D4-P, D4-E

DMX512

4 Channel Constant Voltage DMX512 & RDM Decoder

- 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.
- 1/2/4 DMX channel output selectable.
- 16bit (65536 levels) /8bit (256 levels) grey level selectable.
- PWM frequency 250/500/1000/2000/4000/8000/16000/32000Hz selectable.
- Logarithmic or linear dimming curve selectable.
- Over-heat / Over-load / Short circuit protection, recover automatically.
- D4-P have Green terminal DMX signal ports, D4-E have RJ-45 DMX signal ports.



D4-P D4-E

FC CE RoHS

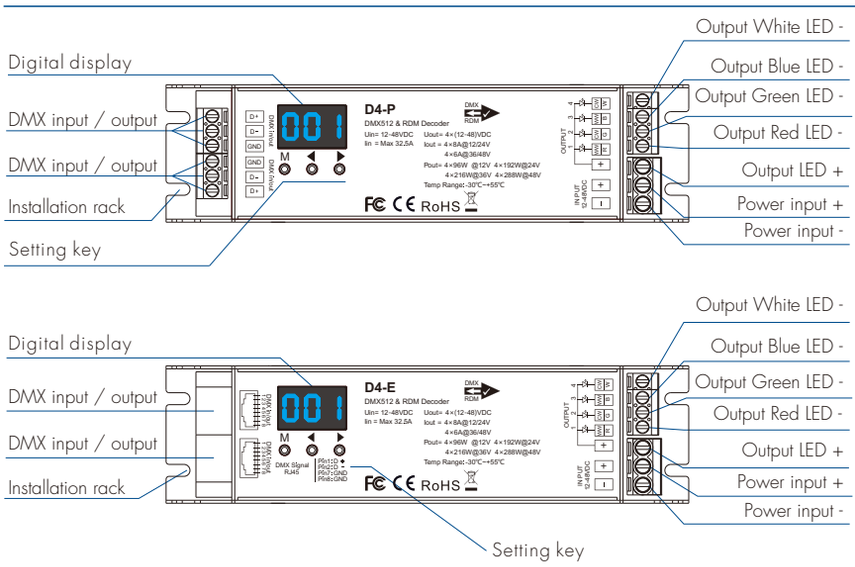
Technical Parameters

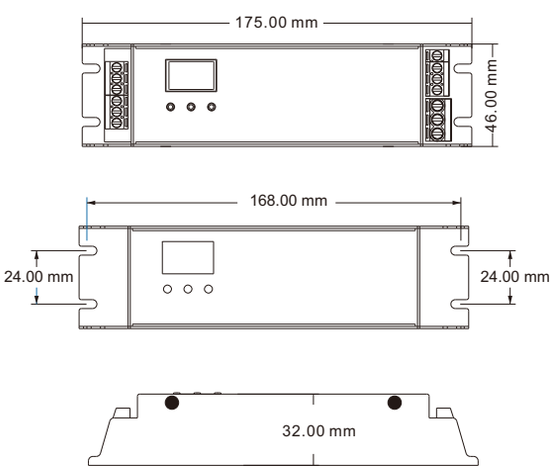
Input and Output	
Input voltage	12-48VDC
Input current	32.5A
Output voltage	4 x (12-48)VDC
Output current	4x8A@12/24V 4x6A@36/48V
Output power	4x96W @12V 4x192W@24V 4x216W@36V 4x288W@48V
Output type	Constant voltage

Safety and EMC	
EMC standard	EN IEC 55015/EN IEC 61547
Safety standard	EN 61347-1/-2 EN 62493
Certification	CE RoHS FCC
Warranty	
Warranty	5 years

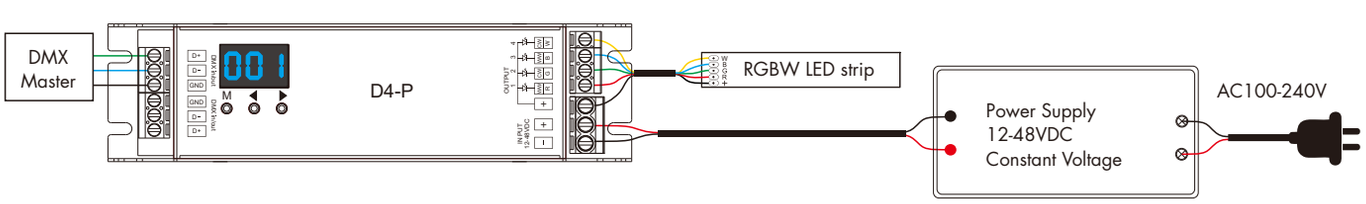
Environment	
Operation temperature	Ta: -30 °C ~ +55 °C
Case temperature (Max.)	Ta: +75 °C
IP rating	IP20
Package	
Size	L178 x W50 x H38mm
Gross weight	0.295kg

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.
3. When display OLA, overload alarm. When display OHA, overheat alarm.

Operation

System parameter setting

- Long press M and ◀ key in the same time for 2s, prepare for setup system parameter: decode mode, grey level, output PWM frequence, output brightness curve, default output level, automatic blank screen. short press M key to switch six item.
- Decode mode: short press ◀ or ▶ key to switch 1/2/4 channel decode mode("d-1","d-2" or "d-4"). When set as 1 channel decode, the decoder occupy only 1 DMX address, and four channel output the same brightness of this DMX address.
- Grey level: short press ◀ or ▶ key to switch 8bit("b08") or 16 bit("b16"). choose 16 bit if the DMX master support 16 bit.
- Output PWM frequency: short press ◀ or ▶ key to switch 250Hz("F02"), 500Hz("F05"), 1000Hz("F10"), 2000Hz("F20"), 4000Hz("F40"), 8000Hz("F80"), 16000Hz("F16")or 32000Hz("F32").
  Higher PWM frequency, will cause lower output current, higher power noise, but more suitable for camera(No flickers for video).
  When PWM frequency > 8000Hz, it is necessary to reduce the output current per channel
  (4x5A@12-24V and 4x4A@36-48V at 16000Hz; 4x4A@12-24V and 4x3A@36-48V at 32000Hz)
- Output brightness curve: short press ◀ or ▶ key to switch linear curve("C-L") or logarithmic curve("C-E").
- Default output level: set output level when no DMX input signal. short press ◀ or ▶ key to switch maintain DMX output("d- -") or output default level ("d00" to "dFF", 0-100%), long press ◀ or ▶ key to change output default level.
- 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 001~512, enter DMX mode.
- Press ◀ or ▶ key to change DMX decode start address(001~512), long press for fast adjustment.
- If there is a DMX signal input, will enter DMX mode automatically.
- DMX Dimming: Each D4-P/D4-E DMX decoder occupy 4 DMX address when connecting the DMX console. For example, the defaulted start address is 1, their corresponding relationship in the form:



DMX mode
(001~512)

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)
CH4 0-255	CH4 PWM 0-100% (LED W)



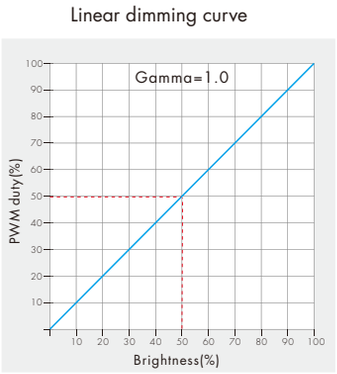
Self-test mode
(L-1~L-5)

Self-test mode

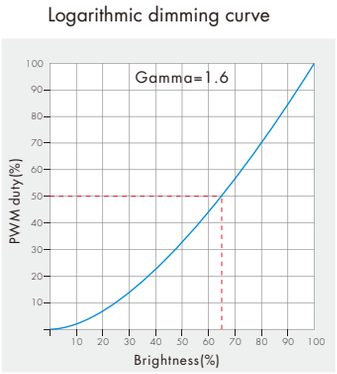
- Enter self-test mode only when DMX signal is disconnected or lost.
- Short press M key, when display L-1~L-5, enter self-test mode.
- Press ◀ or ▶ key to change mode number(L-1~L-5).
- Self-test mode include four channel light up separately or synchronously.

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. Wrong connection of R/G/B/W wires. 2. DMX decode address error.	1. Reconnect R/G/B/W wires. 2. Set corrrect 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.

FCC Statement:
This device complies with Part 15 of the FCC Rules. operation is subject to the following two conditions:
(1)this device may not cause harmful interference, and
(2)this device must accept any interference received, including interference that may cause undesired operation.
IC Statement: This Class B digital apparatus complies with Canadian ICES-003.
(Cet appareil numérique de la Classe B conforme à la norme NMB-003 du Canada).