

## User Guide

### 4 Channel Constant Voltage or Constant Current DMX512 & RDM Decoder

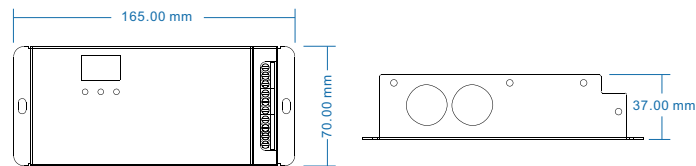
#### Summary

- 4 channel PWM constant voltage / constant current DMX decoder with digital display.
- DMX decode mode / Stand-alone RGB/RGBW mode / Stand-alone 4 channel dimmer mode.
- DMX address display, set DMX address freely.
- Comply with the latest DMX512, DMX512(1990), DMX512-A, RDM V1.0 (E1.20 - 2006 ESTA Standard) standard protocols.
- RDM bi-directional communication function, can realize intercommunication between DMX master and decoder. for example, you can set DMX decoder address by DMX master console.
- Under stand-alone RGB/RGBW controller mode, have 30 mode, include static color, jump, flash, gradual change style, adjustable speed and brightness.
- Under stand-alone 4 channel dimmer mode, each channel adjust brightness independently, and save up to 8 groups brightness.
- 1/2/4 DMX channel decode optional.
- High or low PWM frequency optional.
- Log or linear dimming curve optional.
- Three kinds of DMX signal input method, have XLR3 and RJ45 port.

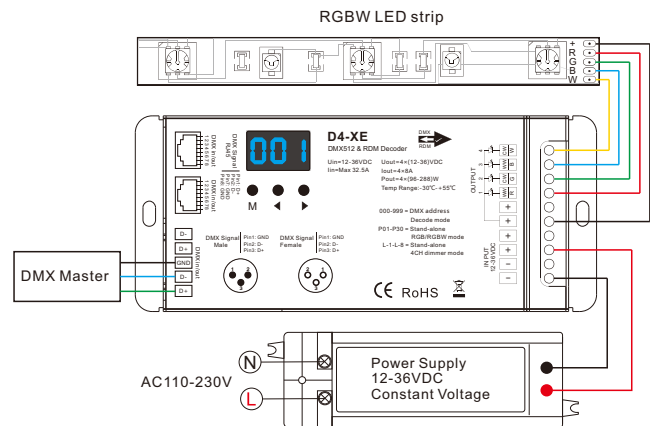
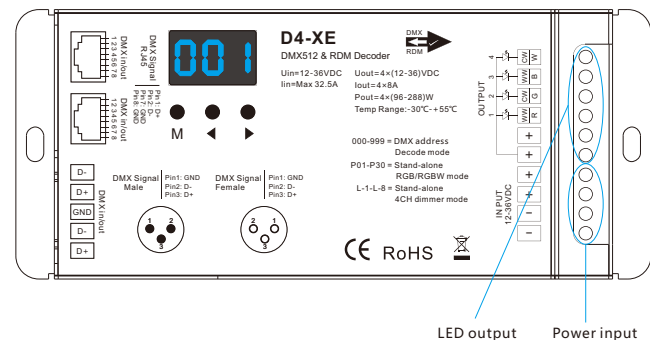
#### Technical parameter

| Model  | Name                  | Input voltage | Output current                 | Output power    | Output type      |
|--------|-----------------------|---------------|--------------------------------|-----------------|------------------|
| D4-XE  | 4CH CV DMX512 decoder | 12-36VDC      | 4CH,8A/CH                      | 4 x (96-288)W   | Constant voltage |
| D4C-XE | 4CH CC DMX512 decoder | 12-48VDC      | 4CH,150-1800mA (customized)/CH | 4 x (1.8-86.4)W | Constant current |

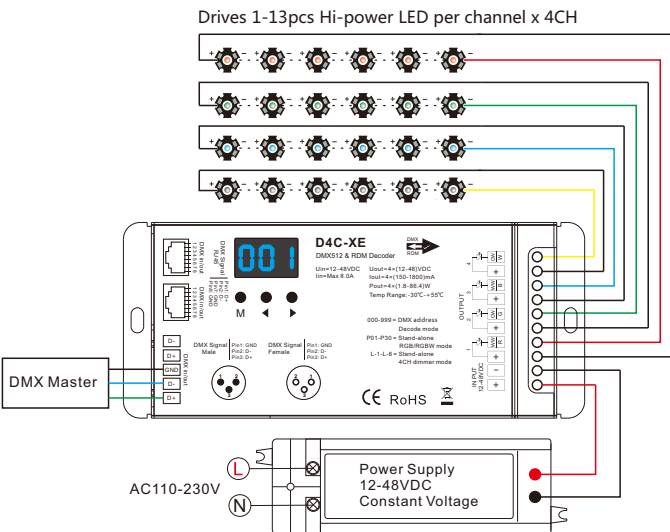
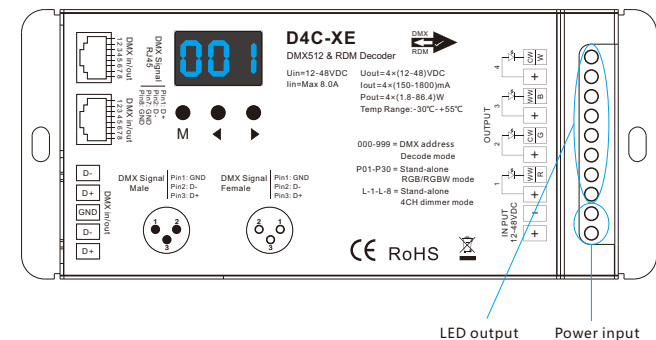
#### Dimension



#### D4-XE wiring diagram



#### D4C-XE wiring diagram



## Power supply select guide

For D4-XE, LED power supply voltage and power select :

- 12V lamp, Input 12V power supply, each channel can load 0~96W,
- 24V lamp, Input 24V power supply, each channel can load 0~192W,
- 36V lamp, Input 36V power supply, each channel can load 0~288W,  
The power supply power must larger than load power 20%.

For D4C-XE, 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

### System parameter setting

- Long press M and ◀ key for 2s, prepare for setup system parameter: decode mode, output PWM frequency, output brightness curve, automatic blank screen.  
short press M key to switch four item.
- Decode mode: short press ◀ or ▶ key to switch one-channel decode("d-1"), two-channel decode("d-2") or four-channel decode("d-4").
- Output PWM frequency: 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.

### DMX mode

- Short press M key, when display 001~999, enter DMX mode.
- Press ◀ or ▶ key to change DMX decode address(001~999),  
long press for fast adjustment.



DMX mode  
(001~999)

### Stand-alone RGB/RGBW mode

- Short press M key, when display P01~P30, enter stand-alone RGB/RGBW mode.
- Press ◀ or ▶ key to change dynamic mode number(P01~P30).
- Each mode can adjust speed and brightness.  
Long press M key for 2s, prepare for setup mode speed, brightness, W channel brightness.  
Short press M key to switch three item.  
Press ◀ or ▶ key to setup value of each 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).  
Long press M key for 2s, or timeout 10s, quit setting.



Stand-alone RGB/RGBW mode  
(P01~P30)



Speed (8 level)      Brightness (10 level,100%)

### RGB change mode list

| No. | Name          | No. | Name                  | No. | Name                      |
|-----|---------------|-----|-----------------------|-----|---------------------------|
| P01 | Static red    | P11 | Green strobe          | P21 | Red yellow smooth         |
| P02 | Static green  | P12 | Blue strobe           | P22 | Green cyan smooth         |
| P03 | Static blue   | P13 | White strobe          | P23 | Blue purple smooth        |
| P04 | Static yellow | P14 | RGB strobe            | P24 | Blue white smooth         |
| P05 | Static cyan   | P15 | 7 color strobe        | P25 | RGB+W smooth              |
| P06 | Static purple | P16 | Red fade in and out   | P26 | RGBW smooth               |
| P07 | Static white  | P17 | Green fade in and out | P27 | RGBY smooth               |
| P08 | RGB jump      | P18 | Blue fade in and out  | P28 | Yellow cyan purple smooth |
| P09 | 7 color jump  | P19 | White fade in and out | P29 | RGB smooth                |
| P10 | Red strobe    | P20 | RGBW fade in and out  | P30 | 6 color smooth            |

### Stand-alone dimmer mode

- Short press M key, when display L-1~L-8, enter stand-alone dimmer mode.
- Press ◀ or ▶ key to change dimmer mode number(L-1~L-8).
- Each dimmer mode can adjust each channel brightness independently.  
Long press M key for 2s, prepare for setup four channel brightness.  
Short press M key to switch four channel(100~1FF, 200~2FF, 300~3FF, 400~4FF).  
Press ◀ or ▶ key to setup brightness value of each channel.  
Long press M key for 2s, or timeout 10s, quit setting.
- Another way to setup channel brightness: Enter DMX mode,  
long press M key for 2s will save current decode value.



Stand-alone dimmer mode  
(L-1~L-8)

### Restore factory default parameter

- Long press ◀ and ▶ key for 2s, restore factory default parameter, display"RES".
- Factory default parameter: DMX decode mode, DMX first address is 1, four channel decode, high PWM frequency output, logarithmic brightness curve, RGB mode number is 1, dimmer mode number is 1, disable automatic blank screen.

## Malfunctions analysis & troubleshooting

| Malfunctions                                               | Causes                                                                                                                                                     | Troubleshooting                                                                                                       |
|------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| No light                                                   | 1. No power.<br>2. Wrong connection or insecure.                                                                                                           | 1. Check the power.<br>2. Check the connection.                                                                       |
| Wrong color                                                | 1. Wrong connection of R/G/B/W wires.<br>2. DMX decode address error.                                                                                      | 1. Reconnect R/G/B/W wires.<br>2. Set correct decode address.                                                         |
| Jneven intensity between front and rear, with voltage drop | 1. Output cable is too long.<br>2. Wire diameter is too small.<br>3. Overload beyond power supply capability.<br>4. Overload beyond controller capability. | 1. Reduce cable or loop supply.<br>2. Change wider wire.<br>3. Replace higher power supply.<br>4. Add power repeater. |

## 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 complywith 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.