SR-2108C-4CH-CV
480W DMX512 RDM,
4 KANAL LED DIMMER CV

Eigenschaften / Features

DMX decoder & master mode

RDM function

For use with a power repeater for unlimited expansion of the output power

Digital display for direct data display, simple setting and display of the DMX address.

Total of 4 PWM output channels, common anode. DMX channel number adjustable from 1CH~4CH

PWM output resolution ratio 8bit, 16bit adjustable.

Output PWM frequency adjustable from 500HZ ~ 35K HZ.

Gamma value of output dimming curve adjustable from 0.1 ~ 9.9.

Decoding mode adjustable.

IP20

5 Jahre Garantie

DMX-Decoder & Master-Modus

RDM-Funktion

Zur Verwendung mit einem Power Repeater zur unbegrenzten Erweiterung der Ausgangsleistung

Digitales Display zur direkten Anzeige der Daten, einfache Einstellung und Anzeige der DMX-Adresse.

Insgesamt 4 PWM-Ausgangskanäle, gemeinsame Anode. DMX-Kanalanzahl von 1CH~4CH einstellbar

PWM-Ausgangsauflösungsverhältnis 8bit, 16bit einstellbar.

Ausgangs-PWM-Frequenz von 500HZ ~ 35K HZ einstellbar.

Gammawert der Ausgangsdimmkurve von 0,1 ~ 9,9 einstellbar.

Dekodiermodus einstellbar.

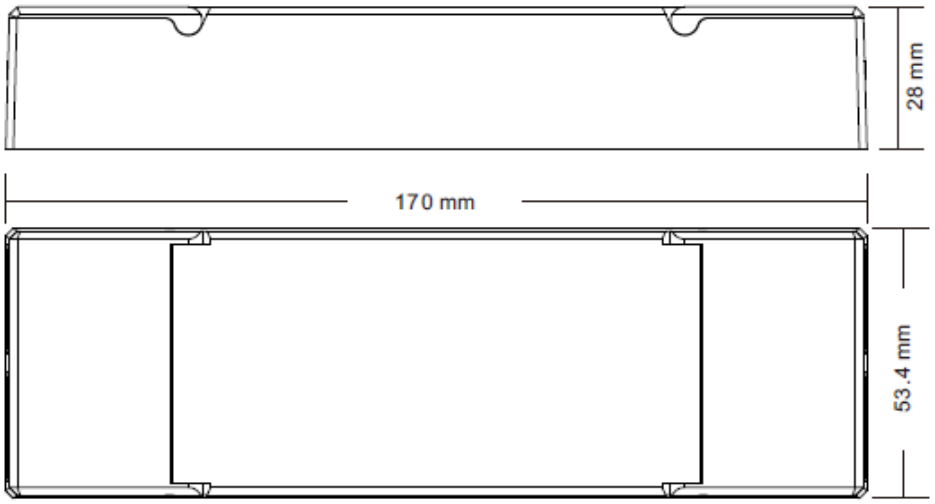
IP20

5 years warranty

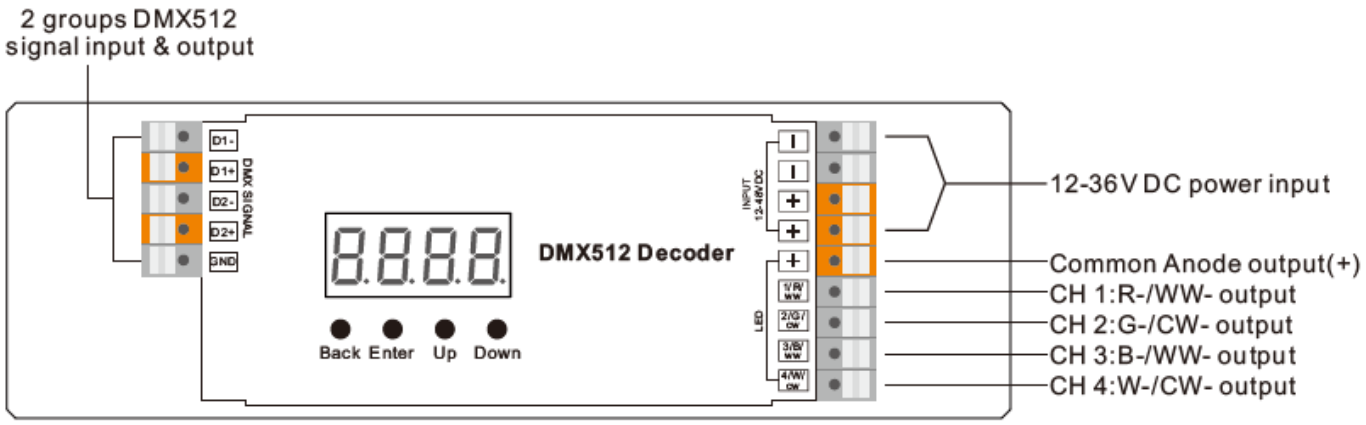
Technische Daten / Technical Data

Input Voltage	Output Current	Output Power	Renmarks	Size (LxWxH)
12-48VDC	4x5A@12-36V 4x2.5A@48V	4x(60-180)W@12-36V 4x120W@48V	Constant voltage	170x53.4x28mm
12-48VDC	4x350mA	4x(4.2-16.8)W	Constant current	170x53.4x28mm
12-48VDC	4x700mA	4x(8.4-33.6)W	Constant current	170x53.4x28mm

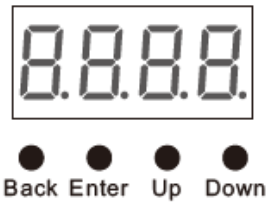
Abmessungen / Dimension



Funktionseinführung / Function introduction



Operation



Before you do other settings, please set the device to be Master or Decoder mode.
run1 = DMX Decoder mode ,run2 = DMX Master mode(stand alone).
Keep on clicking Down button, to get run1 or run2, then click Enter, then click Down button to choose 1 or 2, then click Back button.
After choose run1 or run2, please power off and power on again the device.

I. For run2 DMX Master mode: After power on the device, if keep on clicking Up button, you will find below menu on display:

1-01 Means brightness for each output PWM channel. First 1 means PWM output channel 1 and it is selectable from 1 to 4 by clicking "UP" or "Down" button. Second 01 means brightness level, click "Enter" button, the display flashes, then click "UP" or "Down" button to select from 00-99-FL, which means 0%-99%-100% brightness, then click "Back" button to confirm.

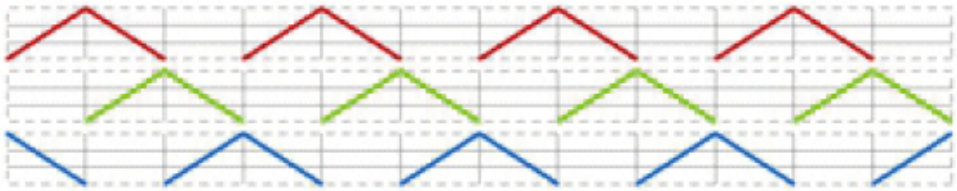
P.XXX Means programs , total 1~31 programs.

b-.XX Means RGB running effect's brightness, total 1~8 levels brightness

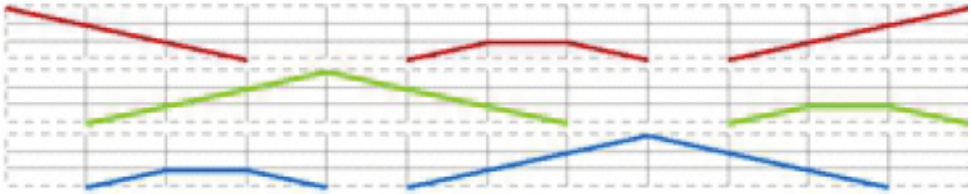
SP-X Means effect play speed. total 1~9 levels speed.

P-XX means RGB color changing modes, total 31 programs:

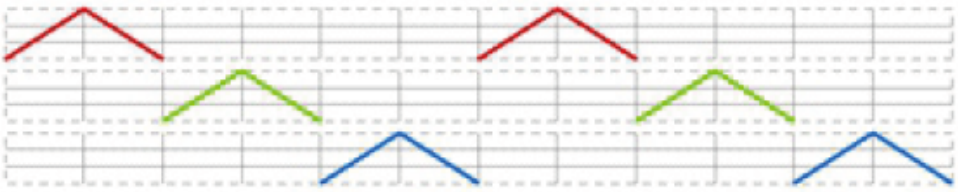
00- RGB off
01- Static red
02- Static green
03- Static blue
04- Static yellow (50% red+50% green)
05- Static orange (75% red+25% green)
06- Static cyan (50% green+50% blue)
07- Static purple (50% blue+50% red)
08- Static white (100% red+100% green+100% blue)
09- Any two colors of RGB mix fade, changing diagram as follow:



10- RGB colors mix fade, changing diagram as follow:

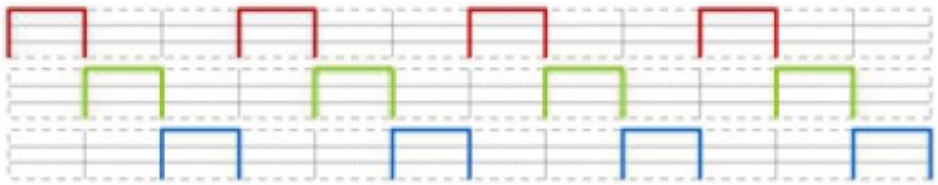


11- RGB FADE OUT & FADE IN, changing diagram as follow:



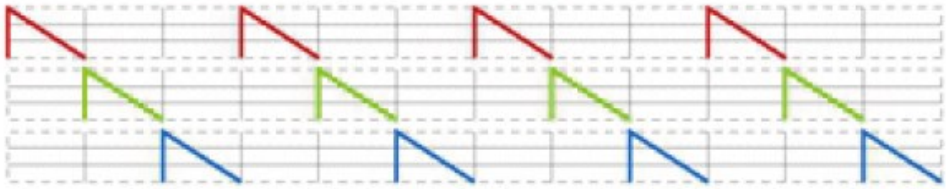
Operation

12- RGB jump changing, changing diagram as follow:



13- RGB FADE IN, changing diagram as follow:

14- RGB FADE OUT, changing diagram as follow:



15- RGB 3 colors strobe
16- White color strobe (100% red+100% green+100% blue)
17- 7 colors FADE OUT & FADE IN (red, orange, yellow, green, cyan, blue, purple FADE OUT & FADE IN)
18- 7 colors jump changing (red, orange, yellow, green, cyan, blue, purple jump changing)
19- 7 colors strobe (red, orange, yellow, green, cyan, blue, purple strobe)
20- Red-white (100% red+100% green+100% blue) circle gradual changing
21- Green-white (100% red+100% green+100% blue) circle gradual changing
22- Blue-white (100% red+100% green+100% blue) circle gradual changing
23- Red-orange circle gradual changing
24- Red-purple circle gradual changing
25- Green-yellow circle gradual changing
26- Green-cyan circle gradual changing
27- Blue-purple circle gradual changing
28- Blue-cyan circle gradual changing
29- Red-yellow-green circle gradual changing
30- Red-purple-blue circle gradual changing
31- Green-cyan-blue circle gradual changing

run2 Means the device at run2 mode (DMX master, standalone).

To make a setting is like this: Up/Down--- Enter--- Up/Down---Back

Operation

II. For run1 DMX decoder mode: After power on the decoder, if keep on clicking Up button, you will find below menu on display:

DMX signal indicator ● :: When DMX signal input is detected, the indicator on the display following after A turns on red A.XXX .

AAPO you will get this after power on the decoder, it means this decoder supports firmware OTA update function.

A.XXX Means DMX address. fa ctory defaults setting is 001.

CHXX Means DMX channels quantity.

bbXX Means Bit (8bit or 16bit). factory defaults setting is 16bit

PFXX Means output PWM frequency. factory defaults setting is 10K HZ

gaXX Means output dimming curve gamma value, factory defaults setting is ga 1.5

ddXX Means Decoding mode, factory defaults setting is dp1.1

run! Means the device at run1 mode (DMX decoder).

DMX address is 001, CH01

DMX Console Slider number / DMX channel	dp1.1	dp2.1
1	for all output dimming	for all output dimming
2	No use	for all output fine dimming

DMX address is 001, CH02

DMX Console Slider number / DMX channel	dp1.1	dp2.1	dp3.2
1	for output 1&3 dimming	for output 1&3 dimming	for output 1&3 dimming
2	for output 2,4 dimming	for output 1&3 fine dimming	for output 2,4 dimming
3		for output 2,4 dimming	for all output dimming
4		for output 2,4 fine dimming	

DMX address is 001, CH03

DMX Console Slider number / DMX channel	dp1.1	dp2.1	dp4.3	dp5.3
1	for output 1 dimming	for output 1 dimming	for output 1 dimming	for output 1 dimming
2	for output 2 dimming	for output 1 fine dimming	for output 2 dimming	for output 2 dimming
3	for output 3,4 dimming	for output 2 dimming	for output 3,4 dimming	for output 3,4 dimming
4		for output 2 fine dimming	for all output master dimming	for all output master dimming
5		for output 3,4 dimming		strobe effects
6		for output 3,4 fine dimming		

DMX address is 001, CH04

DMX Console Slider number / DMX channel	dp1.1	dp2.1	dp5.4	dp6.4
1	for output 1 dimming	for output 1 dimming	for output 1 dimming	for output 1 dimming
2	for output 2 dimming	for output 1 fine dimming	for output 2 dimming	for output 2 dimming
3	for output 3 dimming	for output 2 dimming	for output 3 dimming	for output 3 dimming
4	for output 4 dimming	for output 2 fine dimming	for output 4 dimming	for output 4 dimming
5		for output 3 dimming	for all output master dimming	for all output master dimming
6		for output 3 fine dimming		strobe effects
7		for output 4 dimming		
8		for output 4 fine dimming		

Operation

By holding button Back + Enter together at the same time over 5 seconds until the display go off, it will restore default settings .

1. DMX address setting:

select menu A XXX , click button "Enter", display flashes,then click or hold button "Up" / "Down" to set DMX address (click is slow, hold is fast.), then click button"Back" to confirm.

2. DMX channel quantity setting:

Select menu CH XX , click button "Enter", display flashes, then click button "Up" / "Down" to set DMX channel quantity , then click button"Back" to confirm.
For example the DMX address is already set 001.
CH01=1 DMX address for all the output channels, which are all address 001.
CH02=2 DMX addresses , output 1&3 is address 001, output 2,4 is address 002
CH03=3 DMX addresses, output 1, 2 is address 001,002, output 3,4 is address 003
CH04=4 DMX addresses, output 1,2,3,4 is address 001,002,003,004

3. PWM output resolution Bit setting:

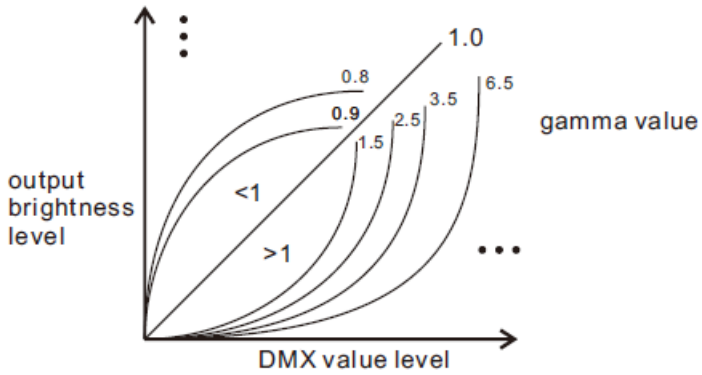
select menu bt XX, click button "Enter",display flashes, then click button "Up" / "Down" to choose 08 or 16 bit, then click button"Back" to confirm.

4. output PWM frequency setting:

select menu PF XX, click button "Enter", display flashes,then click button "Up" / "Down" to choose 00~35, then click button"Back" to confirm. 00=500HZ, 01=1kHZ, 02=2kHZ.....25=25kHZ, 35=35kHZ.

5. output dimming curve gamma value setting:

select menu GA XX, click button "Enter", display flashes, then click or hold button "Up" / "Down" to choose 0.1~9.9, then click button"Back" to confirm.



6. DMX decoding mode setting:

Select menu dP XX , click button "Enter", display flashes, then click or hold button "Up" / "Down"to choose the decoding mode, then click button"Back" to confirm. "dPxx" means the DMX address quantity used for control of corresponding PWM output channel quantity. 1st "x" is DMX address quantity, 2nd "x" is PWM channel quantity.

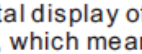
Fine dimming: the fine dimming effect can only be visible when the dimming curve gamma value is set 1.4, and the lower the value is, the more visible the fine dimming effect will be.

Operation

7. Firmware OTA update:

This function can be used when there is a firmware update from the manufacturer, the update can be executed through a Windows computer and an USB to serial port converter, the converter will connect the computer and the decoder's hard wire DMX port. A software RS485-OTW on the computer will be used to push the firmware to the decoder.

Connect the computer and the decoder through the USB to serial port converter, if you need to update multiple decoders' firmware, connect the converter to first decoder's DMX port, then connect other decoders to the first decoder in daisy chain through the DMX port. Please do not power on the decoders.

Run the OTA tool RS485-OTW on the computer, select the correct communication port "USB-SERIAL" , baudrate "250000", and data bit "9", use default settings for other configurations. Then click "file" button to select the new firmware from the computer, then click "Open Port", the firmware will be loaded. Then click "Download Firmware", the right side state column of the OTA tool will show "send link". Then power on the decoders before "wait erase" displaying on the state column, the digital display of the decoders will show  . Then "wait erase" will show on the state column, which means the updating starts. Then the OTA tool starts writing data to the decoders, the state column will show the progress, once writing data finishes, the digital display of the decoders will flash  , which means firmware updated successfully.

The data definitions for strobe channel are as follows:

{0, 7},//undefined
{8, 65},//slow strobe-->fast strobe
{66, 71},//undefined
{72, 127},//slow push fast close
{128, 133},//undefined
{134, 189},//slow close fast push
{190, 195},//undefined
{196, 250},//random strobe
{251, 255},//undefined

The supported RDM PIDs are as follows:

DISC_UNIQUE_BRANCH
DISC_MUTE
DISC_UN_MUTE
DEVICE_INFO
DMX_START_ADDRESS
IDENTIFY_DEVICE
SOFTWARE_VERSION_LABEL
DMX_PERSONALITY
DMX_PERSONALITY_DESCRIPTION
SLOT_INFO
SLOT_DESCRIPTION
MANUFACTURER_LABEL
SUPPORTED_PARAMETERS
MODULATION_FREQUENCY
MODULATION_FREQUENCY_DESCRIPTION
CURVE
CURVE_DESCRIPTION

Restore to Factory Default Setting

Press and hold down both "Back" and "Enter" keys until the digital display turns off, then release the keys, system will reset and the digital display will turn on again, all settings will be restored to factory default.
Default settings are as follows:
DMX Address Code: a001
DMX Address Quantity: SW1=0: ch04, SW1=1: ch03
PWM Resolution Mode: bt16
PWM Frequency: pf01
Gamma: ga1.5
Decoding Mode: dp1.1

Operation

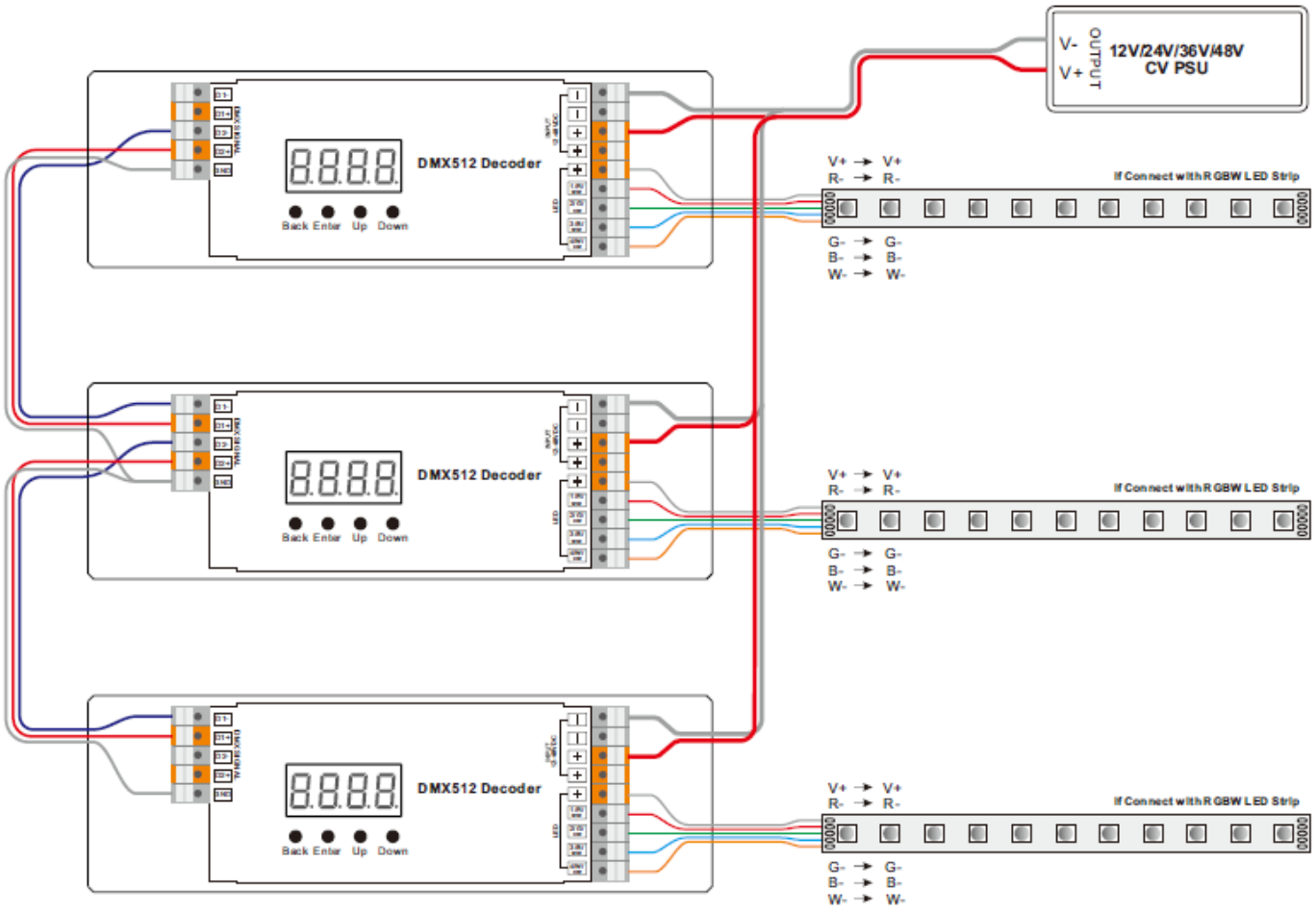
RDM Discovery Indication:

When using RDM to discover the device, the digital display will flash and the connected lights will also flash at the same frequency to indicate. Once the display stops flashing, the connected light also stops flashing.

Verdrahtung / Wiring Diagram

1.Work as Master mode

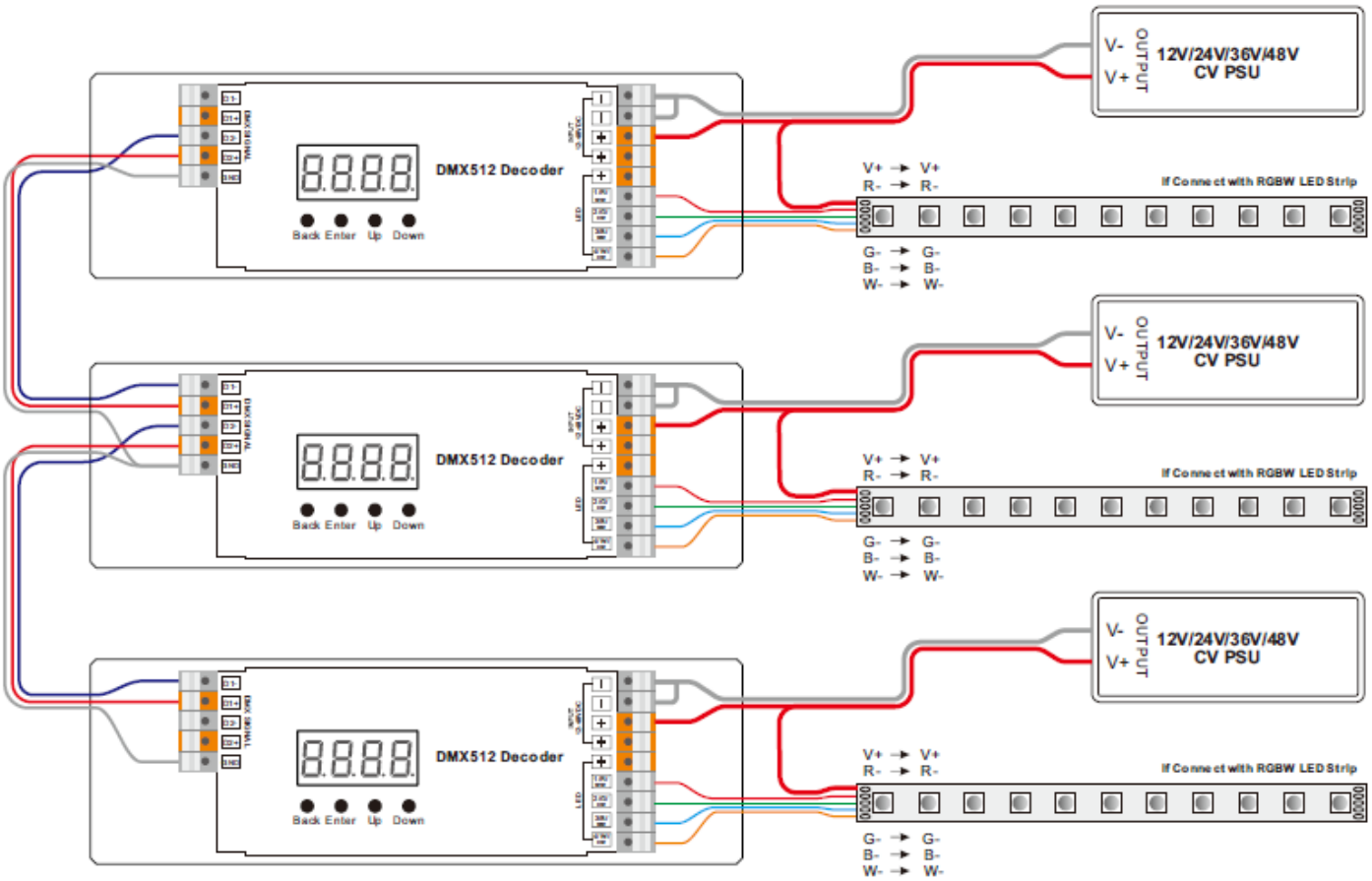
1) When total load of each receiver is not over 10A



Verdrahtung / Wiring Diagram

1.Work as Master mode

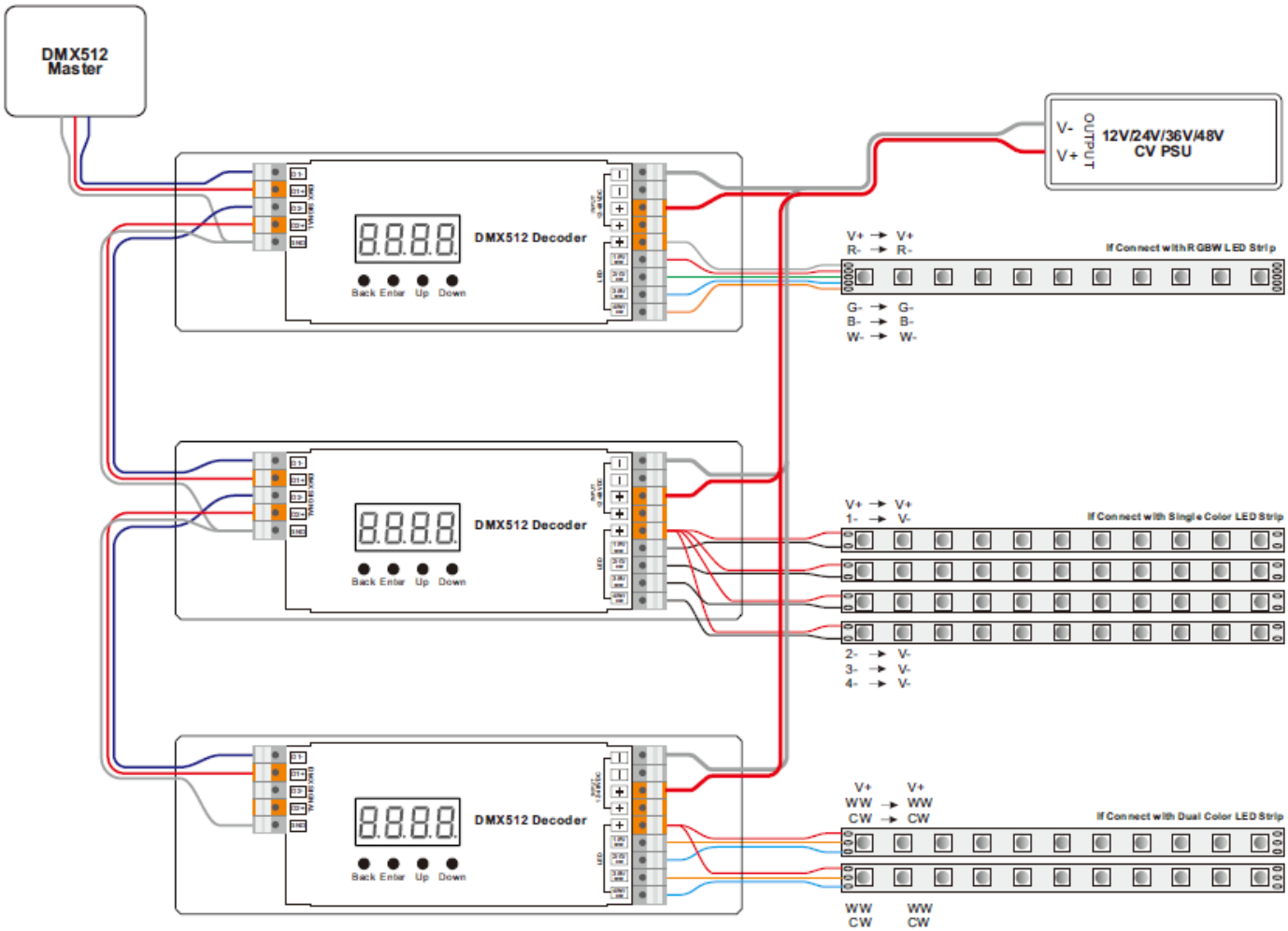
2) When total load of each receiver is over 10A



Verdrahtung / Wiring Diagram

2.Work as Decoder mode

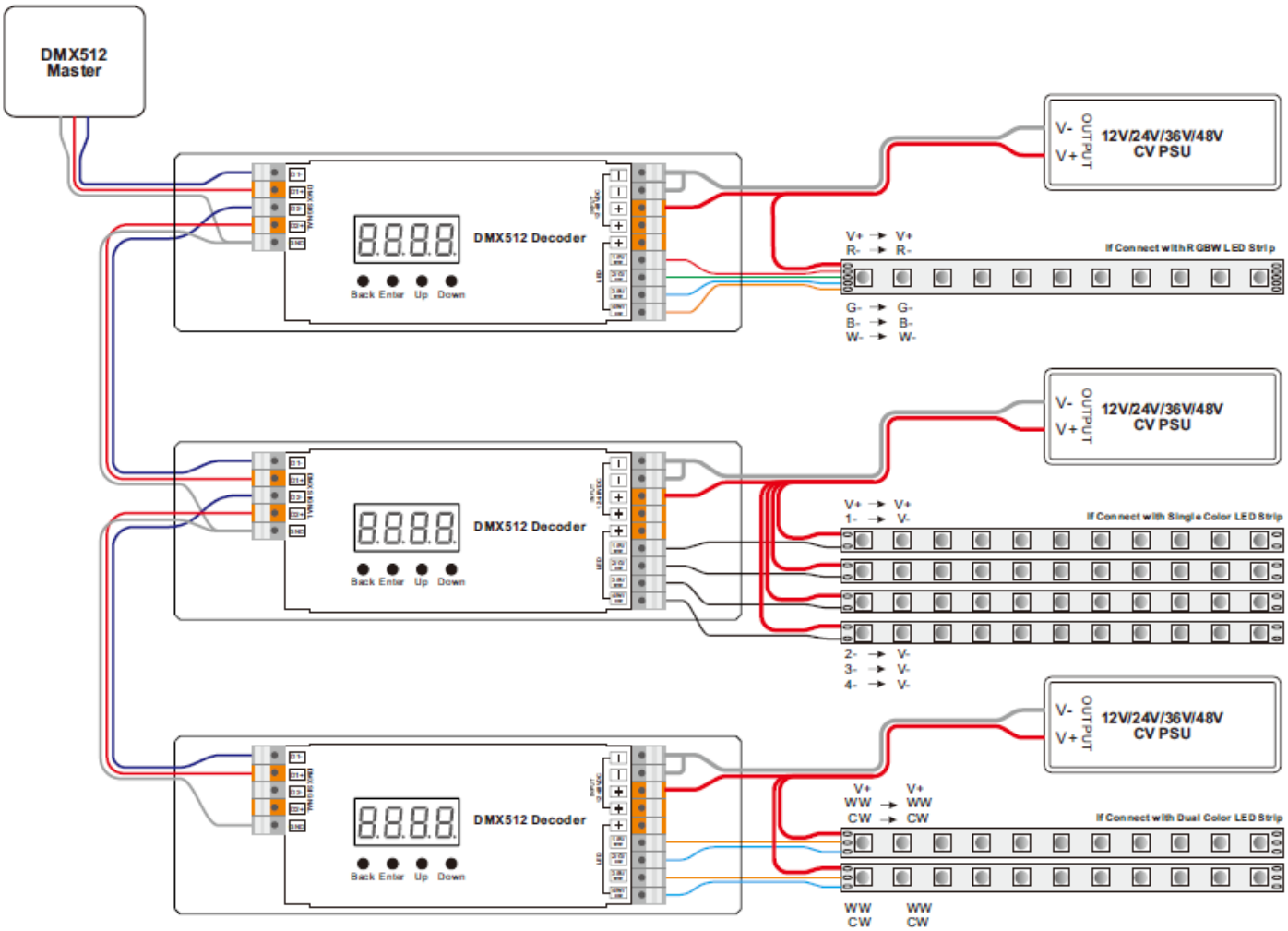
1) When total load of each receiver is not over 10A



Verdrahtung / Wiring Diagram

2.Work as Decoder mode

2) When total load of each receiver is over 10A



Installation

Sicherheit
Installieren Sie das Gerät nicht, während es am Stromnetz angeschlossen ist.
Stellen Sie den Betriebsstrom nicht bei Spannung am Gerät ein.
Setzen Sie das Gerät keiner Feuchtigkeit (inkl. Spritz- oder Tropfwasser) aus.
Treiber mit PWM Dimmung können durch Schwingungen Geräusche verursachen. Diese können sowohl durch schwingende Bauteile im Gerät, wie auch über Resonanzschwingungen von anderen Körpern erzeugt werden.

Safety
Do not install the unit while it is connected to the mains.
Do not adjust the operating current when the unit is live.
Do not expose the unit to moisture (including splashing or dripping water).
Drivers with PWM dimming can cause noise due to vibrations. These can be generated by vibrating components in the unit as well as by resonance vibrations from other bodies.