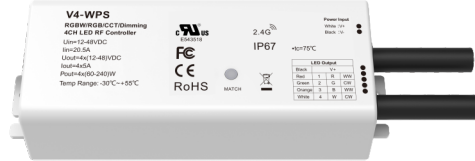


## V4-WPS

### Waterproof 4 Channel Constant Voltage LED RF Controller

#### Features

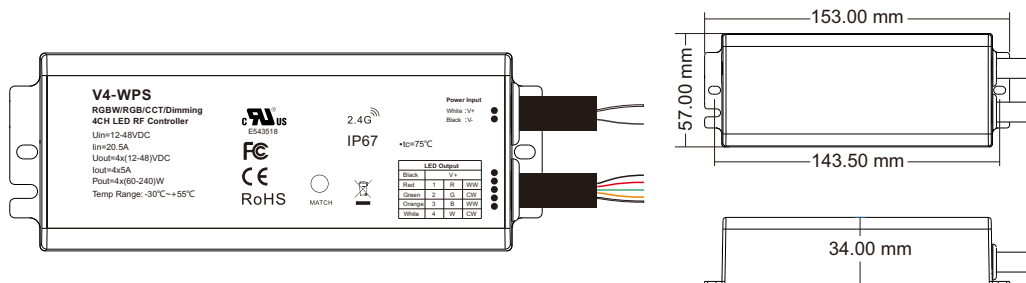
- Waterproof 4 channel constant voltage LED RF controller with IP67 rating, suitable for outdoor and damp environment.
- Match with RF 2.4G single zone or multiple zone single color, dual color and RGB/RGBW remote control.
- One RF controller accept up to 10 remote control.
- 4096 levels 0-100% dimming smoothly without any flash.
- When using with RGB/RGBW light, built in 10 dynamic mode, include jump or gradual change style.
- Auto-transmitting function:  
Controller automatically transmit signal to another controller with 30m control distance.
- PWM frequency 1KHz, 2KHz, 4KHz or 8KHz selectable.
- Synchronize on multiple number of controllers.
- Fade in and out effect selectable.



#### Technical Parameters

| Input and Output |                  | Dimming data       |                                | Safety and EMC         |   |
|------------------|------------------|--------------------|--------------------------------|------------------------|---|
| Input voltage    | 12-48VDC         | Input signal       | RF 2.4GHz                      | EMC standard           | EN IEC 55015/<br>EN IEC 61547<br>ETSI EN 301 489-1/-3 |
| Input current    | 20.5A            | Control distance   | 30m(Barrier-free space)        | Safety standard        | EN 61347-1/-2   |
| Output voltage   | 4 x (12-48)VDC   | Dimming gray scale | 4096 (2 <sup>12</sup> ) levels | Radio equipment        | ETSI EN 300 440                                       |
| Output current   | 4CH, 5A/CH       | Dimming range      | 0 - 100%                       | Certification          | CE RoHS FCC UL  |
| Output power     | 4x(60-240W)      | Dimming curve      | Logarithmic                    | Environment            |   |
| Output type      | Constant voltage | PWM frequency      | 1000Hz (default)               | Operation temperature  | Ta: -30 °C ~ +55 °C                                   |
| Warranty         | 5 years          | Package            |                                | Case temperature(Max.) | Tc: +75 °C  |
|                  |                  | Size               | L165 x W98 x H72mm             | IP rating              | IP67  |
|                  |                  | Gross weight       | 0.492kg                        |                        |   |

#### Mechanical Structures and Installations



#### 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 light blinks 3 times means match is successful.

Delete:  
Press and hold match key for 5s to delete all match,  
The light blinks 3 times means all matched remotes  
were deleted.

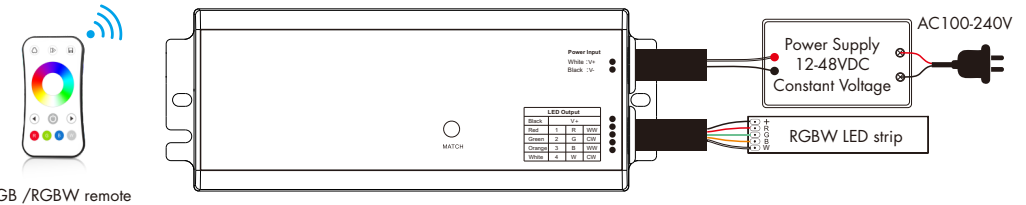
##### Use Power Restart

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 3 times means all matched remotes were deleted.

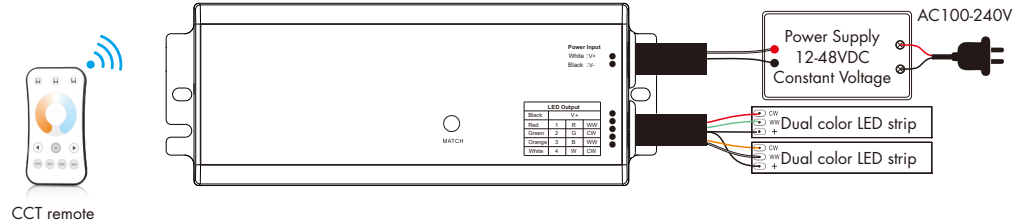
#### Wiring Diagram

##### V4-WPS for RGB/RGBW

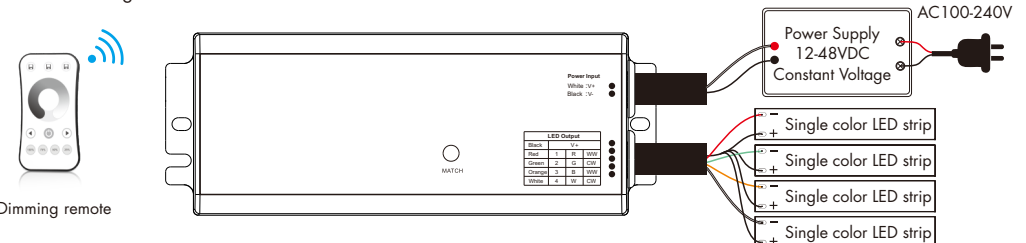


Note: If connect with RGB LED strip, please long press match key for 1.5s, the controller will become RGB type, the light blinks 10 times. (Long press match key for 10s will restore RGBW type)

##### V4-WPS for dual color



##### V4-WPS for single color



Note: The output power of a constant voltage power supply should be at least 1.2 times that of the output load (light strip), otherwise the full power output of the load can easily cause automatic flickering or shaking of the light.

PWM Frequency Setting

At the moment of power-up:  
Long press the match key for 2s, set the output PWM frequency to 1KHz.  
Long press the match Key for 5s, set the output PWM frequency to 2KHz.  
Long press the match Key for 10s, set the output PWM frequency to 4KHz.  
Long press the match Key for 15s, set the output PWM frequency to 8KHz.  
The factory default PWM frequency is 1KHz.  
Note: Higher PWM frequency, will cause lower output current, higher power noise, but more suitable for camera(No flickers for video).

PWM frequency and output current mapping:

| $\frac{U_{in}}{U_{out}}$ PWM | 1 KHz | 2KHz | 4KHz | 8KHz |
|------------------------------|-------|------|------|------|
| 12/24V                       | 5A    | 5A   | 4A   | 4A   |
| 36/48V                       | 5A    | 5A   | 4A   | 3A   |

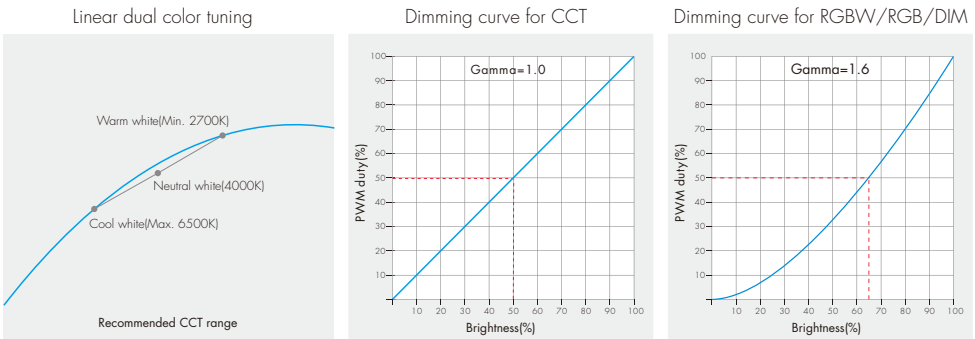
Fade In and Fade Out Setting

Long press match key 5s, then short press match key 3 times, the light on/off time will be set to 3s.  
Long press match key 10s, restore factory default parameter, the light blinks 5 times, the light on/off time restores to 0.5s.

Dual Color Control

CH1,CH3=Warm white LED CH2,CH4=Cool white LED  
Each channel can supply up to 120W(@24V) and white balance can be controlled as such:

| Color temperature  | Cool white                         | Neutral white                      | Warm white                         |
|--------------------|------------------------------------|------------------------------------|------------------------------------|
| Power distribution | CH1=0W,CH2=120W<br>CH3=0W,CH4=120W | CH1=60W,CH2=60W<br>CH3=60W,CH4=60W | CH1=120W,CH2=0W<br>CH3=120W,CH4=0W |



RGB/RGBW Dynamic Mode List

| No. | Name                      | No. | Name                  |
|-----|---------------------------|-----|-----------------------|
| 1   | RGB jump                  | 6   | RGB fade in and out   |
| 2   | RGB smooth                | 7   | Red fade in and out   |
| 3   | 6 color jump              | 8   | Green fade in and out |
| 4   | 6 color smooth            | 9   | Blue fade in and out  |
| 5   | Yellow cyan purple smooth | 10  | White fade in and out |

Installation Precautions

- 1. The products shall not be stacked, the distance should be  $\geq 20\text{cm}$ , so as not to affect lifespan of the products due to poor heat dissipation.
- 2. The product shall not be installed close to the switching power supply with an interval of  $\geq 20\text{cm}$  to avoid radiation interference of the switching power supply.
- 3. The installation height shall be  $\geq 1\text{m}$  from the floor to avoid shortening the remote control distance due to too weak reception signal.
- 4. The products are not allowed to be close to or covered by metal objects, with an interval of  $\geq 20\text{cm}$  to avoid signal attenuation and shorten the remote distance.
- 5. Avoid installation at the corner of the wall or the corner of the beam, with an interval of  $\geq 20\text{cm}$  to avoid signal interference.

Statement

**FCC Statement:**  
This device complies with Part 15 of the FCC Rules.operation is subject to the following two conditions:  
(1)this device may not cause harmful interference,and  
(2)this device must accept any interference received,including interference that may cause undesired operation.  
**IC Statement:**  
This Class B digital apparatus complies with Canadian ICES-003.  
(Cet appareil numérique de la Classe B conforme à la norme NMB-003 du Canada).