4 Channel Constant Voltage LED Waterproof RF Controller

Model No.: V4-WP

IP67 waterproof/4 Channels/Step-less dimming/Wireless remote control/Auto-transmitting/Synchronize

FC C CE RoHS emc LVD RED

Features

- Waterproof 4 channel constant voltage LED RF controller with IP67 rating, suitable for outdoor and damp environment.
- Match with 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.
- Synchronize on multiple number of controllers.

Technical Parameters

Input and Output

Input voltage	12-36VDC
Input current	20.5A
Output voltage	4 x (12-36)VDC
Output current	4CH,5A/CH
Output power	4 x (60-180)W
Output type	Constant voltage

Dimming data

Input signal	RF 2.4GHz
Control distance	30m(Barrier-free space)
Dimming gray scale	4096 (2^{12}) levels
Dimming range	0-100%
Dimming curve	Logarithmic
PWM Frequency	500Hz (default)

Safety and EMC

EMC standard (EMC)	EN301 489,EN 62479
Safety standard(LVD)	EN60950
Radio Equipment(RED)	EN300 328
Certification	CE,EMC,LVD,RED

Environment

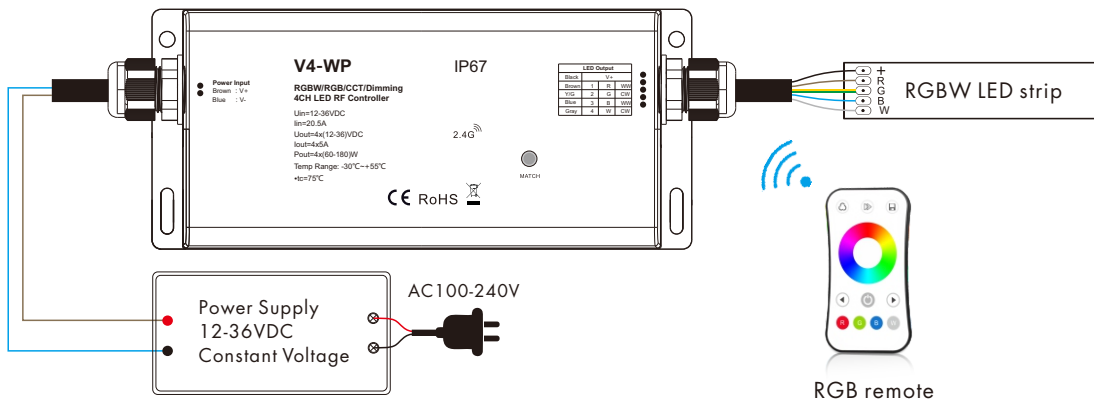| Operation temperature	Ta: -30 ℃ ~ +55 ℃
Case temperature (Max.)	Tc: +85℃
IP rating	IP67

Warranty and Protection

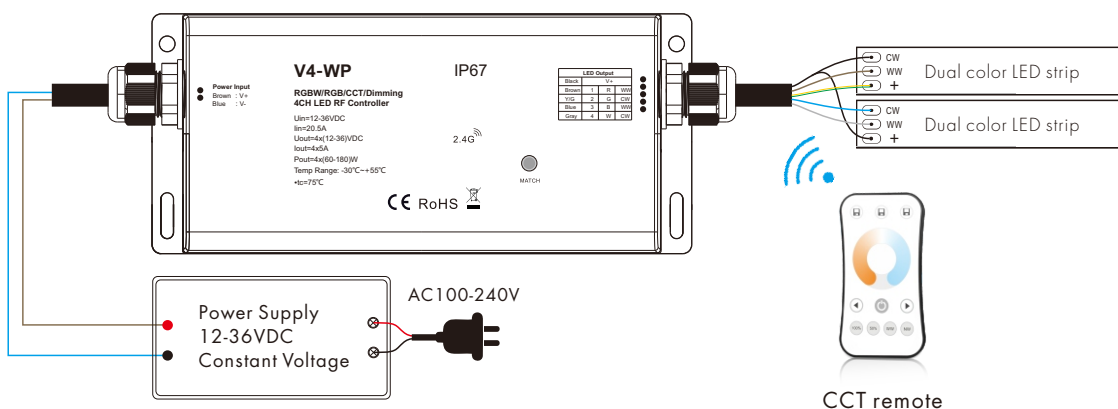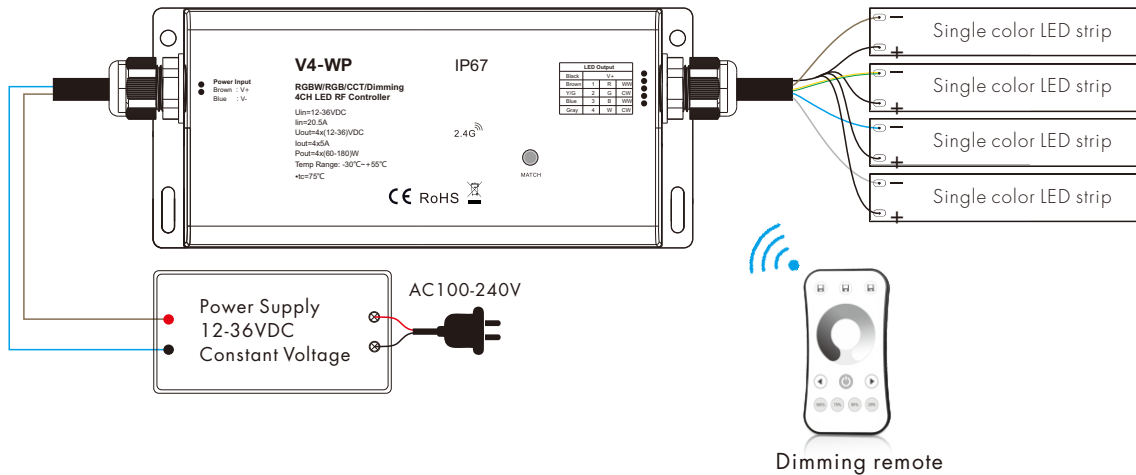| Warranty	5 years
Protection	Reverse Polarity Over-heat Over-load Short circuit

Mechanical Structures and Installations

V4-WP   IP67

RGBW/RGB/CCT/Dimming
4CH LED RF Controller

Uin=12-36VDC
Iin=20.5A
Uout=4x(12-36)VDC
Iout=4x5A
Pout=4x(60-180)W
Temp Range: -30℃~+55℃
•tc=75℃

2.4G

MATCH

CE RoHS

Power Input
Brown : V+
Blue : V-

LED Output			
Black		V+	
Brown	1	R	WW
Y/G	2	G	CW
Blue	3	B	WW
Gray	4	W	CW

176.0 mm

78.0 mm

38.0 mm
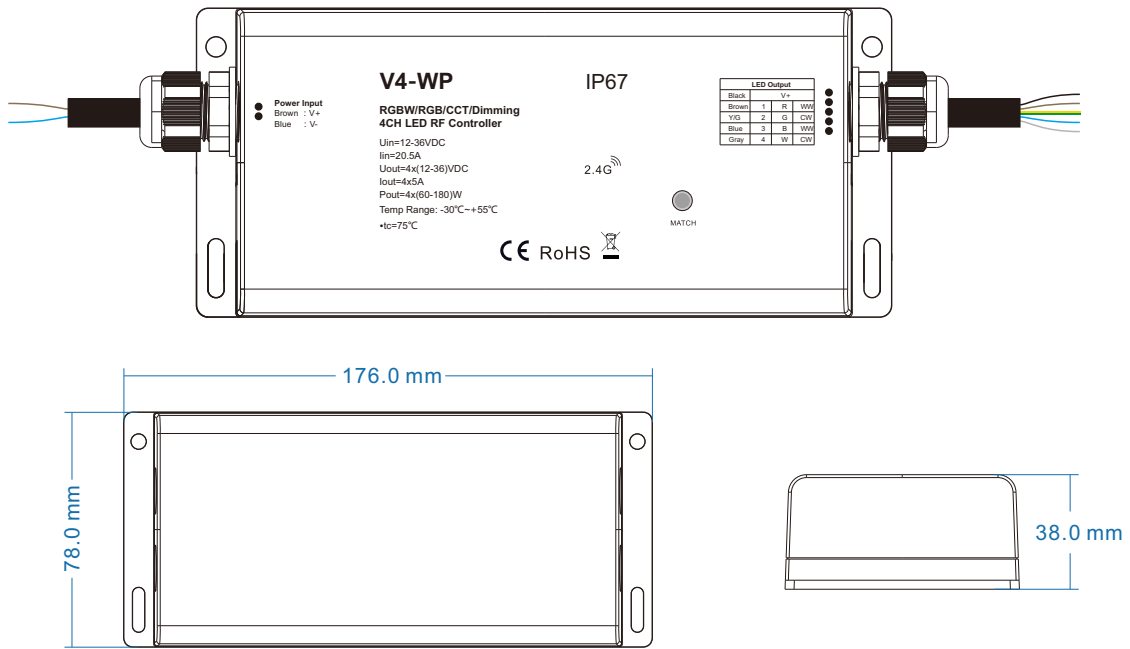
Wiring Diagram

● V4-WP for RGB/RGBW

RGBW LED strip

+
R
G
B
W

Power Supply
12-36VDC
Constant Voltage

AC100-240V

RGB remote

Note：If connect with RGB LED strip, please long press match key for 15s, the controller will become RGB type.

● V4-WP for dual color

CW
WW
+
Dual color LED strip

CW
WW
+
Dual color LED strip

Power Supply
12-36VDC
Constant Voltage

AC100-240V

CCT remote

● V4-WP for single color

Dimming remote

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	Use Power Restart
Match: Short press match key, immediately press on/off key (single zone remote) or zone key (multiple zone remote) of the remote.	**Match:** Switch off the power, then switch on power 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: Press and hold match key for 5s to delete all match, The light blinks 5 times means all matched remotes were deleted.	**Delete:** Switch off the power, then switch on power 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.

RGB/RGBW dynamic mode list

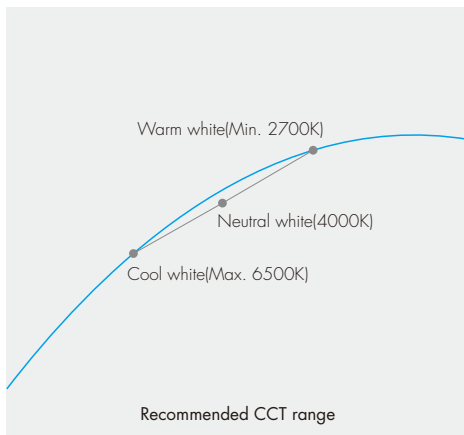| No.	Name	No.	Name
1	RGB jump	6	RGB fade in and out
2	RGB smooth	7	Red fade in and out
3	6 color jump	8	Green fade in and out
4	6 color smooth	9	Blue fade in and out
5	Yellow cyan purple smooth	10	White fade in and out

Dual color control

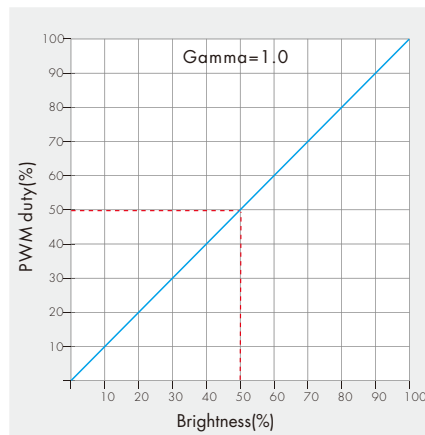CH1,CH3=Warm white LED
CH2,CH4=Cool white LED
Each channel can supply up to 120W(@24V) and white balance can be controlled as such:

Color temperature	Cool white	Neutral white	Warm white
Power distribution	CH1=0W,CH2=120W CH3=0W,CH4=120W	CH1=60W,CH2=60W CH3=60W,CH4=60W	CH1=120W,CH2=0W CH3=120W,CH4=0W

Linear dual color tuning

Warm white(Min. 2700K)
Neutral white(4000K)
Cool white(Max. 6500K)
Recommended CCT range

Dimming curve for CCT

Gamma=1.0
PWM duty(%)
Brightness(%)

Dimming curve for RGBW/RGB/DIM

Gamma=1.6
PWM duty(%)
Brightness(%)
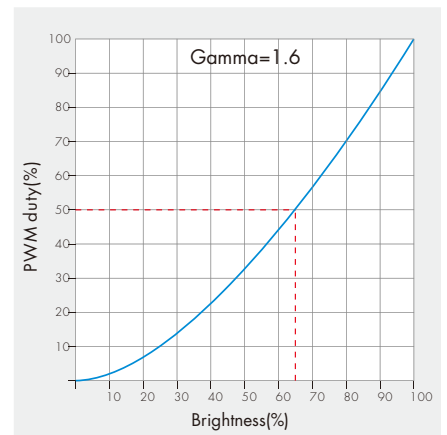
Malfunctions analysis & troubleshooting

Malfunctions	Causes	Troubleshooting
No light	1. No power. 2. Wrong connection or insecure.	1. Check the power. 2. Check the connection.
Wrong color	1. Wrong connection of R/G/B/W wires.	1. Reconnect R/G/B/W wires.
Uneven intensity between front and rear,with voltage drop	1. Output cable is too long. 2. Wire diameter is too small. 3. Overload beyond power supply capability. 4. Overload beyond controller capability.	1. Reduce cable or loop supply. 2. Change wider wire. 3. Replace higher power supply. 4. Add power repeater.
No response from the remote	1. The battery has no power. 2. Beyond controllable distance. 3. The controller did not match the remote.	1. Replace battery. 2. Reduce remote distance. 3. Re-match the remote.