

## Dual Color LED Controller

Model No.: V2-L

2 Channel/Stepless dimming/Wireless remote control/Auto-transmitting/Synchronize/Push Dim/Multiple protection



### Feature

CE RoHS EMC LVD RED

- 4096 levels 0-100% dimming smoothly without any flash.
- Match with all RF 2.4G single zone or multiple zone dual color or single color remote control.
- One RF controller accept up to 10 remote control.
- Auto-transmitting function: Controller automatically transmit signal to another controller with 30m control distance.
- Synchronize on multiple number of controllers.
- Fade in and out effect selectable.
- 3 levels color temperature (WW, NW and CW) selectable by continuous power off and on operation.
- Connect with external push switch to achieve on/off and 0-100% dimming function.
- Overload / Short circuit protection, recover automatically.

### Technical Parameters

Input and Output	
Input voltage	12-36VDC
Input current	1.65A
Output voltage	2x(12-36)VDC
Output current	2CH, 8A/CH
Output power	2x(96-288)W
Output type	Constant voltage

Environment	
Operation temperature	T <sub>a</sub> : -30°C ~ +55°C
Case temperature [Max.]	T <sub>c</sub> : +85°C
IP rating	IP20

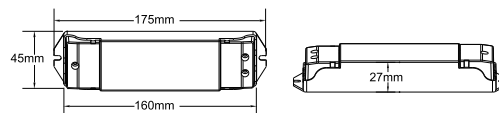
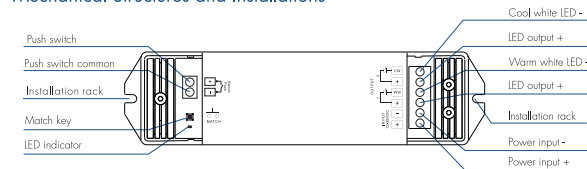
Warranty and Protection	
Warranty	5 years
Protection	Reverse Polarity Overload Short circuit

Dimming data	
Input signal	RF 2.4GHz + Push Dim
Control distance	30m(Barrier-free space)
Dimming gray scale	4096 (2 <sup>12</sup> ) levels
Dimming range	0-100%
Dimming curve	Linear
PWM Frequency	2KHz (default)

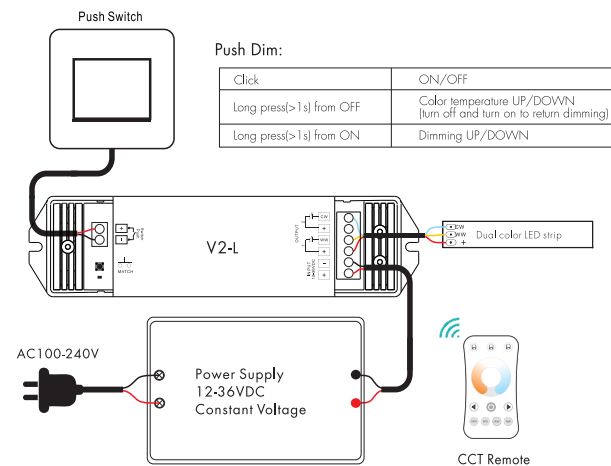
Safety and EMC	
EMC standard (EMC)	ETSI EN 301 489-1 V2.2.3 ETSI EN 301 489-17 V3.2.4
Safety standard[LVD]	EN 62368-1:2020+A11:2020
Radio Equipment[RED]	ETSI EN 300 328 V2.2.2
Certification	CE, EMC, LVD, RED

Weight	
Net weight	0.107kg
Gross weight	0.126kg

### Mechanical Structures and Installations



### Wiring Diagram



Note: Continuously switch off and on the power supply two times rapidly, It will change 3 levels color temperature (WW, NW and CW) in sequence.

## Match Remote Control (two match ways)

End user can choose the suitable match/delete ways. Two options are offered for selection:

### Use the controller's Match key

Match:

Short press match key, immediately press on/off key (single zone remote) or zone key (multiple zone remote) of the remote.

The LED indicator fast flash a few times means match is successful.

Delete:

Press and hold match key for 5s to delete all match,

The LED indicator fast flash a few times means all matched remotes were deleted.

### Use Power Restart

Match:

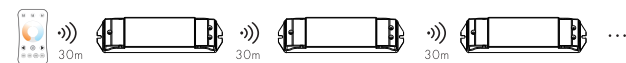
Switch off the power, then switch on power, repeat again. Immediately short press on/off key (single zone remote) or zone key (multiple zone remote) 3 times on the remote. The light blinks 3 times means match is successful.

Delete:

Switch off the power, then switch on power, repeat again. Immediately short press on/off key (single zone remote) or zone key (multiple zone remote) 5 times on the remote. The light blinks 5 times means all matched remotes were deleted.

## Application notes

### 1. All the receivers in the same zone.



RF remote

**Auto-transmitting:** One receiver can transmit the signals from the remote to another receiver within 30m, as long as there is a receiver within 30m, the remote control distance can be extended.

**Auto-synchronization:** Multiple receivers within 30m distance can work synchronously when they are controlled by the same remote.

Receiver placement may offer up to 30m communication distance. Metals and other metal materials will reduce the range. Strong signal sources such as WiFi routers and microwave ovens will affect the range.

We recommend for indoor applications that receiver placements should be no further apart than 1.5m.

### 2. Each receiver(one or more) in a different zone, like zone 1, 2, 3 or 4.



RF remote

## Push Dim with Synchronization

The provided Push-Dim interface allows for a simple dimming method using commercially available non-latching (momentary) wall switches.

If more than one controller are connected to the same push switch, do a long press for more than 10s, then the system is synchronized and all lights in the group dim up to 100%.

This means there is no need for any additional synchrony wire in larger installations.

We recommend the number of controllers connected to a push switch does not exceed 25 pieces, The maximum length of the wires from push to controller should be no more than 20 meters.

## Dual color control

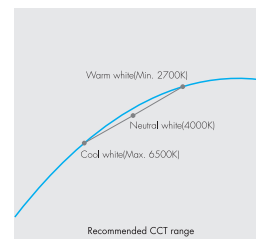
WW=Warm white LED

CW=Cool white LED

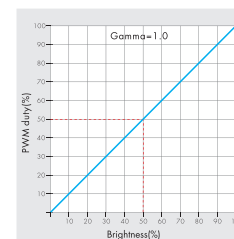
Each channel can supply up to 192W[@24V] and white balance can be controlled as such:

Color temperature	Cool white	Neutral white	Warm white
Power distribution	WW=0W,CW=192W	WW=96W,CW=96W	WW=192W,CW=0W

Linear dual color tuning



Dimming curve



## Fade in and Fade out Setting

Long press match key 5s, then short press match key 3 times,

The lighting effect will be set to the fade in and fade out in 3s, the indicator light of LED controller blinks 3 times.

Long press match key 10s, restore factory default parameter, the light on/off time restores to 0.5s.