

DMX512-RDM Constant Voltage Decoder User Manual



(Please read through this manual carefully before use)

Update Time: 2019.05.14

1. Brief Introduction

Welcome to use the Constant Voltage DMX512 Decoder which is developed only for constant voltage LED lamps. It adopted advanced micro-computer control technology to transfer standard RDM-DMX512/1990 signal to PWM signal. User can choose 1~4 output channels, 65536 gray scales, workable for single color, color temperature, RGB and RGBW led lamp.

2. Specifications

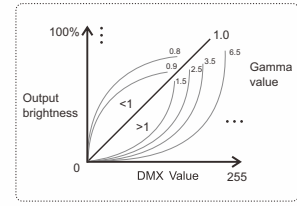
Model	DMX512 Decoder
Input voltage	DC12V-DC24V
Max load current	5A*4CH , Max 20A
Max output power	240W(12V)/480W(24V)
Scale level	256 levels(8bit)/65536 levels(16bit)
Input signal	DMX512/RDM
Output signal	Constant Voltage PWM*4CH
Output frequency	3K、 6K、 12K、 24K selectable
DMX512 socket	Terminal block
Control mode	DIM /CT /RGB /RGBW 4 modes switch
Dimension	L176 X W46 X H30(mm)
Weight (G.W)	140g

3. Basic Features

1. Easy operation with OLED screen and touch buttons.
2. 8bit (256 levels)/16bit (65536 levels) grey level optional.

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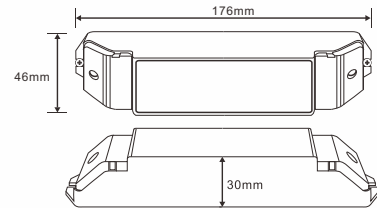
3. With RDM remote management protocol, the operations can be completed via the RDM master console, such as parameters browsing & setting, DMX address setting, equipment recognition, etc.
4. Optional for standard, linear, LOG or custom 0.1-9.9 dimming curve.
5. Power-off data saved function.
6. Over current protection and short circuit protection.



4. Safety warnings

- Please don't install this controller in lightening, intense magnetic and high-voltage fields.
- 1.To reduce the risk of component damage and fire caused by short circuit, make sure correct connection.
 - 2.Always be sure to mount this unit in an area that will allow proper ventilation to ensure a fitting temperature.
 - 3.Check if the voltage and power adapter suit the controller. (please select DC12-24V power supply with constant voltage)
 - 4.Don't connect cables with power on; make sure a correct connection and no short circuit checked with instrument before power on.
 - 5.Please don't open controller cover and operate if problems occur. The manual is only suitable for this model; any update is subject to change without prior notice.
 6. More than 32 DMX decoders need to be connected a signal amplifier, and the signal amplification cannot exceed 5 times consecutively.
 7. When the signal line is long or the wire quality causes the signal recoil effect to affect the use of product, you can try to connect 0.25W 90-120Ω terminating resistor at the end of each signal line to solve.

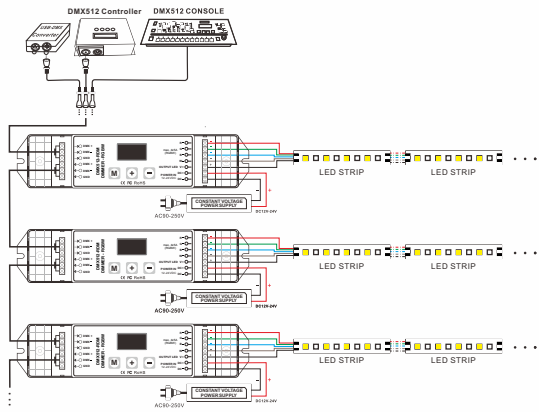
5. Dimensions



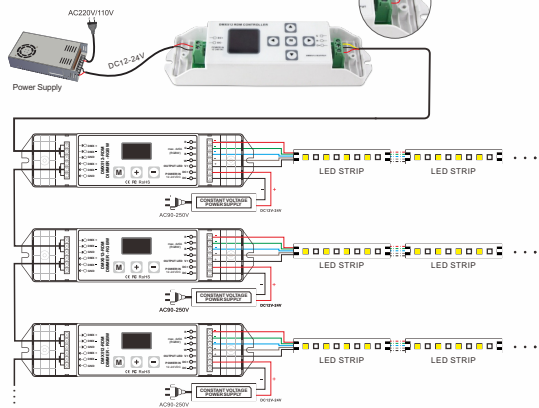
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6. Conjunction Diagram

1. Connect to DMX system:



2. Work with RDM controller:



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7. Operating instructions

OLED screen interface:

Press "M" key, switch entries. Press "+" or "-" key, parameter adjustment. Exit: back to previous page. Long press three buttons in case of power off. Restart to restore the factory settings.

1. Lock screen interface :

A: 001 B: 8 F: 3.0 M: RGBW C: 1.8 * Decode Mode, Long press M unlock. After 10 seconds of no operation, enter the screen lock interface, only the parameters that have been set are displayed. Press the M key for 2 seconds to unlock. When DMX signal input, a star symbol flashing.

2. DMX address setting

DMX Addr : 001 DMX Bit : 8 Output Freq : 3.0K Output Mode : RGBW Main page Press "+" or "-" key to set DMX address. Range: 001-512

3. PWM frequency

DMX Addr : 001 DMX Bit : 8 Output Freq : 3.0K Output Mode : RGBW Press "+" or "-" key to choose. Optional : 3K, 6K, 12K, 24K It is recommended to use 3K

4. Mode

DMX Addr : 001 DMX Bit : 8 Output Freq : 3.0K Output Mode : RGBW Press "+" or "-" key to choose. Optional : DIM, CT, RGB, RGBW

5. Grey scale

DMX Addr : 001 DMX Bit : 8 Output Freq : 3.0K Output Mode : RGBW Press "+" or "-" key to choose. Optional : 8bit 16bit (can be used when the master supports this feature)

6. Dimming curve

Output Curve : 1.0 Enter Test Mode Press "+" or "-" key to choose. Optional : 0.1-9.9 (only 8bit can be set) It is recommended to use 1.8 0.1-9.9 is for special requirements.

7. Overcurrent/short circuit fault

CH W over current When overcurrent or short circuit occurs, the digital tube displays the corresponding fault channel

8. Built-in test

Mode: M0 8 Bit R: 000 G: 000 B: 000 W: 000 Curve: 1.8 Exit Press "+" or "-" key to choose. Optional: Mode M0-10 Digits 8bit or 16bit Grey scale 0-255 or 0-65536 Gamma value 0.1-9.9(only 8bit can be set)

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Test mode as below:

NO	Modes	Description
M0	RGBW can be dimmed separately in static mode	Brightness adjustable
M1	3 color skipping	Brightness, speed adjustable
M2	7 color skipping	Brightness, speed adjustable
M3	White color strobe	Brightness, speed adjustable
M4	3 color smooth	Brightness, speed adjustable
M5	Full color smooth	Brightness, speed adjustable
M6	RG color smooth	Brightness, speed adjustable
M7	R B color smooth	Brightness, speed adjustable
M8	GB color smooth	Brightness, speed adjustable
M9	White color fade & change	Brightness, speed adjustable
M10	Great cycle	All mode cycle

8. After-Sales

From the day you purchase our products within 3 years, if being used properly in accordance with the instruction, and quality problems occur, we provide free repair or replacement services except the following cases:

- 1.Any defects caused by wrong operations.
- 2.Any damages caused by inappropriate power supply or abnormal voltage.
- 3.Any damages caused by unauthorized removal, maintenance, modifying circuit, incorrect connections and replacing chips.
- 4.Any damages due to transportation, breaking, flooded water after the purchase.
- 5.Any damages caused by earthquake, fire, flood, lightning strike etc force majeure of natural disasters.
- 6.Any damages caused by negligence, inappropriate storing at high temperature and humidity environment or near harmful chemicals.
- 7.Product has been updated.

9. Kindly Reminder

Power Source Selection: Power source must be DC constant voltage type of power supply. Due to the efficient output in some power supplies are only 80% of total, so please select at least 20% higher output power supply than the consumption of LED lights.

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