User Guide

Din rail Mounted
4 Channel RF Controller and Power Repeater

The LED controller V4-D / C4-D is a constant voltage or constant current RF receiver with numeric digital display, 4 channel output, which can be compatible with a variety of RF remotes to switch and dim RGBW, RGB, dual color or single color LEDs. Smooth dimming from 0.1% to 100% without any flickering can be very comfortable for human's eyes. Built-in 10 dynamic mode can create fancy lighting effects.
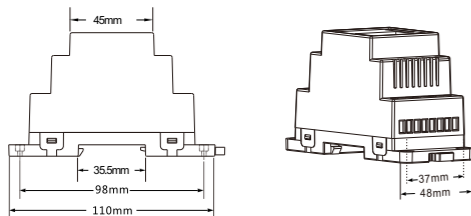
Feature

● Din rail mounted constant voltage or constant current controller, four channel output.
● Digital numeric display and easy key operation.
● RF controller can work under stand-alone mode or RF mode.
● Under stand-alone mode(no need remote), can set as 1ch dimmer, 4ch dimmer, dual color controller or RGB/RGBW controller.
● Under RF mode, full compatibility with a variety of single color dimming, dual color and RGB/RGBW remote.
● Smooth dimming and switch without any flickering.
● When control RGB/RGBW lamp, built in 10 mode, include jump or gradual change style, adjustable speed.
● Adopt 2.4GHz wireless technology, remote distance up to 30m.
● One receiver can accept up to 10 remote control.
● Can be WiFi controlled by APP installed on IOS or Android mobile devices while working with WiFi-Relay controller.
● High or low PWM frequency optional.
● Log or linear dimming curve optional.
● Work with power repeater to expand output unlimitedly.
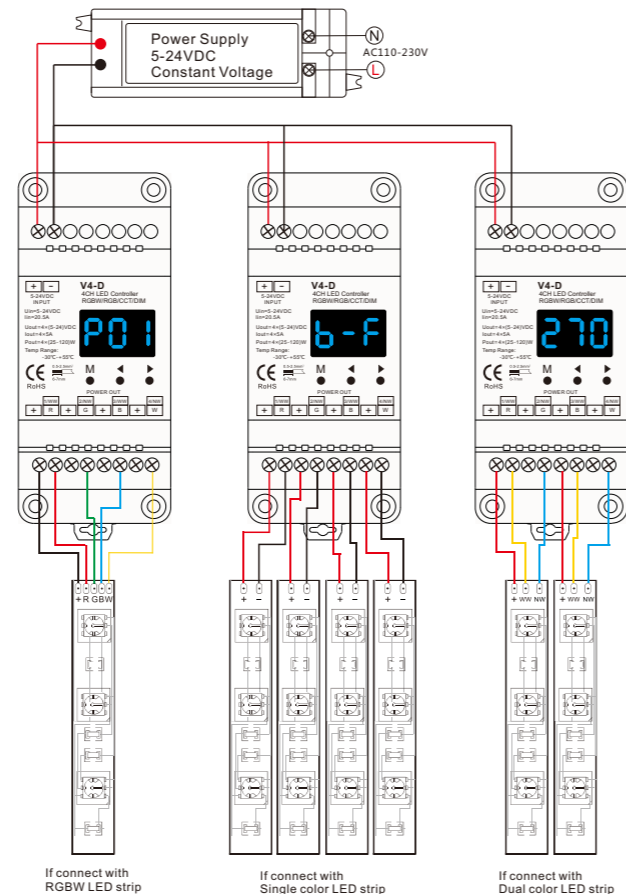● Din rail or screw mounted optional.

Technical parameter

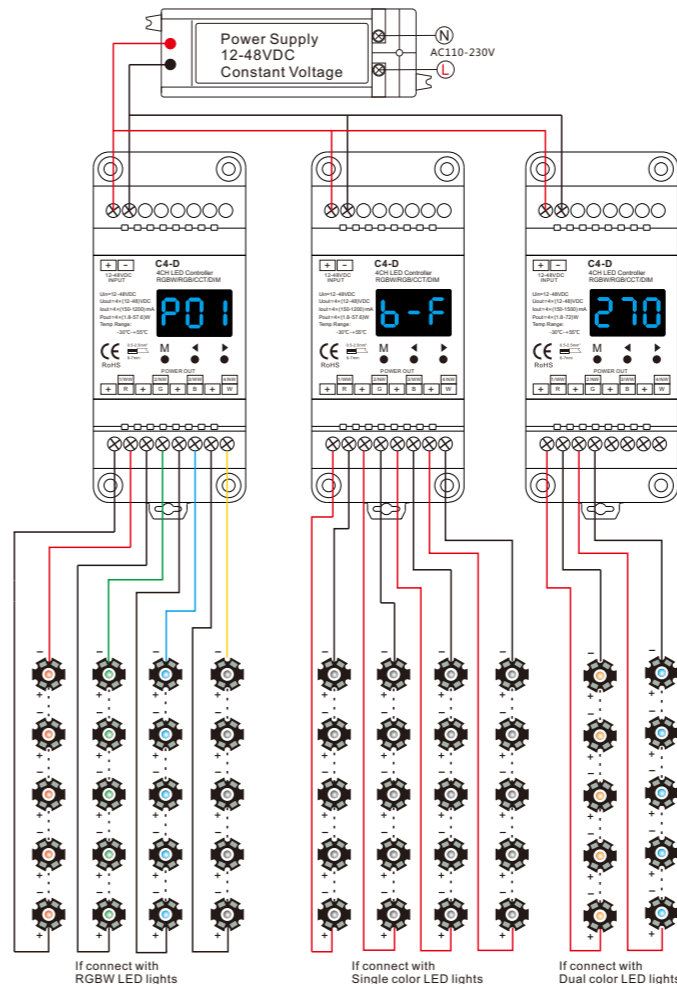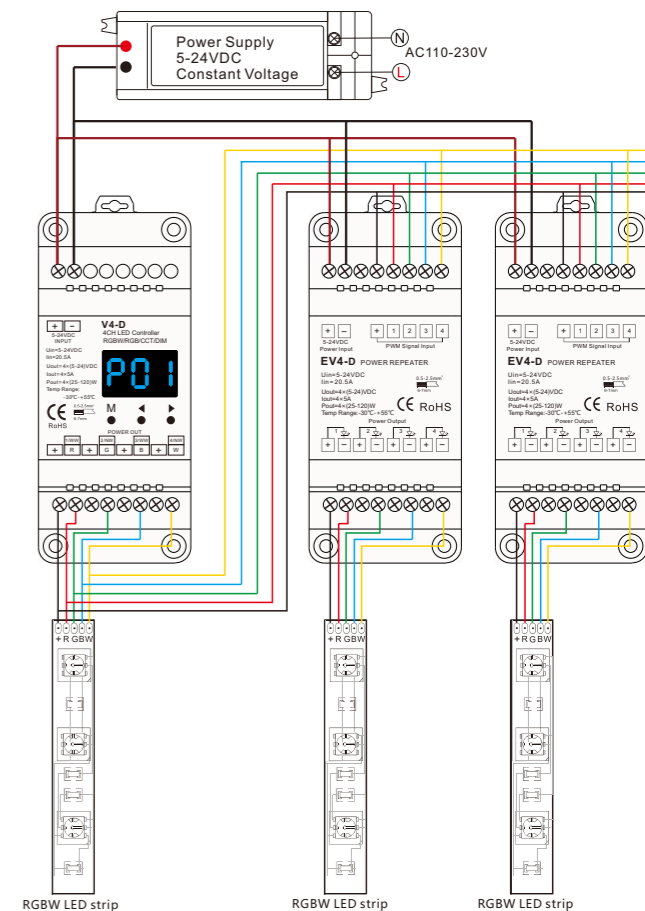| Model	Name	Input voltage	Output current	Output power	Output type
V4-D	4CH CV RF controller	5-24VDC	4CH,5A/CH	4 x (25-120)W	Constant voltage
C4-D	4CH CC RF controller	12-48VDC	4CH,150-1200mA (customized)/CH	4 x (1.8-57.6)W	Constant current
EV4-D	4CH CV power repeater	5-24VDC	4CH,5A/CH	4 x (25-120)W	Constant voltage

Dimension

45mm
35.5mm
98mm
110mm
37mm
48mm

Wiring diagram

V4-D connect with RGBW, single color or dual color LED strip

If connect with RGBW LED strip

If connect with Single color LED strip

If connect with Dual color LED strip

C4-D connect with RGBW, single color or dual color LED lights

If connect with RGBW LED lights

If connect with Single color LED lights

If connect with Dual color LED lights

One V4-D parallel connect with multiple EV4-D

RGBW LED strip
RGBW LED strip
RGBW LED strip

Power supply select guide

For V4-D / EV4-D, LED power supply voltage and power select :
● 5V lamp, Input 5V power supply, each channel can load 0~25W,
● 12V lamp, Input 12V power supply, each channel can load 0~60W,
● 24V lamp, Input 24V power supply, each channel can load 0~120W,
　The power supply power must larger than load power 20%.

For C4-D, LED power supply voltage select:
● Input 48V power supply, each channel can series connect 1~13pcs LED,
● Input 36V power supply, each channel can series connect 1~10pcs LED,
● Input 24V power supply, each channel can series connect 1~6pcs LED,
● Input 12V power supply, each channel can series connect 1~3pcs LED.

Operation for V4-D / C4-D

Light type and other parameter setting

● Long press M and ◄ key for 2s, prepare for setup system parameter: light type,
　output PWM freqence, output brightness curve, automatic blank screen.
　short press M key to switch four item.
● Light type: short press ◄ or ► key to switch five kinds type: 1CH dimmer("Ch1"), dual color
　temperature("Ch2") , RGB("Ch3"), RGBW("Ch4") and 4CH dimmer("CH4").
● Output PWM freqence: short press ◄ or ► key to switch 500Hz("F-L") or 2KHz("F-H").
● Output brightness curve: short press ◄ or ► key to switch linear curve("C-L") or logarithmic curve("C-E").
● Automatic blank screen: short press ◄ or ► key to switch enable ("bon") or disable("boF")
　automatic blank screen.
● Long press M key for 2s or timeout 10s, quit system parameter setting.

1CH Dimmer

● Four channel output connect four single color LED strip, realize synchronous dimming.
● Short press M key to switch coarse dimming and fine dimming.
● Coarse dimming: short press ◄ or ► key to adjust 10 levels brightness(b-1, b-9, b-F).
● Fine dimming: short press ◄ or ► key to adjust 256 levels brightness(b01~bFF).

Dual color temperature controller

● Four channel output connect two groups dual color LED strip(WW and NW).
● Short press M key to switch color temperature or brightness adjustment.
● Press ◄ or ► key to setup value of each item.
● Color temperature: 2700-6500K, display 270~650, short press 11 levels, long press 256 levels.
● Brightness: 1-10 level brightness(b-1, b-9, b-F).

RGB/RGBW Controller

● Four channel output connect RGB/RGBW LED strip.
● Short press M key, switch static adjustable mode(P-H)
　and 10 change mode(P01~P10).
● When run static adjustable mode,
　can adjust three/four channel brightness respectively.
　Short press M key switch three/four channel dimming
　(100~1FF, 200~2FF, 300~3FF, 400~4FF),
　press ◄ or ► key adjust each channel brightness.
● When run 10 change mode, can adjust each mode speed and brightness,
　W brightness(Only RGBW).
　Short press M key to switch speed and brightness item.
　Mode speed: 1-10 level speed(S-1, S-9, S-F).
　Mode brightness: 1-10 level brightness(b-1, b-9, b-F).
　W channel brightness: 0-255 level brightness(400~4FF).

Mode
(P01~P10)

Speed
(8 level)

Brightness
(10 level,100%)

Dynamic mode list

No.	Name	No.	Name
P01	RGB jump	P06	RGB fade in and out
P02	RGB smooth	P07	Red fade in and out
P03	6 color jump	P08	Green fade in and out
P04	6 color smooth	P09	Blue fade in and out
P05	Yellow cyan purple smooth	P10	White fade in and out

4CH Dimmer

● Four channel output connect four single color LED strip, realize individual dimming.
● Short press M key, switch static adjustable mode(P-H) and four dynamic mode(P-1~P-4).
● When run static adjustable mode, can adjust four channel brightness respectively.
　Short press M key switch four channel dimming(100~1FF, 200~2FF, 300~3FF, 400~4FF),
　press ◄ or ► key adjust each channel brightness.
● When run four dynamic mode, can adjust each mode speed and brightness.
　Short press M key to switch speed and brightness item.
　Mode speed: 1-10 level speed(S-1, S-9, S-F).
　Mode brightness: 1-10 level brightness(b-1, b-9, b-F).

4CH dimmer change mode list

No.	Name
P-1	4ch light on and off in sequence
P-2	4ch single light on in sequence
P-3	4ch light fadein and fadeout synchronously
P-4	4ch light fadein and fadeout in sequence

Turn on/off light

● Long press M key 2s, turn off light, display OFF.
● When in OFF state, short press M key, turn on light.

Match RF Remote

● Match: Long press M and ► key for 2s, display RLS,
　　　　within 5s, press any key of the remote, display RLO, match is done,
　　　　then use remote to change mode number, adjust speed and brightness.
● Delete: Long press M and ► key for 5s, until display RLE, delete all matched remote.

Restore factory default parameter

● Long press ◄ and ► key for 2s, restore factory default parameter, display"RES".
● Factory default parameter: without matched remote, RGBW type, low PWM freqence output,
　logarithmic brightness curve, RGB mode number is 1, disable automatic blank screen.

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.

Safety information

1. The product shall be installed and serviced by a qualified person.
2. The product is non-waterproof. Please avoid the sun and rain.
3. Good heat dissipation will prolong the working life of the controller. Please ensure good ventilation.
4. Please check if the output voltage of any power supplies used comply with the working voltage of the product.
5. Ensure all wire connections and polarities are correct and secure before applying power to avoid any damages to the LED lights.
6. If a fault occurs please return the product to your supplier. Do not attempt to fix this product by yourself.