

# User Guide

## 4 Channel 0/1-10V DMX512 Decoder

The DMX512 & RDM decoder DL / DL-L which receives and converts DMX512 signal to 4 channels 0/1-10V signal to switch and dim single color LED lighting. It features full support to the latest DMX512 protocols. RDM bi-direction communication function enables the DMX512 master console to detect and display decoder information and set DMX address. A variety of features can be set via the numeric digital display and the buttons such as DMX address, DMX decoding mode and dimming curve value.

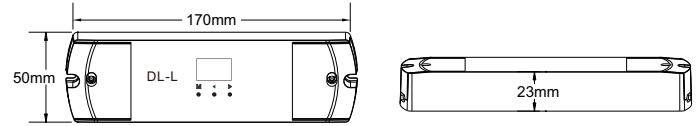
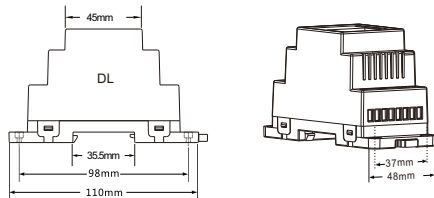
### Feature

- DMX512 to 0/1-10V signal decoder with digital display.
- 4 channel 0/1-10V analog signal or 5V / 10V PWM signal (need customize) output.
- Connect with 0/1-10V input dimming driver, such as 0-10V dimmable power supply.
- DMX decode mode / Stand-alone RGB/RGBW mode / Stand-alone 4 channel dimmer mode.
- Standard DMX512 compliant interface, DMX address display, set DMX address freely.
- Comply with the latest DMX512, DMX512(1990), DMX512-A, RDM V1.0 (E.1.20 - 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.
- Compaital with our DMX master and any high quality DMX master from other supplier.
- Under stand-alone RGB/RGBW controller mode, have 24 kinds mode, include static color, jump or 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.
- 0-10V or 1-10V output optional.
- High or low PWM frequency optional.
- Log or linear dimming curve optional.

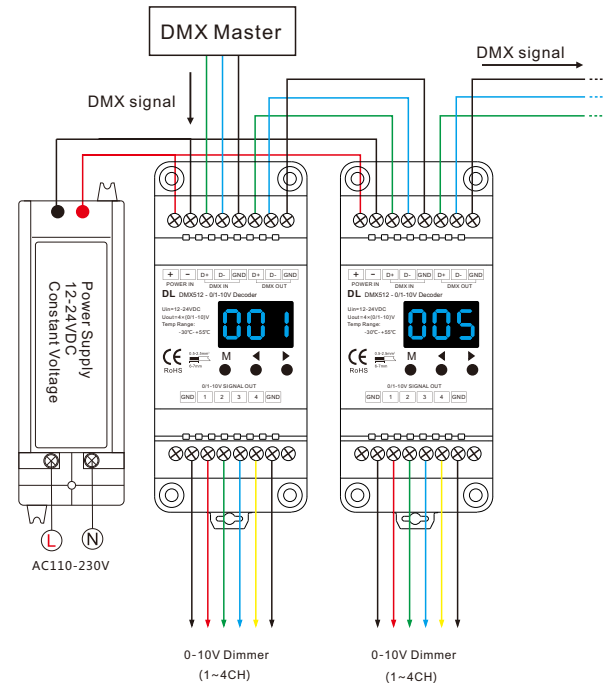
### Technical parameter

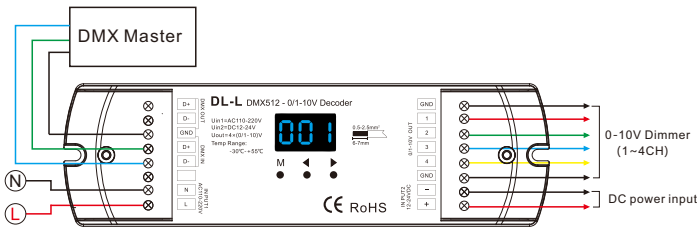
Model	Input voltage	Output current	Output signal	Size(mm)
DL	12-24VDC	4CH,20mA/CH	0/1-10V analog or 5V/10V PWM	115x48x67
DL-L	85-265VAC or 12-24VDC	4CH,20mA/CH	0/1-10V analog or 5V/10V PWM	170x50x23

### Dimension



### Wiring diagram





AC85~265V

## Operation

### System parameter setting

- Long press M and ◀ key for 2s, prepare for setup system parameter: decode mode, 0/1-10V output, 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 decoder("d-4").
- 0/1-10V output: short press ◀ or ▶ key to switch 0-10V("0-0") or 1-10V("1-0").
- 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.
- If there is a DMX signal input, will enter DMX mode automatically.



DMX mode  
(001~999)

### Stand-alone RGB/RGBW mode

- Short press M key, when display P01~P24, enter stand-alone RGB/RGBW mode.
- Press ◀ or ▶ key to change dynamic mode number(P01~P24).
- 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.
- Enter stand-alone RGB/RGBW mode only when DMX signal is disconnected or lost.



Stand-alone RGB/RGBW mode  
(P01~P24)



Speed  
(8 level)



Brightness  
(10 level,100%)

## RGB change mode list

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



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, 0-10V output, low PWM frequency output, linear 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. 2. Wrong connection or insecure.	1. Check the power. 2. Check the connection.
Wrong color	1. Wrong connection of R/G/B/W wires. 2. DMX decode address error.	1. Reconnect R/G/B/W wires. 2. Set correct decode address.

## Safety information

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