

User Guide

12 Channel DMX512 Decoder

The DMX512 & RDM decoder D12 which features full support to the latest DMX512 protocols, is designed with 12 channels output. 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, PWM output frequency and dimming curve value.

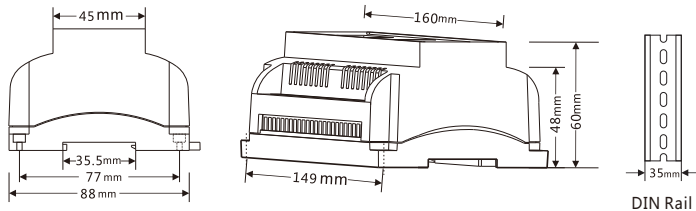
Feature

- Din rail mounted DMX512 decoder with 12 channel constant voltage output.
- DMX decode mode / Stand-alone RGB mode / Stand-alone 12 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 (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.
- Compatible with our DMX master and any high quality DMX master from other supplier.
- Under stand-alone 12ch RGB controller mode, have 4 kinds dynamic mode.
- Under stand-alone 12ch dimmer mode, each channel adjust brightness independently, and save up to 8 groups brightness.
- High or low PWM frequency optional.
- Log or linear dimming curve optional.
- Work with power repeater to expand output unlimitedly.
- Din rail or screw mounted optional.

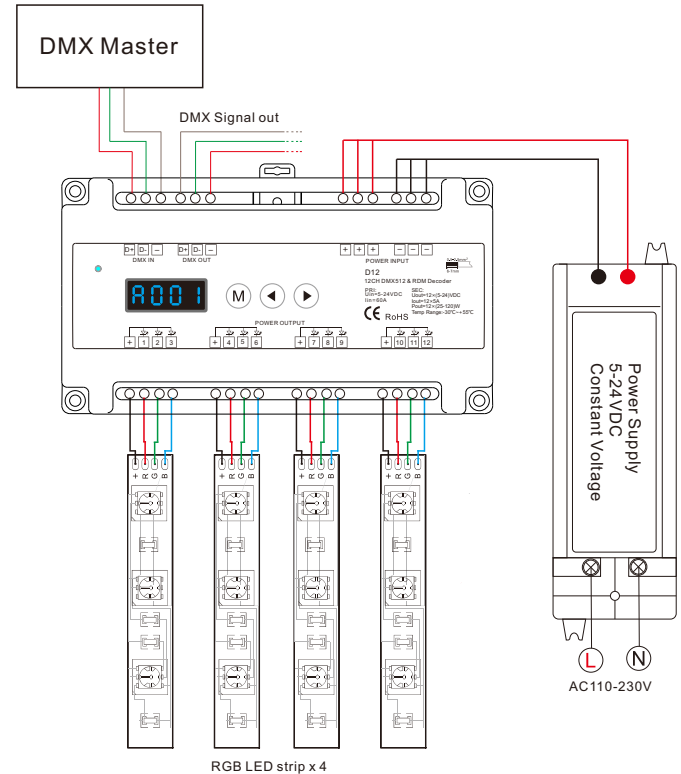
Technical parameter

Model	Name	Input voltage	Output current	Output power	Output type
D12	12CH CV DMX512 decoder	5-24VDC	12CH,5A/CH	12 x (25-120)W	Constant voltage

Dimension



Wiring diagram



LED power supply voltage and power select:

- 12V lamp, Input 12V power supply, can load 0~720W,
 - 24V lamp, Input 24V power supply, can load 0~1440W,
- The power supply power must larger than load power 20%.

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 1-channel decode("d--1"), 3-channel decode("d--3"), 6-channel decode("d--6") or 12-channel decode("d-12").
- 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("boFF") automatic blank screen.
- Long press M key for 2s or timeout 10s, quit system parameter setting.

DMX mode

- Short press M key, when display A001~2048, enter DMX mode.
- Press ◀ or ▶ key to change DMX decode address(001~2048), long press for fast adjustment.
- If there is a DMX signal input, will enter DMX mode automatically.



Stand-alone RGB mode

- Short press M key, when display P--1~P--4, enter stand-alone RGB mode.
- Press ◀ or ▶ key to change dynamic mode number(P--1~P--4).
- Each mode can adjust speed and brightness.



- Long press M key for 2s, prepare for setup mode speed, brightness. Short press M key to switch two item.
- Press ◀ or ▶ key to setup value of each item.
- Mode speed : 1-10 level speed(SP-1, SP-9, SP-F).
- Mode brightness: 1-10 level brightness(br-1, br-9, br-F).
- Long press M key for 2s, or timeout 10s, quit setting.
- Enter stand-alone RGB mode only when DMX signal is disconnected or lost.



RGB change mode list

No.	Name
P--1	White forward jump chase
P--2	White forward smooth float
P--3	Red,green,blue,white forward jump chase
P--4	Red,yellow, green,cyan,blue,purple forward smooth float

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 12 channel(0100~01FF, 0200~02FF, 0300~03FF, ..., 1200~12FF).



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

- Press ◀ or ▶ key to setup brightness value of each channel. Long press M key for 2s, or timeout 10s, quit setting.
- Enter stand-alone dimmer mode only when DMX signal is disconnected or lost.

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, 12 channel decode, low 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. 2. Wrong connection or insecure.	1. Check the power. 2. Check the connection.
Wrong color	1. Wrong connection of R/G/B wires. 2. DMX decode address error.	1.Reconnect R/G/B wires. 2. 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.

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.