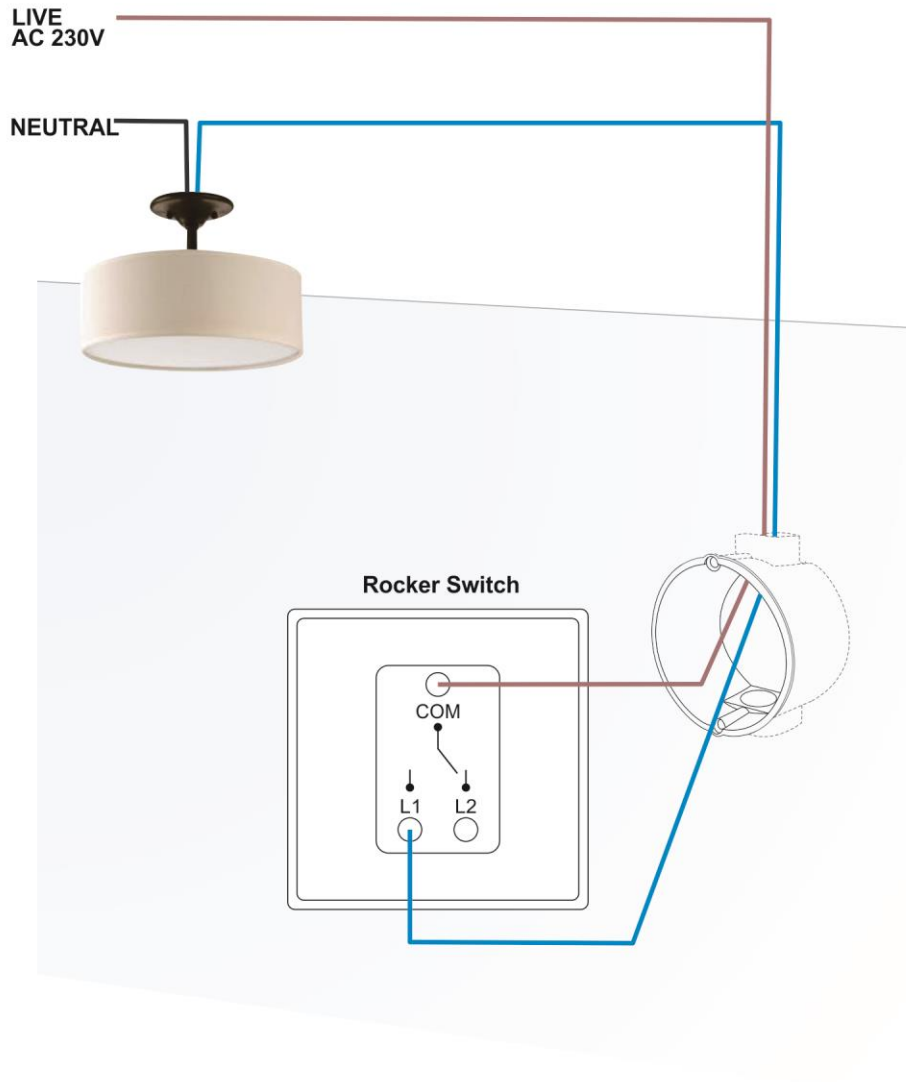
**Add mini module with one way operation**

1. Connect permanent Live wire into module terminal 'L'.
2. Connect Neutral wire into module terminal 'N'.
3. Connect wire from module terminal ' L↓ & N' to Load.
4. Connect switch Live wire from module terminal 'S' into switch 'L1' terminal.
5. Connect permanent Live wire into switch 'Com' terminal.
6. Connect back mains power supply.

LIVE
AC 230V

NEUTRAL

N N L↓ S L

Rocker Switch

COM

L1  L2

LIVE-IN

INSTALLATION - WIRING
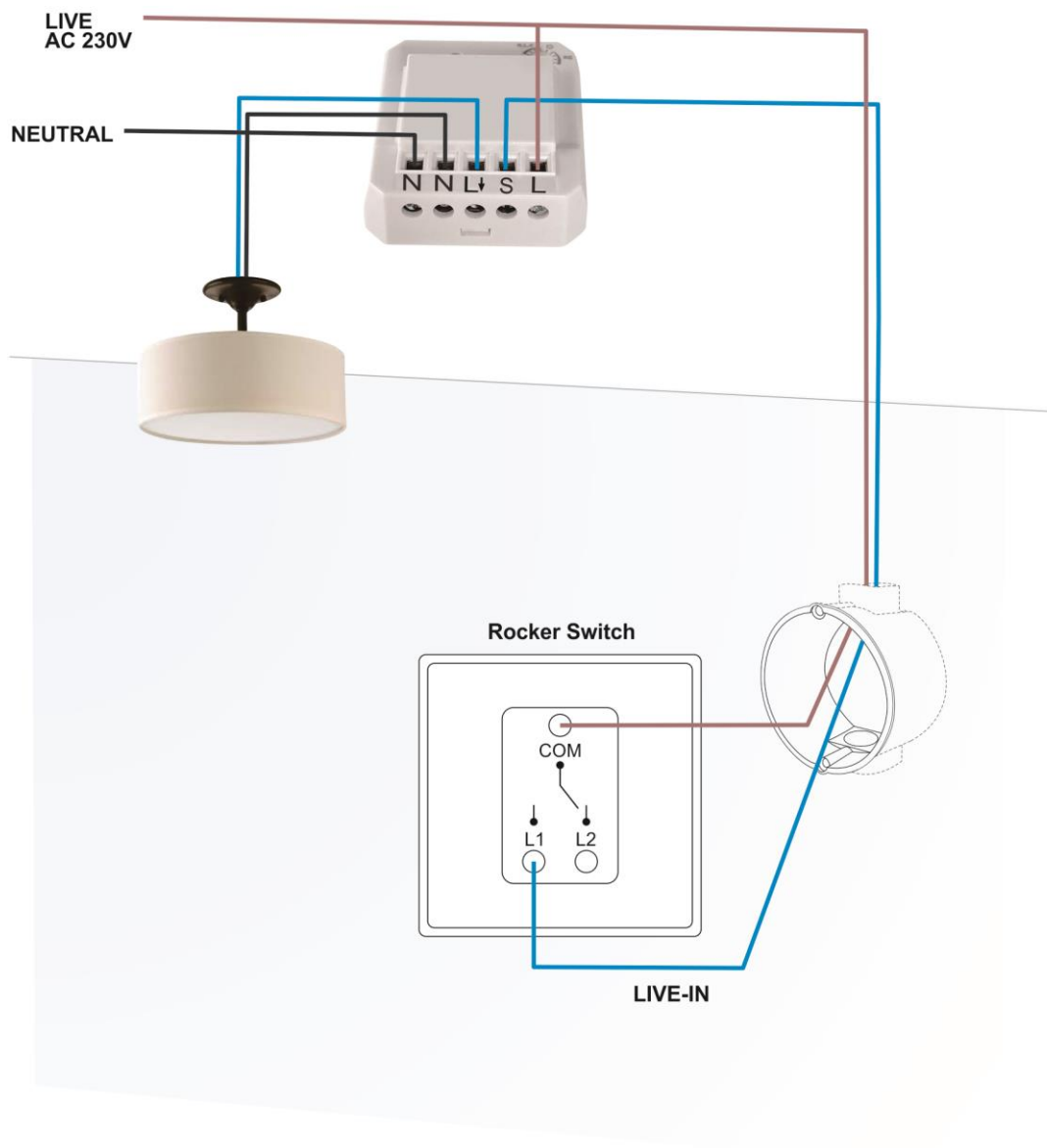
**Add mini module with two way operation**

### Two Way Operation

1. Switch 1 and 2 must be connected together with wires into 'L1 & L2' terminal.
2. Connect permanent Live wire into module terminal 'L'.
3. Connect Neutral wire into module terminal 'N'.
4. Connect wire from module terminal ' L↓ & N' to Load.
5. Connect permanent Live wire into switch 1 'Com' terminal.
6. Connect switch Live wire from module terminal 'S' into switch 2 'Com' terminal.
7. Connect wire from module terminal 'L↓& N' to Load
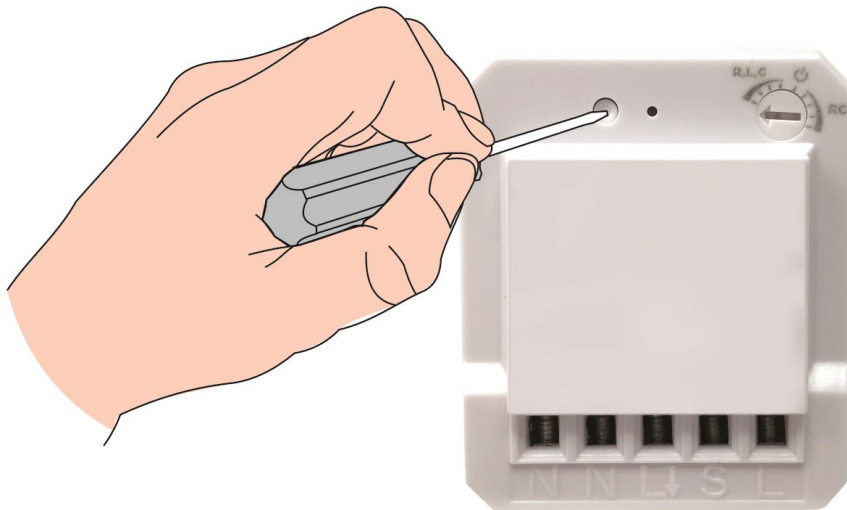8. Connect back mains power supply.



INSTALLATION - WIRING
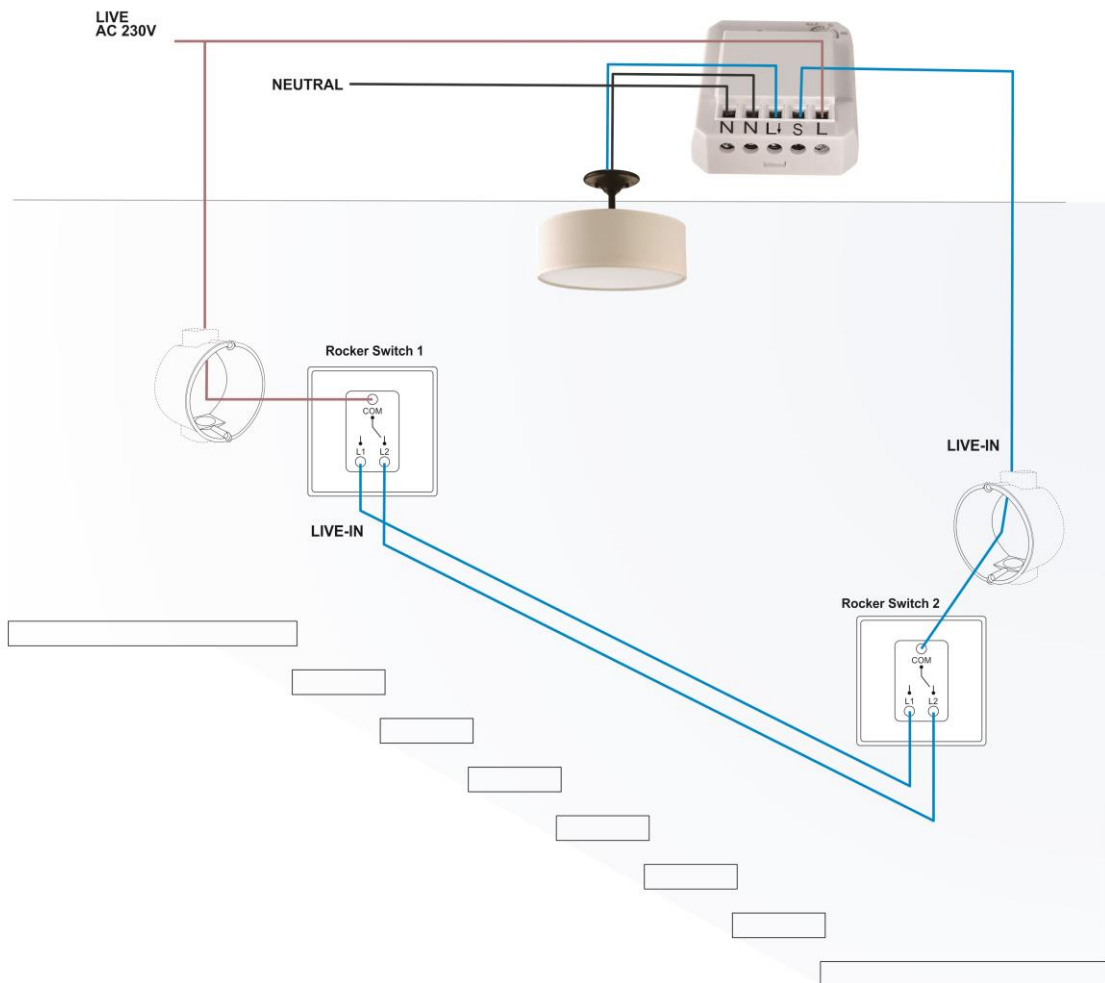
# 4. Pairing / Un-pairing Device

## PAIRING

Pairing using **LEARNING MODE**:

1.  Press **'Learn'** button once (LED on module will flash), this will enter learning mode.



2.  With a remote control press the **'ON'** button; LED on module will flash to confirm that the remote control is now paired.

**NOTE:** If no signal is received from a remote control within 12 seconds then the module will automatically exit learning mode without pairing the device.
To exit learning mode manually, simply press the **'Learn'** button again.

## UN-PAIRING

**Removing single Device:**

1. Press **'Learn'** once (LED on module will flash), this will enter learning mode.
2. With a remote control press the **'OFF'** button intended to be un-paired; LED on module will flash to confirm that the remote control is un-paired.

## CLEARING ALL MEMORY

Removing all memory stored in the module.

1. On the module hold down the **'Learn'** button for 6 seconds, LED on module will flash.
2. Release button then press again, this will remove all memory stored in the module.

# 5. Non-Dimmable / Trailing & Leading Edge Setup

Initial factory pre-set is at 'Leading Edge' Position

## NON-DIMMABLE LOAD

On-Off Function for non dimmable load.
Benefit to change from dimmable to non dimmable load without changing the module and operates normally for On-Off function.
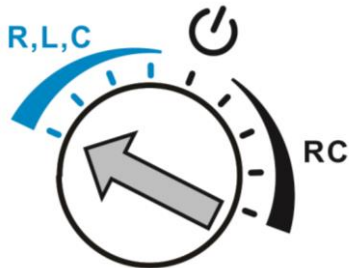
- Adjust rotary switch to ⏻ position, LED on module will quick flash to confirm and connected load will light up at full brightness.
- This confirms the mini wall module is properly setup under On-Off Function.

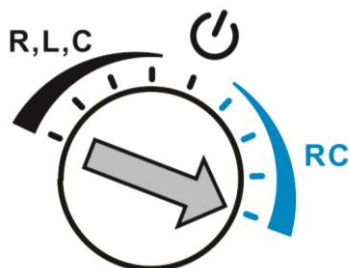## TRAILING EDGE / LEADING EDGE / MINIMUM BRIGHTNESS LEVEL

Adjust the rotary switch on the top right-hand corner to select trailing or leading edge by trimmer resistor.

### Leading Edge



- Adjust rotary switch counterclockwise to the very end of R,L,C position, LED on module will blink once to confirm the mini wall module is properly setup under leading edge.
- Slowly turn clockwise to adjust the minimum brightness level. If load flickers or turns OFF during operation, adjust counterclockwise one level up until the load lights up and do not flicker. Please adjust to the most suitable dim level that you desire.
- During ON/OFF operation LED on module will flash once.

### Trailing Edge



- Adjust rotary switch clockwise to the very end of RC position, LED on module will blink once to confirm the mini wall module is properly setup under Trailing Edge.
- Slowly turn counterclockwise to adjust the minimum brightness level. If load flickers or turns OFF during operation, adjust clockwise one level up until the load lights up do not flicker. Please adjust to the most suitable dim level that you desire.
- During ON/OFF operation LED on module will flash twice.

NON-DIMMABLE / TRAILING & LEADING EDEGE SETUP

# 6. Operation

Mini module is compatible to "Self Learning" system and M series remote control. Please refer to the relevant user guide for detailed operation.

**Operation via Rocker Switch:**
Turn the load ON:
Toggle switch once to turn ON load.

Turn the load OFF:
Toggle switch once again to turn OFF load.

Dimming the load:
In each operation, first time dimming, load will dim up and stops at brightest level. 2$^{nd}$ time dimming, load will dim down and stops at the lowest level.

1.  Toggle switch once to turn ON load
2.  Quickly toggle switch twice to start dimming.
3.  At the desired brightness level quickly toggle switch twice to stop.
※ During dimming process when the load level reaches to the lowest or brightest, to continue dimming quickly toggle switch twice then at the desired brightness level quickly toggle switch twice to stop.

Operation example using in conjunction with a remote control and rocker switch. If load is switched ON from the rocker switch then switch OFF via the remote control.
The next time turning ON the load can either be:
(i)    on the remote press the ON button
       OR
(ii)   on rocker switch toggle switch **<u>once</u>**.

OPERATION

**Rocker Switch Two way operation:**

Turn the load ON:

Toggle switch once to turn ON load.

Turn the load OFF:

Toggle switch once again to turn OFF load.

Operation example:

Switch 1 is located downstairs & Switch 2 is located upstairs.

While going up the stairs, toggle "Switch 1" once to turn ON the load, once you reach upstairs toggle "Switch 2" once to turn OFF the load.

OPERATION

Issue Date: 03/08/2022

# 7. Specifications

Input Rating:          230V~50Hz
Output Rating:

| Supported Load | Wattage |
|---|---|
| "Trailing edge" for resistive loads (R)<br>• Conventional incandescent and halogen light source | 20-250W / 230V~ |
| "Trailing edge" for resistive-capacitive loads (RC)<br>• Electronic transformers<br>• Dimmable LED and energy saving lamps. | 20-250W / 12V~<br>3-120W / 230V~ |
| "Leading edge" for resistive-inductive loads (RL)<br>• Inductive transformers | 40-250W / 12V~ |

Radio Frequency:          433.92MHz
Power consumption:        <1W
Environment Temperature:  0-40 $^{o}$C
Range:                    up to 50 m indoors (Depends on building materials)
In accordance with:       Low Voltage Directive 2014/35/EU
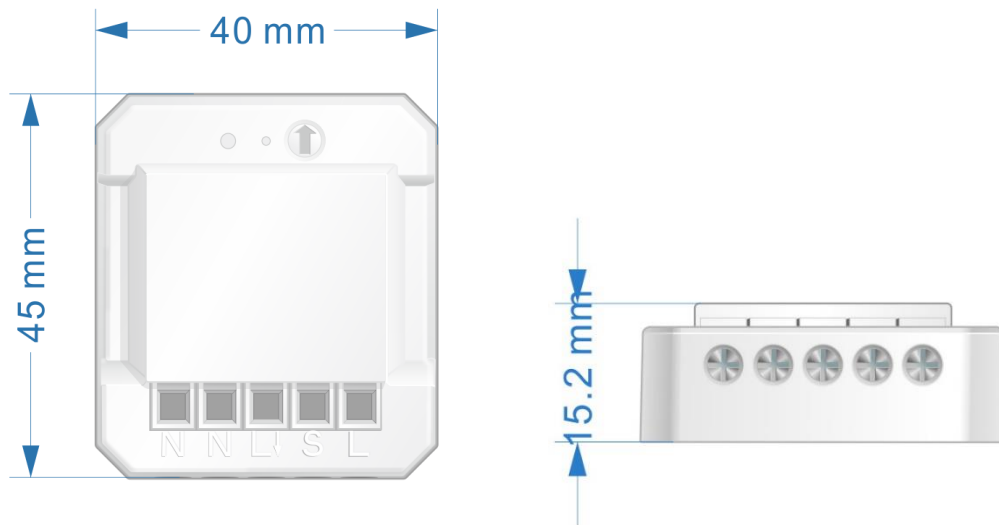                          RED Directive 2014/53/EU
CE Certification:         The CE marked affixed to this product confirms Its complaisance with the European Directives Which apply to the product and in particular its compliance with the harmonizes standards and specifications.

CE ⊘ RoHS

SPECIFICATION

Dimension (L x W x H)       45 x 40 x 15.2mm
Weight:                      20 g



## NOTE

- Please leave minimum of 1.5 meters in-between 2 or more modules.
- When inserting module into back box make sure excess wires do not cover module's back side. This may reduce the performance of radio transmission.
- During standby mode, LED on module will not illuminate.

SPECIFICATION