D1C-E

DMX512

Single Channel Constant Current DMX512 & RDM Decoder

- DMX signal communication using RJ45 connector, 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.
- Output current range 250-3000mA selectable.
- 16bit (65536 levels) /8bit (256 levels) grey level selectable.
- PWM frequency 250/500/1000/2000/4000/8000/16000Hz selectable.
- Output dimming curve gamma value 0.1-9.9 selectable.
- Stand-alone dynamic mode and dimmer mode selectable, which be controlled by buttons with built-in programs, instead of DMX signal.

CE RoHS

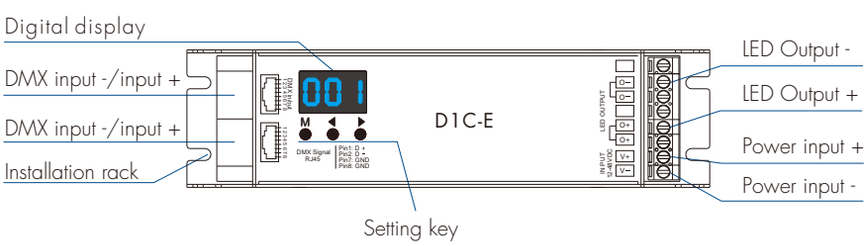
Technical Parameters

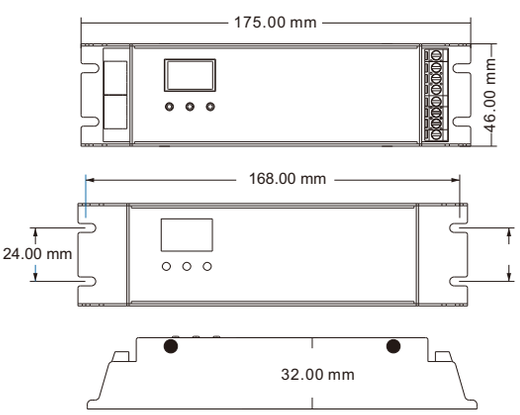
Input and Output	
Input voltage	12-48VDC
Output voltage	3-45VDC
Output current	250-3000mA
Output power	0.75-135W
Output type	Constant current

Warranty and Protection	
Warranty	5 years
Protection	Reverse polarity
Environment	
Operation temperature	Ta: -20°C ~ +50°C
Case temperature (Max.)	Tc: +75 °C
IP rating	IP20

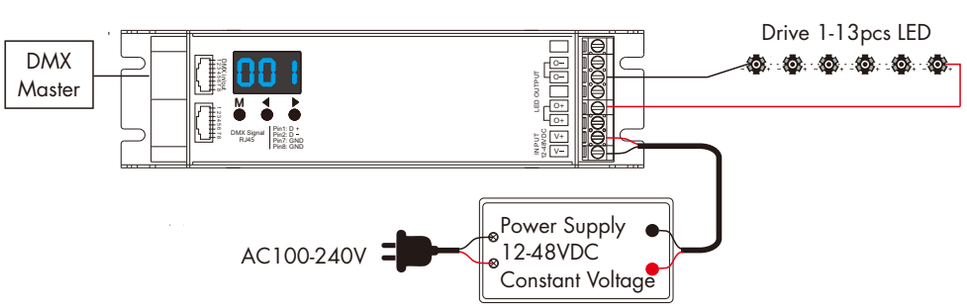
Safety and EMC	
EMC standard	EN IEC 55015/ EN IEC 61547 ETSI EN 301 489-1/-3
Safety standard	EN 61347-1/-2
Certification	CE RoHs
Package	
Size	L175 x W54 x H27mm
Gross weight	0.129kg

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. The decoder could auto check and output a proper voltage according to its LED quantities.
4. The decoder works on buck mode, the voltage of power supply should be greater than the total voltage of the seried LEDs.

Operation

1.System parameter setting

- Long press M and ◀ key in the same time for 2s, prepare for setup system parameter: output PWM frequence, output brightness curve, grey level, default output level, automatic blank screen. short press M key to switch five item.
- Output PWM frequency: short press ◀ or ▶ key to switch 250Hz("F02"), 500Hz("F05"), 1000Hz("F10"), 2000Hz("F20"), 4000Hz("F40"), 8000Hz("F80"), 16000Hz("F16").
- Output brightness curve: short press ◀ or ▶ key to switch the gamma value 0.1-9.9 ("c01-c99"), long press for fast adjustment.
- Grey level: short press ◀ or ▶ key to switch 8bit("b08") or 16 bit("b16"). choose 16 bit if the DMX master support 16 bit.
- 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.

Note: In addition to manual button operation settings, the above system parameters can also be set by RDM function.

2. Output current setting

- Select the correct current output before connecting the LED load.
- In Stand-alone dimmer mode, long press M and ▶ key in the same time for 2s, prepare for setup output current.
- Press ◀ or ▶ k key to set the output current value from 250-3000mA ("025~300") with 50mA interval for each step, total 46 steps.
- Long press M key for 2s, or timeout 10s, quit setting.

3.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 D1C-E DMX decoder occupy 1 DMX address when connecting the DMX console.

DMX mode
(001~512)

4.Stand-alone dynamic mode

- Enter stand-alone dynamic mode only when DMX signal is disconnected or lost.
- Short press M key, when display P01~P03, enter stand-alone dynamic mode, see table 1.
- Press ◀ or ▶ key to change dynamic mode number(P01~P03).
- Each mode can adjust speed and brightness.
  Long press M key for 2s, prepare for setup mode speed and brightness.
  Short press M key to switch two item.
  Press ◀ or ▶ key to setup value of each item.
  Mode speed: 1-10 level speed(S-1, S-9, S-F).
  Mode brightness: 1-10 level brightness(b-1, b-9, b-F).
  Long press M key for 2s, or timeout 10s, quit setting.

Dynamic mode list

No.	Name
P01	white fade in and fade out
P02	white jump
P03	white flash

(Table 1)

Speed
(8 level)

Brightness
(10 level,100%)

5.Stand-alone dimmer mode

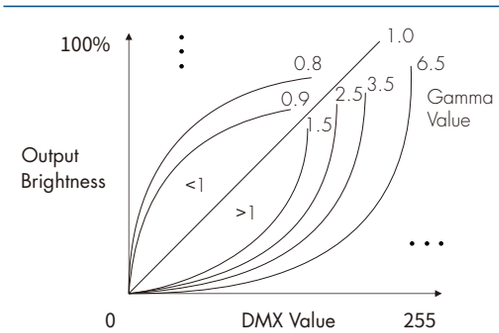
- Enter stand-alone dimmer mode only when DMX signal is disconnected or lost.
- Short press M key, when display L-1~L-8, enter stand-alone dimmer mode.
- Press ◀ or ▶ key to change dimmer mode number(L-1~L-8).
- Each dimmer mode can adjust brightness independently.
  Long press M key for 2s, prepare for setup brightness(b00~bFF).
  Press ◀ or ▶ key to adjust brightness value.
  Short press M key, or timeout 10s, quit setting.

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

6.Restore factory default parameter

- Long press ◀ and ▶ key for 2s, restore factory default parameter, display"RES".
- Factory default parameter: DMX decode mode, DMX decode start address is 1, output current 1000mA, 8 bit grey level, 4000Hz PWM frequence output, output curve Gamma 1.6, output 100% level when no DMX input, dimmer mode number is 1, disable automatic blank screen.

Dimming Curve Setting



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 brightness	1. DMX decode address error.	1. Set corrrect decode address.