

DIN Rail DMX512 Constant Voltage Decoder



(Please read through this manual carefully before use)
Update Time: 2019.4.16

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 DMX512/1990 signal to PWM signal. user can choose 1~5 output channels, 4096 Grey Scales. It can be used as DMX512 master or as DMX decoder to connect computerized digital output console with analog silicon case and controls LED lamps of architecture and lighting.

2. Specifications

1CH Constant Voltage Decoder/RJ45

- Input Voltage: DC12V-24V
- Output Current: 10A×1CH
- Output Power: 120W/240W(12V/24V)
- Grey Scale: 4096
- Input Signal: DMX512/1990
- Output Signal: Constant Voltage PWM
- Decode Channel: 1CH
- DMX512 Socket: Terminal Block/RJ45
- Dimension: L111×W46×H66(mm)
- Weight(G.W): 135g/130g



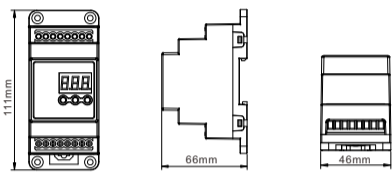
3CH Constant Voltage Decoder/RJ45

- Input Voltage: DC12V-24V
- Output Current: 8A×3CH
- Output Power: 288W/576W(12V/24V)
- Grey Scale: 4096×3
- Input Signal: DMX512/1990
- Output Signal: Constant Voltage PWM
- Decode Channel: 3CH
- DMX512 Socket: Terminal Block/RJ45
- Dimension: L111×W46×H66(mm)
- Weight(G.W): 138g/133g



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5. Dimensions



6. Operating instructions

The decoder has 3 keys, respectively M, +, -, long press "M" for 2 seconds to enter.

M	Change order in 3 digital display
+	Increase value
-	Decrease value

Three-digital-display indicates the current setting value; different value indicates different operating status. Three-digital-display goes off without operation for 30 seconds, press any key to turn it on. When it is overload or short-circuit, the decoder will automatically stop output, LED display shows: "ERR", as below:



The decoder has an automatic key lock. If no settings are made to the decoder, the key lock function is activated after approximately 15 seconds automatically. Pressing M button for about 2 seconds to deactivated. Subsequently, the decoder can be set.

1. DMX Slave Mode: The value is: 001-512, such as: "001"



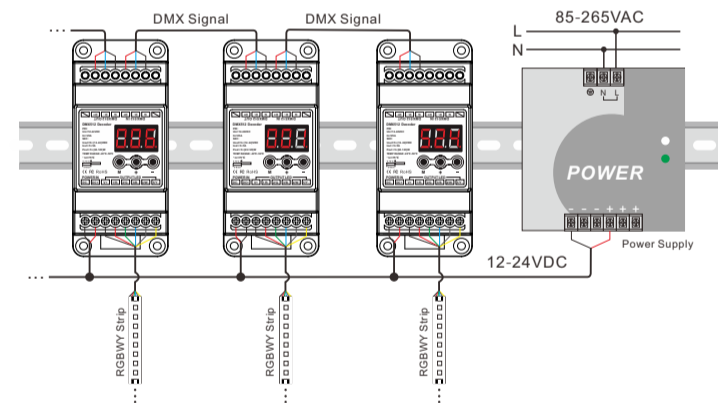
The decimal point of last digital of the display tube will twinkle regularly when receives DMX512 signal normally. When no signal is received, the decimal point does not twinkle, and showing current DMX address.

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7. Wiring Indication

Use terminal block:

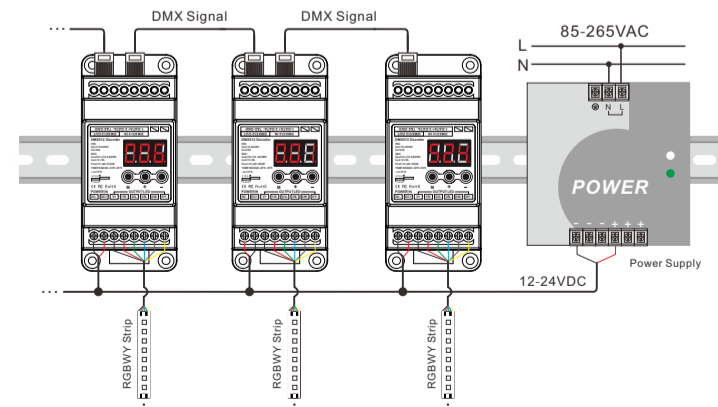
1) Wiring diagram of Master Mode: (Only one decoder is allowed to work as a master)



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Use RJ45:

1) Wiring diagram of Master Mode: (Only one decoder is allowed to work as a master)



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4CH Constant Voltage Decoder/RJ45

- Input Voltage: DC12V-24V
- Output Current: 6A×4CH
- Output Power: 288W/576W(12V/24V)
- Grey Scale: 4096×4
- Input Signal: DMX512/1990
- Output Signal: Constant Voltage PWM
- Decode Channel: 4CH
- DMX512 Socket: Terminal Block/RJ45
- Dimension: L111×W46×H66(mm)
- Weight(G.W): 138g/133g



5CH Constant Voltage Decoder/RJ45

- Input Voltage: DC12V-24V
- Output Current: 5A×5CH
- Output Power: 300W/600W(12V/24V)
- Grey Scale: 4096×5
- Input Signal: DMX512/1990
- Output Signal: Constant Voltage PWM
- Decode Channel: 5CH
- DMX512 Socket: Terminal Block/RJ45
- Dimension: L111×W46×H66(mm)
- Weight(G.W): 140g/135g



3. Basic Features

1. Automatically adapts input voltage DC12V-24V.
2. Input standard DMX512 signal; 3-digital-display shows DMX address code.
3. 5 channels output; 4096 grey scales each; logarithmic dimming; lamplight soft & stable without strobe flash.
4. DMX Master mode, slave mode available.
5. Built-in 8 color changing modes and 10 speed scales.
6. Indicator of the DMX512 signal receiving status.
7. Power loss memory function.
8. Wrong wiring protection at DMX port, over current protection and short circuit protection.
9. The DIN rail style design facilitates the installation of large-scale projects.

4. Safety warnings

Please don't install this controller in lightning, 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.

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DMX master mode preset patterns list :

000	All channels to 100%	
513	RED	
514	GREEN	
515	BLUE	
516	MAGENTA	
517	CYAN	
518	YELLOW	
519	ORANGE	
520-529	Red, orange, yellow, green, cyan, blue, magenta (Fading mode)	
530-539	White, magenta, red, orange, yellow, green, cyan, blue (Fading mode)	
540-549	Yellow/orange, red (Fading mode)	
550-559	Magenta blue (Fading mode)	
560-569	Cyan, blue (Fading mode)	
570-579	Green, yellow, (Fading mode)	
580-589	All 5 channels make a pulsating move from 1% to 100% (Fading mode)	
590-599	Strobo for all 5 channels 0% to 100% (Jumping mode)	
1.00-1.99	Red from 0 to 99%	Independent dimming for each channel, automatically memorizing the current dimming value of each channel.
2.00-2.99	Green from 0 to 99%	
3.00-3.99	Blue from 0 to 99%	
4.00-4.99	White from 0 to 99%	
5.00-5.99	CW from 0 to 99%	

*520-599, First two digital indicate the modes, the third one shows the speed. 10 speed levels, from 0-9 speed decreasing. Total: 8 modes, such as :

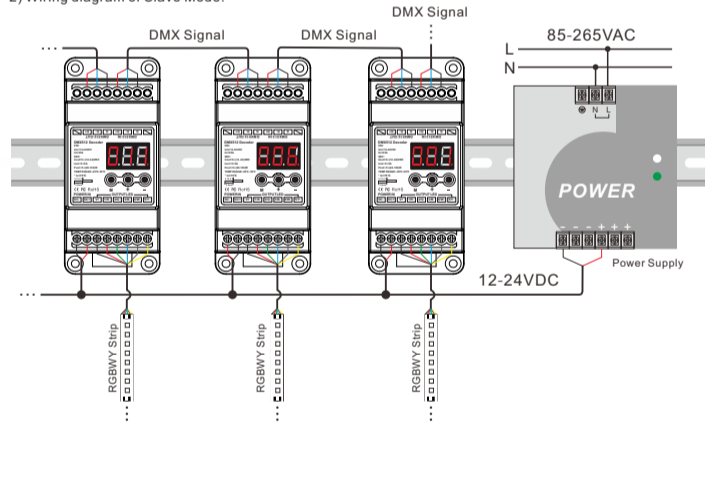


Mode Speed level 4

Speed for Program 520 – 589 (Color Changing Fading Mode) for one step and not for the whole program:
0=0,5 sec. | 1=1 sec. | 2=2 sec. | 3=3 sec. | 4=5 sec. | 5=10 sec. | 6=15 sec. | 7=30 sec. | 8=60 sec. | 9=120 sec.
Speed for Program 590 - 599 (one step and not for the whole program):
0=0,02 sec. | 1=0,04 sec. | 2=0,1 sec. | 3=0,2 sec. | 4=0,5 sec. | 5=1 sec. | 6=2 sec. | 7=5 sec. | 8=10 sec. | 9=15 sec.

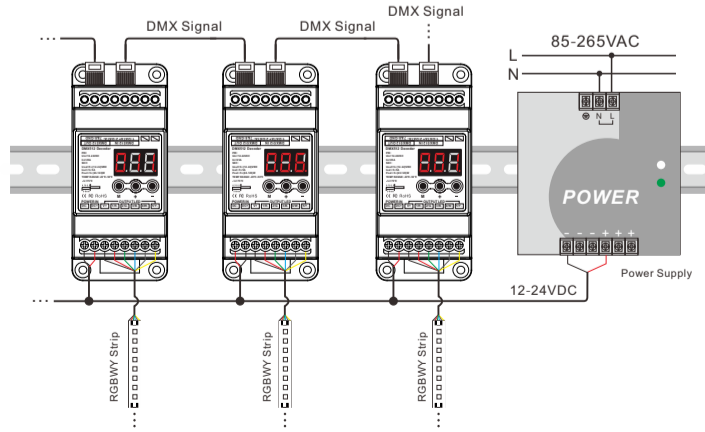
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2) Wiring diagram of Slave Mode:



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2) Wiring diagram of Slave Mode:



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.

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