LEDCO®

RGBW/RGB/CCT/Dimming
4CH LED Controller

Uin: 12-24VDC
Uout: 4×(12-24)VDC
Iout: Max 6A/Channel
Total output Max: 15A
Temp Range: -30℃~+55℃
2.4G wireless control

RoHS

3 YEARS WARRANTY

TECHNICAL SPECIFICATIONS

FEATURES

- DC power socket input and 4 channel constant voltage output.
- Match with RF 2.4G single or multiple zone single color, dual color, RGB and RGBW remote control.
- One RF controller accept up to 10 remote control.
- 4096 levels, 0-100% smooth dimming without flashing.
- Built in RGB and RGBW dynamic modes, including jump or gradual changes.
- Auto-transmitting function: controller automatically transmit signal to another controller up to 30m distance.
- Synchronize on multiple number of controllers.
- 3 seconds selectable on/off light fade time.

INPUT AND OUTPUT

- Input voltage   : 12-24VDC
- Input current   : 15.5A
- Output voltage   : 4 x (12-24)VDC
- Output current   : 4 ch 4A (6A max)
- Output power   : 4 x (48-96)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
- Dimmimg range   : 0-100%
- Dimming curve   : Logarithmic
- PWM frequency   : 1000Hz (default)

ENVIRONMENT

- Operation temperature   : -30℃ ~ +55℃
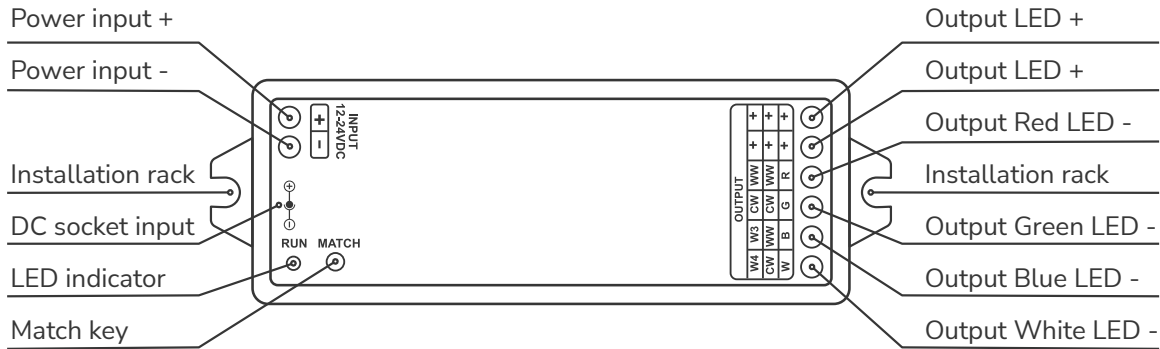- Case temperature (Max.)   : +85℃

SAFETY AND EMC

- EMC standard :
  ETSI EN 301 489-1 V2.2.3, ETSI EN 301 489-17 V3.2.4
- LVD standard :
  EN 62368-1 : 2020+A11:2020
- Certification   : CE, EMC, LVD, RED
- Warranty   : 3 years
- Protection :
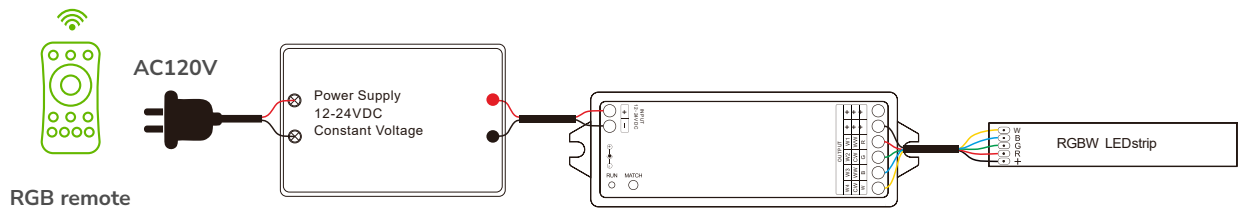 Reverse polarity, Over-heat and short circuit

DIMENSIONS

- 114mm x 38mm x 20mm (L x W x H)
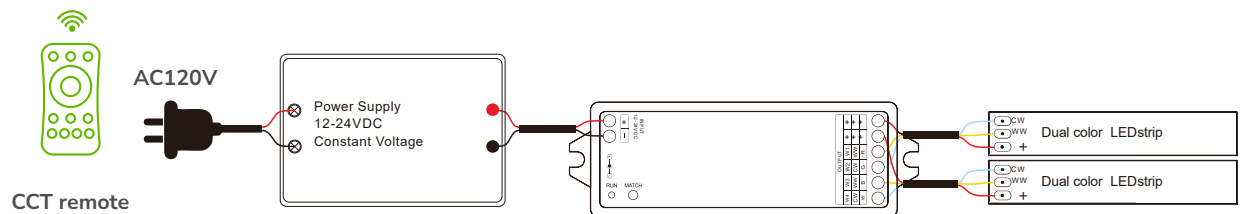
MECHANICAL STRUCTURES AND INSTALLATIONS

Power input +

Power input -

Installation rack

DC socket input

LED indicator

Match key

Output LED +

Output LED +

Output Red LED -

Installation rack

Output Green LED -

Output Blue LED -

Output White LED -

WIRING DIAGRAM

• RGB and RGBW

RGB remote

AC120V

Power Supply
12-24VDC
Constant Voltage

RGBW LEDstrip

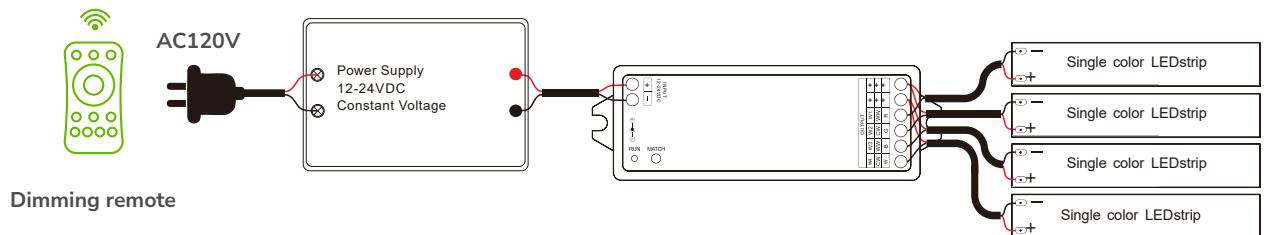**Note:** If connected with a RGB LED strip, press the match key for 15s to switch the controller to RGB mode.

• CCT (dual colors)

CCT remote

AC120V

Power Supply
12-24VDC
Constant Voltage

Dual color LEDstrip

Dual color LEDstrip

• Single color

Dimming remote

AC120V

Power Supply
12-24VDC
Constant Voltage

Single color LEDstrip

Single color LEDstrip

Single color LEDstrip

Single color LEDstrip

SYNCHRONIZATION
MATCHING THE REMOTE CONTROL TO THE CONTROLLER

You can use one of these two ways for the matching process:

A) Using the controller's match key

Match:
- On the controller, short press the match key.
- On the remote, immediately press the on/off key or the desired zone key.
- The LED indicator flashes a few times meaning the match is successful.

Delete:
- On the controller, press and hold the match key for 5 seconds to delete all matches.
- The LED indicator flashes a few times meaning all matched remotes were deleted.

B) Using Power Restart

Match:
- Switch off the power of the controller, then switch it back on.
- Repeat the last step one more time.
- On the remote, immediately press the on/off key or the desired zone key 3 times.
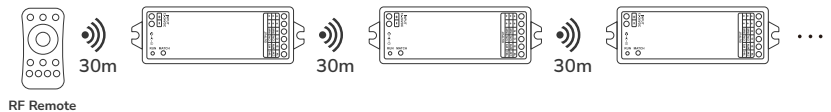- The light will blink 3 times if the match is successful.

Delete:
- Switch off the power of the controller, then switch it back on.
- Repeat the last step one more time.
- On the remote, immediately press the on/off key or the desired zone key 5 times.
- The light will blink 5 times meaning all matched remotes were deleted.

APPLICATION NOTES

1. All the receivers in the same zone.

Auto-transmitting: One receiver can transmit the signals from the remote to another receiver within 30m and so on.

Auto-synchronization: Multiple receivers within 30m distance can work synchronously when they are controlled by the same remote, under the same dynamic mode and with the same speed.

Receiver placement may offer up to a 30m communication distance. Metals and other magnetic materials will reduce the range. Strong signal sources such as WiFi routers and microwave ovens will also affect the range. We recommend a maximum of 15m spacing between receivers indoors.

2. Each receiver in a different zone.

You can use as many individual zones as the remote supports.

You can use multiple receivers on the same zone as long as you respect the 30m rule, explained above in point number 1.

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

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 96W (@24V) and white balance can be controlled as such:

Color temperature	Cool white	Neutral White	Warm white
Power distribution	CH1=0W, CH2=96W	CH1=48W, CH2=48W	CH1=96W, CH2=0W
	CH3=0W, CH4=96W	CH3=48W, CH4=48W	CH3=96W, CH4=0W