M4-E、M4-C
DMX/RDM constant voltage decoder

Product Introduction

- Standard DMX/RDM interfaces; Set address via the LCD screen and buttons;
- RDM protocol; Browse and set parameters, change DMX address, and recognize devices via a RDM master;
- DMX mode and customized mode can be switched;
- PWM frequency options: 300/600/1200/1500/1800/2400/3600/7200/10800/14400/18000Hz (default is 1800Hz);
- 16bit (65536 levels)/8bit (256 levels) gray scale optional;
- Two dimming mode options: standard and smooth dimming;
- Set 1/2/3/4 DMX channel output (default is 4 channel output);
- Provide 10 lighting effects, 8 levels of dynamic mode speed, 255 brightness levels;
- Set screen timeout, LCD screen always on, and screen turning off after 30s of inactivity;
- Short circuit, over-temperature, over-current protection and auto recovery;
- M4-C has green terminal DMX interfaces, M4-E has RJ-45 DMX interfaces.

Product Parameters

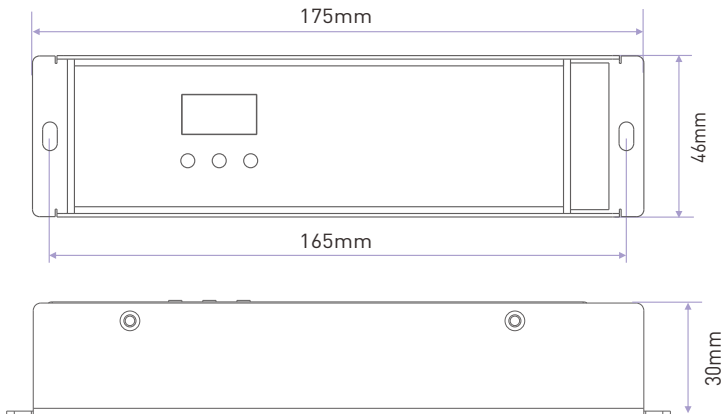| Model	M4-E	M4-C
Input Signal	DMX512, RDM	DMX512, RDM
Input Voltage	12-48V ⎓	12-48V ⎓
Input Voltage	Max.8A/CH Max.24A(4CH)	Max.8A/CH Max.24A(4CH)
Output Power	0-96W...384W/CH Max.1152W(4CH)	0-96W...384W/CH Max.1152W(4CH)
Dimming Range	0-100%	0-100%
DMX Signal Port	RJ45	Green termina
Working Temp.	-30°C-55°C	-30°C-55°C
Dimensions	L175×W46×H30mm	L175×W46×H30mm
Package Size	L187×W52×H36mm	L187×W52×H36mm
Weight(G.W.)	325g±5g	325g±5g
Protection	Short circuit, over temperature, over current protection, auto recovery.	

Load parameters

Current/power Frequency / Voltage	300Hz (F=0)	600Hz (F=1)	1.2kHz (F=2)	1.5kHz (F=3)	1.8kHz (F=4)	2.4kHz (F=5)
12V	6A×4CH/288W 8A×3CH/288W	6A×4CH/288W 8A×3CH/288W	6A×4CH/288W 8A×3CH/288W	6A×4CH/288W 8A×3CH/288W	6A×4CH/288W	6A×4CH/288W
24V	6A×4CH/576W 8A×3CH/576W	6A×4CH/576W 8A×3CH/576W	6A×4CH/576W 8A×3CH/576W	6A×4CH/576W 8A×3CH/576W	6A×4CH/576W	6A×4CH/576W
36V	6A×4CH/864W	6A×4CH/864W	6A×4CH/864W	6A×4CH/864W	6A×4CH/864W	5A×4CH/720W
48V	6A×4CH/1152W	6A×4CH/1152W	6A×4CH/1152W	6A×4CH/1152W	6A×4CH/1152W	5A×4CH/960W

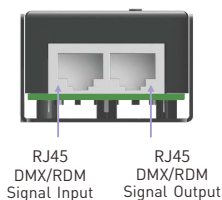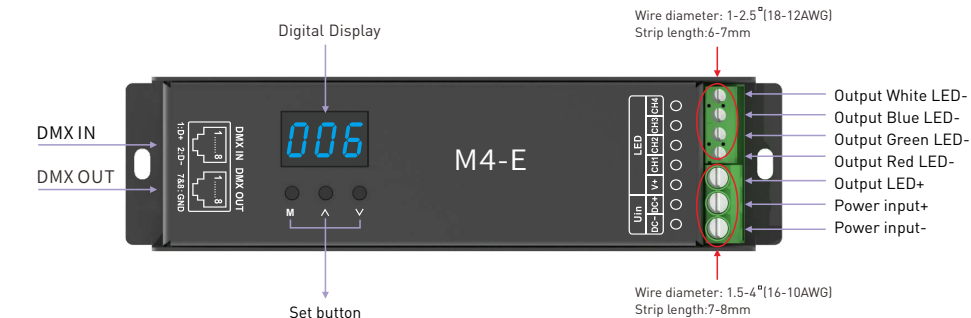| Current/power Frequency / Voltage	3.6kHz (F=6)	7.2kHz (F=7)	10.8kHz (F=8)	14.4kHz (F=9)	18kHz (F=A)	
12V	6A×4CH/288W	4A×4CH/192W	3.5A×4CH/168W	3A×4CH/144W	2.5A×4CH/120W	
24V	5A×4CH/480W	3.5A×4CH/336W	3A×4CH/288W	2.5A×4CH/240W	2.5A×4CH/240W	/
36V	4.5A×4CH/648W	3A×4CH/432W	2.5A×4CH/360W	2.5A×4CH/360W	2A×4CH/288W	
48V	4A×4CH/768W	3A×4CH/576W	2.5A×4CH/480W	2.5A×4CH/480W	2A×4CH/384W	

Note: The load capacity of all the above PWM frequency gears has been tested at high temperature (55℃) for 4 hours.
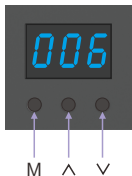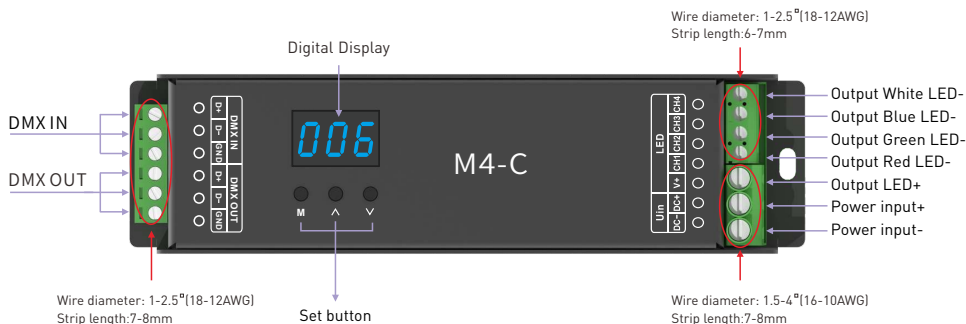
Product Size

Unit: mm

175mm

165mm

46mm

30mm

Main Component Description

Digital Display

DMX IN

DMX OUT

M4-E

Set button

Wire diameter: 1-2.5^a(18-12AWG)
Strip length:6-7mm

Output White LED-
Output Blue LED-
Output Green LED-
Output Red LED-
Output LED+
Power input+
Power input-

Wire diameter: 1.5-4^a(16-10AWG)
Strip length:7-8mm

RJ45 DMX/RDM Signal Input
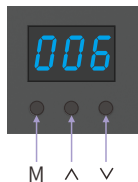
RJ45 DMX/RDM Signal Output

Digital Display:

M ∧ ∨

- Access configuration: Long press the M button for more than 2s.
- Adjust Value: Short press ∧ or ∨ button.
- Exit Menu: Long press M button for 2s again to save the setting, then exit the menu.
- Long press M, ∧ and ∨ button simultaneously for 2s. When the screen displays RES, it has been reset to factory defaults.
- The display locks automatically after 15 seconds of inactivity.

Digital Display

DMX IN

DMX OUT

M4-C

Set button

Wire diameter: 1-2.5^a(18-12AWG)
Strip length:6-7mm

Output White LED-
Output Blue LED-
Output Green LED-
Output Red LED-
Output LED+
Power input+
Power input-

Wire diameter: 1-2.5^a(18-12AWG)
Strip length:7-8mm

Wire diameter: 1.5-4^a(16-10AWG)
Strip length:7-8mm

Digital Display:

M ∧ ∨

- Access configuration: Long press the M button for more than 2s.
- Adjust Value: Short press ∧ or ∨ button.
- Exit Menu: Long press M button for 2s again to save the setting, then exit the menu.
- Long press M, ∧ and ∨ button simultaneously for 2s. When the screen displays RES, it has been reset to factory defaults.
- The display locks automatically after 15 seconds of inactivity.

OLED Display Interface

DMX decoder mode

Long press M and ∧ button simultaneously. When the screen displays "L-1", it enters the DMX decoder mode. Long press M button for 2s to enter the menu.

1. DMX address settings

Press ∧ or ∨ button to set the DMX address.
DMX address range: 001~512
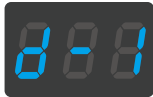
2. Resolution

Short press M button to switch the menu to "r".
Press ∧ or ∨ button to select resolution and the third value on the screen will display 1 or 2.

Options: r-1 (8bit)
        r-2 (16bit)

3. PWM frequency

Short press M button to switch the menu to "F".
Press ∧ or ∨ button to select PWM frequency and the third value on the screen will display H or L.

Options: F-4 (1800Hz)   F-0 (300Hz)   F-1 (600Hz)   F-2 (1200Hz)
        F-3 (1500Hz)   F-5 (2400Hz)   F-6 (3600Hz)   F-7 (7200Hz)
        F-8 (10800Hz)   F-9 (14400Hz)   F-A (18000Hz)

4. Dimming mode

Short press M button to switch the menu to "d".
Press ∧ or ∨ button to select the dimming mode and the third value on the screen will display 1 or 2.

Options: d-1 (Smooth dimming)
        d-2 (Standard dimming)

5. DMX channels

Short press M button to switch the menu to "C".
Press ∧ or ∨ button to select the channels and the third value on the screen will display 1, 2, 3 or 4.

Options: C-4 (4 channel output occupies corresponding 4 DMX addresses)
        C-1 (4 channel output occupies DMX address 1)
        C-2 (1 and 3 channel output occupy DMX address 1, 2 and 4 channel output occupy DMX address 2)
        C-3 (1 channel output occupies DMX address 1, 2 channel output occupies DMX address 2, 3 and 4 channel output occupy DMX address 3)

6. Screen timeout

Short press M button to switch the menu to "n".
Press ∧ or ∨ button to select screen timeout and the third value on the screen will display 1 or 2.

Options: n-1 (Screen stays on)
        n-2 (Screen turns off after 30seconds of inactivity)

Customized mode

Long press M and ∨ button simultaneously. When the screen displays "L-2", it enters the Customized mode. Long press M button for 2s to enter the menu.

1. Lighting effects

e.g. E-1 (no lighting effect)

e.g. E-A (7-color gradient)

Short press M button to switch the menu to "E".
Press ∧ or ∨ button to select the lighting effect and the third value on the screen will display 1, 2, 3, 4, 5, 6, 7, 8, 9 or A.
Options:

E-1 (no lighting effect)   E-6 (Purple)
E-2 (Red)   E-7 (Cyan)
E-3 (Green)   E-8 (White)
E-4 (Blue)   E-9 (7-color jumping)
E-5 (Yellow)   E-A (7-color gradient)

2. Color-changing speed

Short press M button to switch the menu to "S".
Press ∧ or ∨ button to select speed and the third value on the screen will display 1, 2, 3, 4, 5, 6, 7 or 8.
Default: S-5
Options: S-1 / S-2   ······   S-7 / S-8

Speed levels, speed increases one by one

3. Brightness

Short press M button to switch the menu to "B".
Press ∧ or ∨ button to select the brightness level and the third value on the screen will display 1, 2, 3, 4, 5, 6, 7 or 8.
B00-BFF, 255 levels, default maximum of 255
Options: B00 / B01   ······   BFF

Brightness levels, brightness increases one by one
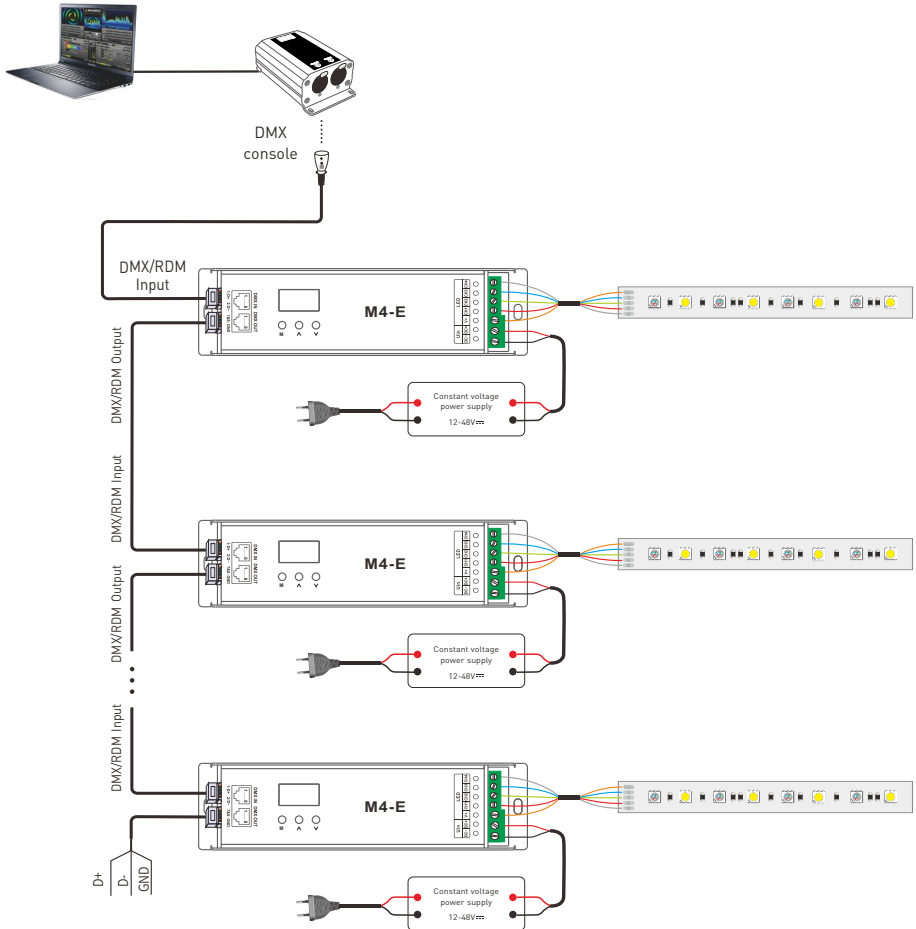
4. Screen timeout

Short press M button to switch the menu to "n".
Press ∧ or ∨ button to select screen timeout and the third value on the screen will display 1 or 2.
Options: n-1 (Screen stays on)
            n-2 (Screen turns off after 30 seconds of inactivity)

M4-E Wiring Diagram

* When more than 32 DMX decoders are connected, DMX signal amplifiers are needed and signal amplification should not be more than 5 times continuously. If you need to modify the parameter settings of connected DMX/RDM decoders that exceed 32, you can add 1 RDM signal amplifier. Or you can add 1-5 DMX signal amplifiers after completing the parameter settings.

* If the recoil effect occurs because of long signal line or poor quality wires, please try to connect a 0.25W 90-120Ω terminal resistor at the end of each line.

M4-E Wiring Diagram
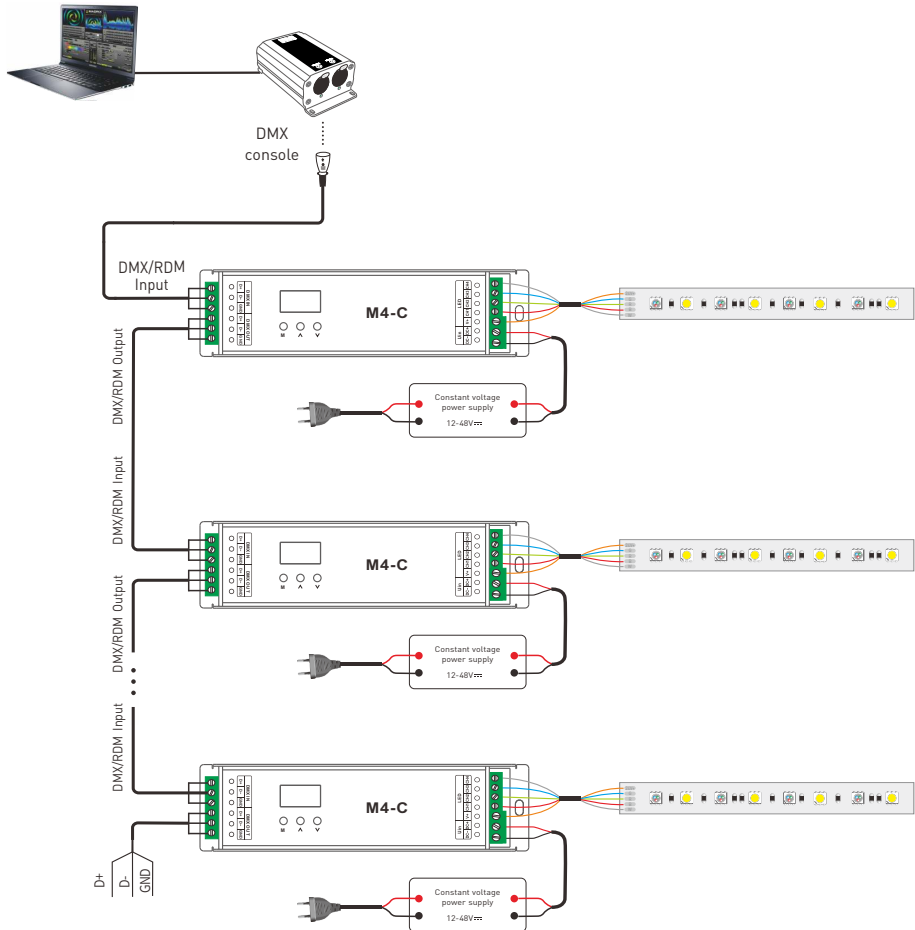
※ When more than 32 DMX decoders are connected, DMX signal amplifiers are needed and signal amplification should not be more than 5 times continuously. If you need to modify the parameter settings of connected DMX/RDM decoders that exceed 32, you can add 1 RDM signal amplifier. Or you can add 1-5 DMX signal amplifiers after completing the parameter settings.

※ If the recoil effect occurs because of long signal line or poor quality wires, please try to connect a 0.25W 90-120Ω terminal resistor at the end of each line.

Attentions

- This product must be installed and adjusted by a qualified professional.
- LTECH products are and not lightningproof non-waterproof (special models excepted). Please avoid the sun and rain. When installed outdoors, please ensure they are mounted in a water proof enclosure or in an area equipped with lightning protection devices.
- Good heat dissipation will extend the life the product. Please install the product in a environment with good ventilation.
- When you install this product, please avoid being near a large area of metal objects or stacking them to prevent signal interference.
- Please keep the product away from a intense magnetic field, a high pressure area or a place where lightning is easy to occur.
- Please check whether the working voltage used complies with the parameter requirements of the product.
- Before you power on the product, please make sure all the wiring is correct in case of incorrect connection that may cause a short circuit and damage the components, or trigger a accident.
- If a fault occurs, please do not attempt to fix the product by yourself. If you have any question, please contact the supplier.

* This manual is subject to changes without further notice. Product functions depend on the goods. Please feel free to contact our official distributors if you have any question.

Warranty Agreement

Warranty periods from the date of delivery：5 years.

Free repair or replacement services for quality problems are provided within warranty periods.

Warranty exclusions below:

- Beyond warranty periods.
- Any artificial damage caused by high voltage, overload, or improper operations.
- Products with severe physical damage.
- Damage caused by natural disasters and force majeure.
- Warranty labels and barcodes have been damaged.
- No any contract signed by LTECH.

1. Repair or replacement provided is the only remedy for customers. LTECH is not liable for any incidental or consequential damage unless it is within the law.
2. LTECH has the right to amend or adjust the terms of this warranty, and release in written form shall prevail.