

3 Channel Constant Voltage DMX512 & RDM Decoder

Model No.: D3-P

RDM/DIP switch/Logarithmic dimming/Multiple protection



CE RoHS LVD

Features

- Comply with the DMX512 standard protocols.
- Set DMX decode start address via DIP switch.
- RDM function can realize intercommunication between DMX master and decoder.
For example, DMX decoder address can be set by DMX master console.
- Green terminal DMX signal input & output.
- Over-heat / Short circuit protection, recover automatically.

Technical Parameters

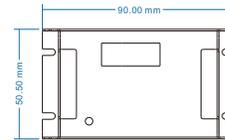
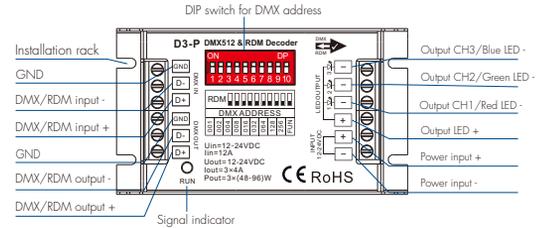
Input and Output	
Input voltage	12-24VDC
Input current	12A
Output voltage	3 x [12-24]VDC
Output current	3CH,4A/CH
Output power	3 x [48-96]W
Output type	Constant voltage

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

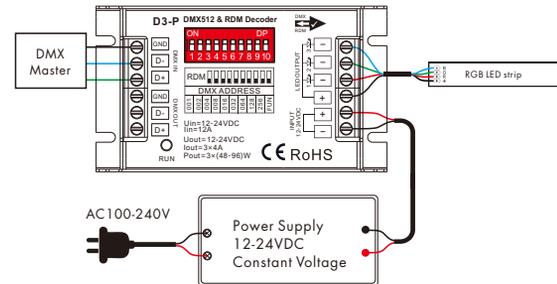
Safety and EMC	
EMC standard [EMC]	EN55032:2015,
	EN61000-3-2:2014,
	EN61000-3-2:2013,
	EN55024 :2010/A1:2015
Safety standard[LVD]	EN 61347-1:2015 EN 61347-2-11:2015
Certification	CE,EMC,LVD

Warranty and Protection	
Warranty	5 years
Protection	Reverse polarity
	Over-heat
	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.

DIP Switch



RDM Mode: The DIP switch 1-10 are all OFF.



DMX Mode: FUN=OFF (the 10th DIP switch = OFF)
Setting DMX addresses with DIP switch 1-9.



Self-testing Mode: FUN=ON (the 10th DIP switch = ON)
Setting self-testing mode with DIP switch 1-9.

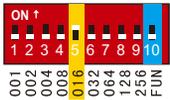
RDM Mode

When change DIP switch 1-10 to OFF, the defaulted DMX start decode address become 1, then DMX start decode address can be set by DMX/RDM console.

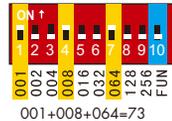
DMX Mode

DMX start decode address value = the total value of (1-9), to get the place value when "on" position, otherwise will be 0.

E.g. 1: Set start address to 16.



E.g. 2: Set start address to 73.



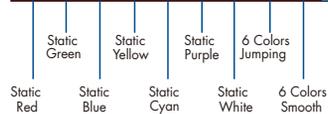
$$001+008+064=73$$

E.g. 3: Set start address to 170.



$$002+008+032+128=170$$

Self-testing Mode



1. For dynamic effects (DIP Switch 8,9 = on) : DIP switch 1-7 is used to get 7 speed levels. (7=on, the fastest level)
2. When several DIP switches are on, subjected to the highest switch value.
As the figure above shows, the effect will be 6 colors smooth at 7 speed level.

DMX Dimming

Each D3-P DMX decoder occupy 3 DMX address when connecting the DMX console.
For example, the defaulted start address is 1, their corresponding relationship in the form:

DMX Console	DMX Decoder Output
CH1 0-255	CH1 PWM 0-100% (LED R)
CH2 0-255	CH2 PWM 0-100% (LED G)
CH3 0-255	CH3 PWM 0-100% (LED B)

Dimming curve

