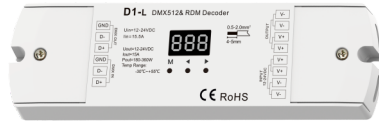


# 1 Channel Constant Voltage DMX512 & RDM Decoder

Model No.: D1-L

RDM/Stand-alone function/Two PWM frequency/Logarithmic or linear dimming/Numeric display/Multiple protection



CE RoHS EMC LVD

## Features

- Comply with the DMX512 standard protocols.
- Digital numeric display, set DMX decode start address by buttons.
- RDM function can realize intercommunication between DMX master and decoder.  
For example, DMX decoder address can be set by DMX master console.
- PWM frequency 2000/500Hz selectable.
- Logarithmic or linear dimming curve selectable.
- Stand-alone dynamic mode and dimmer mode selectable,  
which be controlled by buttons with built-in programs, instead of DMX signal.
- Over-heat / Over-load / Short circuit protection, recover automatically

## Technical Parameters

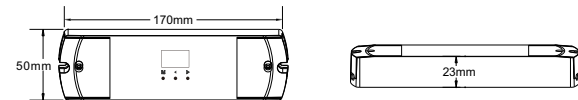
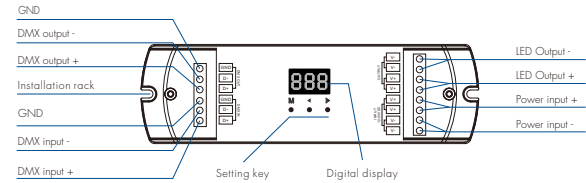
Input and Output	
Input voltage	12-24VDC
Input current	1.5-5A
Output voltage	12-24VDC
Output current	1CH, 1.5A
Output power	180-360W
Output type	Constant voltage

Environment	
Operation temperature	Ta: -30°C ~ +55°C
Case temperature (Max.)	Tc: +85°C
IP rating	IP20

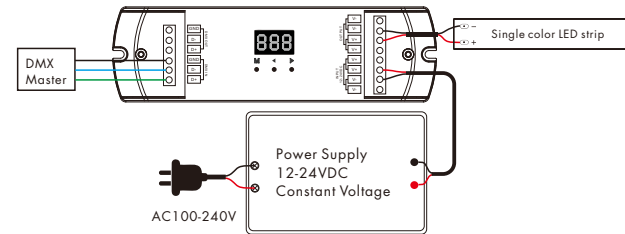
Safety and EMC	
EMC standard [EMC]	EN55032:2015, EN61000-3-2:2014, EN61000-3-2:2013, EN55024 :2010/A1:2015
Safety standard[LVD]	EN 61347-1:2015 EN 61347-2-11:2015
Certification	CE,EMC,LVD

Warranty and Protection	
Warranty	5 years
Protection	Reverse Polarity Over-heat Over-load Short circuit

## Mechanical Structures and Installations



## Wiring Diagram



### Note:

1. An DMX signal amplifier is needed if more than 32 decoders are connected, or use overlong signal line, signal amplification should not be more than 5 times continuously.
2. If the recoil effect occurs because of longer signal line or bad line quality, please try to connect 0.25W 90-120Ω terminal resistor at the end of each DMX signal line.

## Operation

### System parameter setting

- Long press M and ◀ key in the same time for 2s, prepare for setup system parameter: output PWM frequency, output brightness curve, automatic blank screen. short press M key to switch three item.
- Output PWM frequency: short press ◀ or ▶ key to switch 500Hz["FL"] or 2KHz["FH"].  
Higher PWM frequency, will cause lower output current, higher power noise, but more suitable for camera(No flickers for video).
- Output brightness curve: short press ◀ or ▶ key to switch linear curve["CL"] or logarithmic curve["CE"].
- 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 start address(001~999), long press for fast adjustment.
- If there is a DMX signal input, will enter DMX mode automatically.
- DMX Dimming: Each D1-L DMX decoder occupy 1 DMX address when connecting the DMX console.



DMX mode  
(001~999)

### Stand-alone dynamic mode

- Enter stand-alone dynamic mode only when DMX signal is disconnected or lost.
- Short press M key, when display P-1~P-3, enter stand-alone dynamic mode.
- Press ◀ or ▶ key to change dynamic mode number(P-1~P-3).
- Each mode can adjust speed and brightness.  
Long press M key for 2s, prepare for setup mode speed and brightness.  
Short press M key to switch two item.  
Press ◀ or ▶ key to setup value of each item.  
Mode speed: 1-10 level speed(S-1, S-9, SF).
- Mode brightness: 1-10 level brightness(b-1, b-9, bF).  
Long press M key for 2s, or timeout 10s, quit setting.



Stand-alone dynamic mode  
(P-1~P-3)



Speed  
(8 level)



Brightness  
(10 level, 100%)

### Dynamic mode list

No.	Name
P-1	white fade in and fade out
P-2	white jump
P-3	white flash

### Stand-alone dimmer mode

- Enter stand-alone dimmer mode only when DMX signal is disconnected or lost.
- 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 brightness independently.  
Long press M key for 2s, prepare for setup brightness(b00~bFF).  
Press ◀ or ▶ key to adjust brightness value.  
Short press M key, or timeout 10s, quit setting.



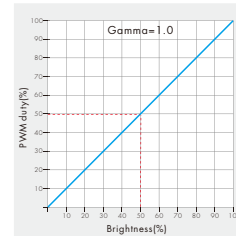
Stand-alone dimmer mode  
(L-1~L-8)

### Restore factory default parameter

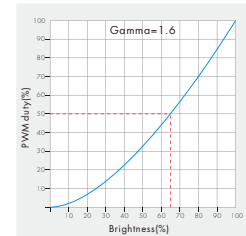
- Long press ◀ and ▶ key for 2s, restore factory default parameter, display "RES".
- Factory default parameter: DMX decode mode, DMX decode start address is 1, high PWM frequency output, logarithmic brightness curve, dynamic mode number is 1, dimmer mode number is 1, disable automatic blank screen.

### Dimming curve setting

Linear dimming curve



Logarithmic dimming curve



### 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. DMX decode address error.	1. Set correct decode address.
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.