

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.	

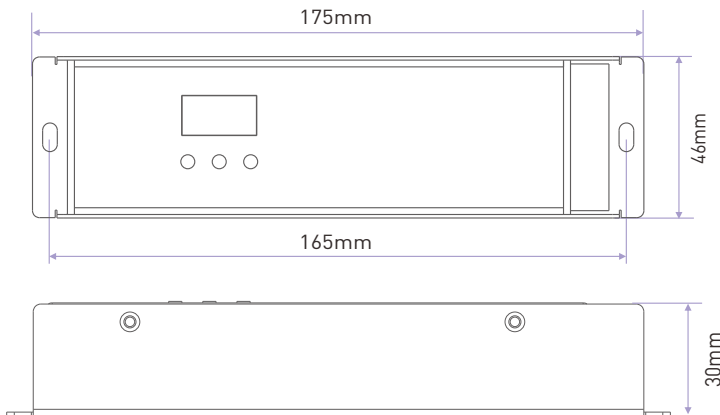
Load parameters

Current/power Voltage	Frequency	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 Voltage	Frequency	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	

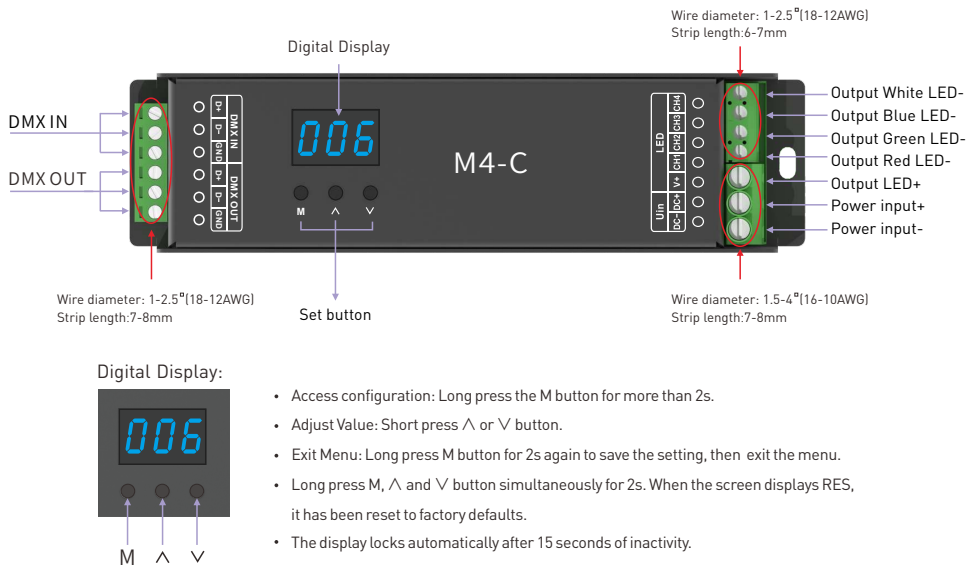
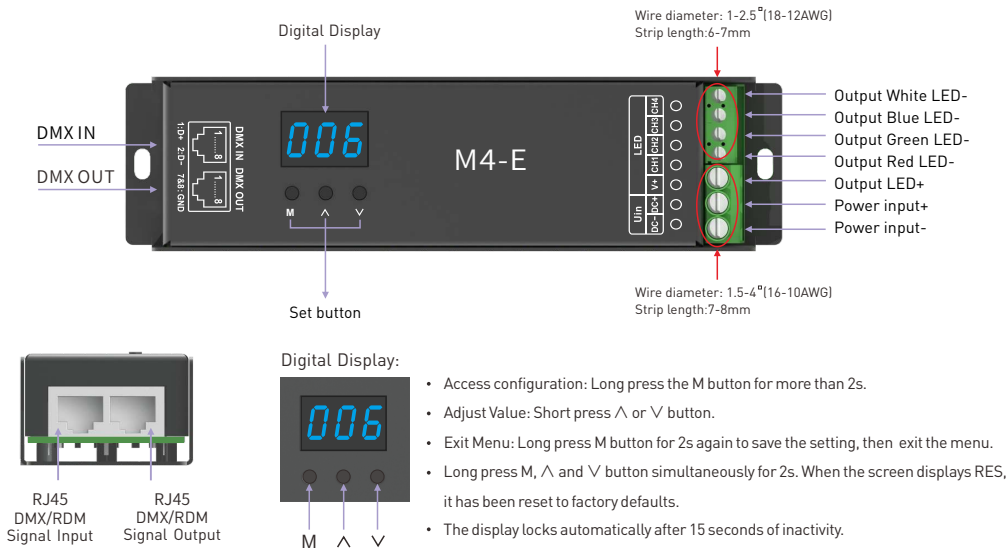
Note: The load capacity of all the above PWM frequency gears has been tested at high temperature (55°C) for 4 hours.

Product Size

Unit: mm



Main Component Description



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 V 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 V 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 V 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 V 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 V 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 V 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 V 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 V 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 V 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 V 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



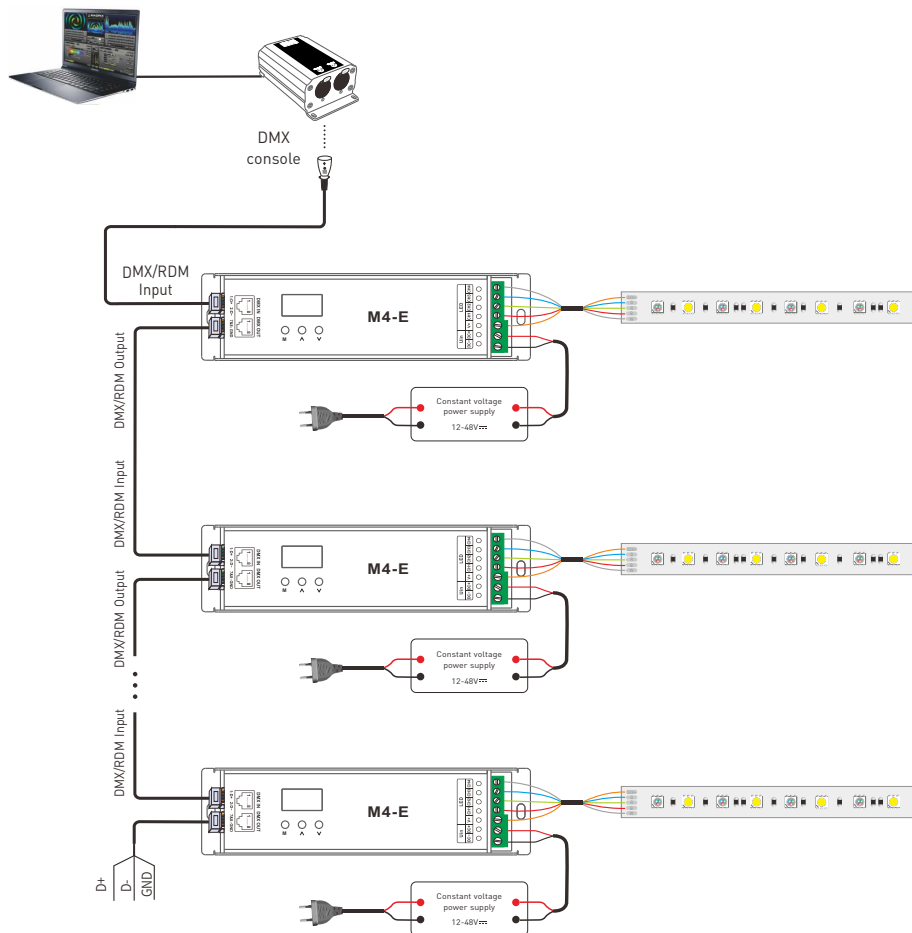
Short press M button to switch the menu to "n".

Press ^ or V 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)

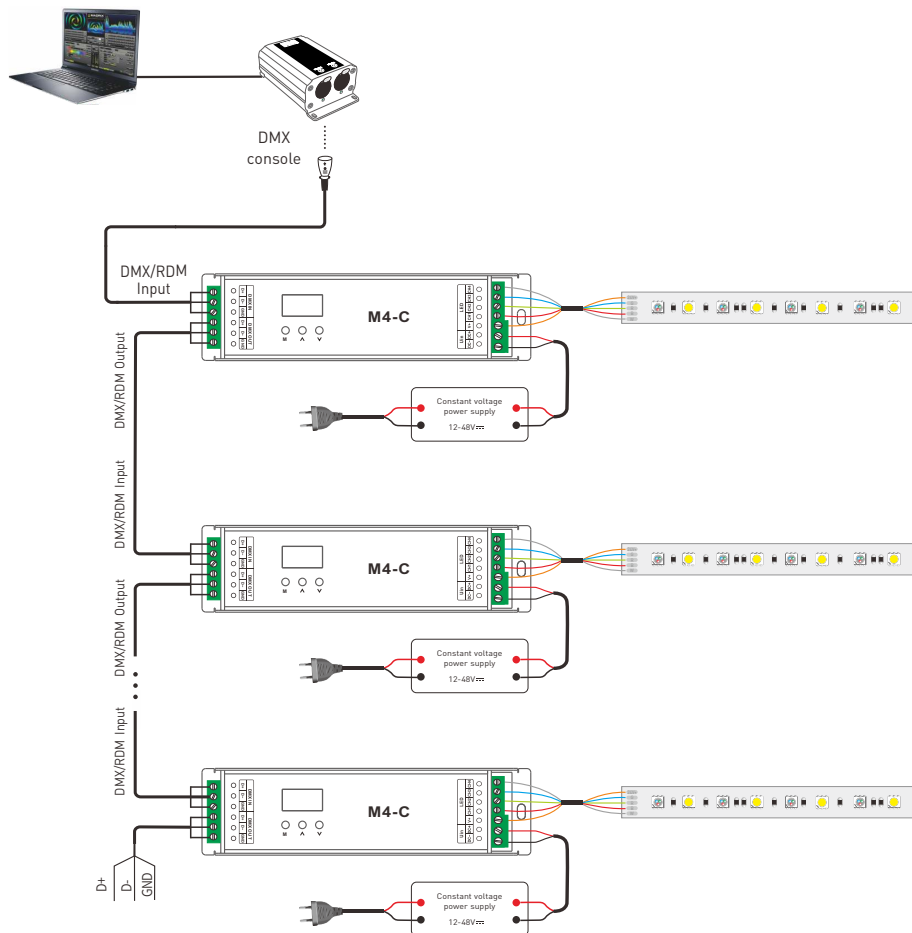
M4-E Wiring Diagram



* 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



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- * 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 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.

M4-E、M4-C
DMX/RDM恒压解码器



产品介绍

- 标准的DMX/RDM接口，使用数码管和轻触按键设置地址码，实现人机交互；
- 具有RDM远程管理协议，通过RDM主控可对其进行参数浏览与设置、DMX地址修改、设备识别等操作；
- 可切换DMX模式/自定义模式；
- 可设置300/600/1200/1500/1800/2400/3600/7200/10800/14400/18000Hz PWM频率(默认1800Hz)；
- 16bit(65536级)/8bit(256级)灰度级可选；
- 可设置选标准与平滑两种调光模式；
- 可设置1/2/3/4 DMX通道输出(默认4通道输出) ；
- 可设置十种灯光效果、8档动态模式速度、255个亮度等级；
- 支持屏显时间设置，数码管常亮与30s内无操作将熄灭；
- 短路、过温、过流保护，可自行恢复；
- M4-C具有绿色端子DMX信号端口，M4-E具有RJ-45 DMX信号端口。

技术参数

型号	M4-E	M4-C
输入信号	DMX512, RDM	DMX512, RDM
输入电压	12-48V $\overline{\text{---}}$	12-48V $\overline{\text{---}}$
输出电流	Max.8A/CH Max.24A(4CH)	Max.8A/CH Max.24A(4CH)
输出功率	0-96W $\cdots$ 384W/CH Max.1152W(4CH)	0-96W $\cdots$ 384W/CH Max.1152W(4CH)
调光范围	0-100%	0-100%
DMX信号接口	RJ45	绿色端子
工作温度	-30°C-55°C	-30°C-55°C
产品尺寸	L175×W46×H30mm	L175×W46×H30mm
包装尺寸	L187×W52×H36mm	L187×W52×H36mm
重量(毛重)	325克±5克	325克±5克
保护	短路、过温、过流保护，可自行恢复	短路、过温、过流保护，可自行恢复

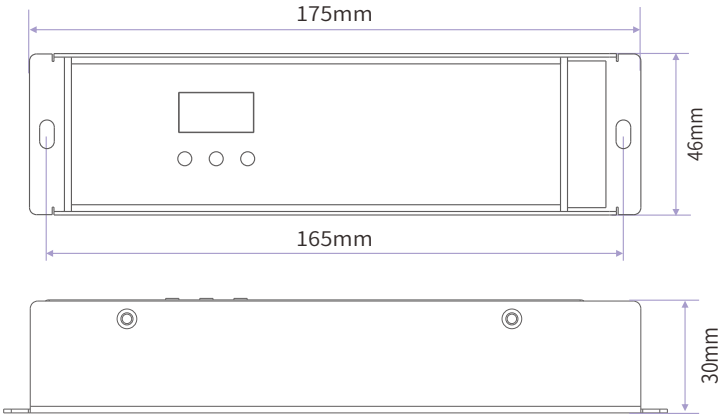
带载参数

电流/功率 电压	频率	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
电流/功率 电压	频率	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	

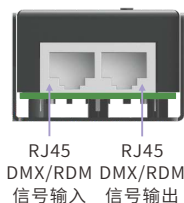
注：以上所有PWM频率档位带载能力均经过高温（55℃）老化4小时测试。

产品尺寸

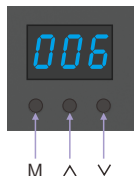
单位：mm



产品部件图



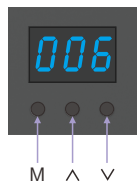
地址数码管：



- 进入配置：长按M键2S以上
- 调整数值：短按▲或▼键
- 退出菜单：再次长按M键2秒，保存配置并退出
- 恢复出厂：同时长按M、▲、▼键2秒后显示RES，即表示已恢复到出厂设置
- 数码管无操作15秒，进入锁定状态



地址数码管：



- 进入配置：长按M键2S以上
- 调整数值：短按▲或▼键
- 退出菜单：再次长按M键2秒，保存配置并退出
- 恢复出厂：同时长按M、▲、▼键2秒后显示RES，即表示已恢复到出厂设置
- 数码管无操作15秒，进入锁定状态

地址数码管界面图

DMX模式



同时长按M和∧键，数码管显示“L-1”时，进入DMX模式
长按M键2秒即可进入菜单

1. DMX地址设置



按∧或∨键进行选择，进行DMX地址设置
范围：1~512

2. 分辨率



短按M键，将菜单切换到“r”
按∧或∨键进行选择，第三个数码管显示1或2
可选项：**r-1 (8bit)**
r-2 (16bit)

3. PWM频率



短按M键，将菜单切换到“F”
按∧或∨键进行选择，第三个数码管显示H或L
可选项：**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. 调光模式



短按M键，将菜单切换到“d”
按∧或∨键进行选择，第三个数码管显示1或2
可选项：**d-1 (平滑)**
d-2 (标准)

5. 通道



短按M键，将菜单切换到“C”
按∧或∨键进行选择，第三个数码管显示1~4
可选项：**C-4 (4路输出分别为对应通道)**
C-1 (4路输出均为通道1)
C-2 (1、3路输出均为通道1, 2、4路输出均为通道2)
C-3 (1路输出为通道1, 2路输出为通道2,
3路和4路输出均为通道3)

6. 屏显时间



短按M键，将菜单切换到“n”
按∧或∨键进行选择，第三个数码管显示1或2
可选项：**n-1 (数码管常亮)**
n-2 (30s内无操作将熄灭)

自定义模式



自定义模式界面

同时长按M和V键，数码管显示“L-2”时，进入自定义模式
长按M键2秒即可进入菜单

1. 灯光效果



例:E-1（灯光效果无）



例:E-A（七色渐变）

短按M键，将菜单切换到“E”

按∧或∨键进行选择，第三个数码管显示1~9或A

可选项：

E-1（无）	E-6（紫色）
E-2（红色）	E-7（青色）
E-3（绿色）	E-8（白色）
E-4（蓝色）	E-9（七色跳变）
E-5（黄色）	E-A（七色渐变）

2. 速度



短按M键，将菜单切换到“S”

按∧或∨键进行选择，第三个数码管显示1~8

默认值：**S-5**

可选项：S-1/S-2 ····· S-7/S-8

速度等级，依次递增

3. 亮度



短按M键，将菜单切换到“B”

按∧或∨键进行选择，第三个数码管显示1~8

B00-BFF,255个等级，默认最大255

可选项：B00/B01 ····· BFF

亮度等级，依次递增

4. 屏显时间



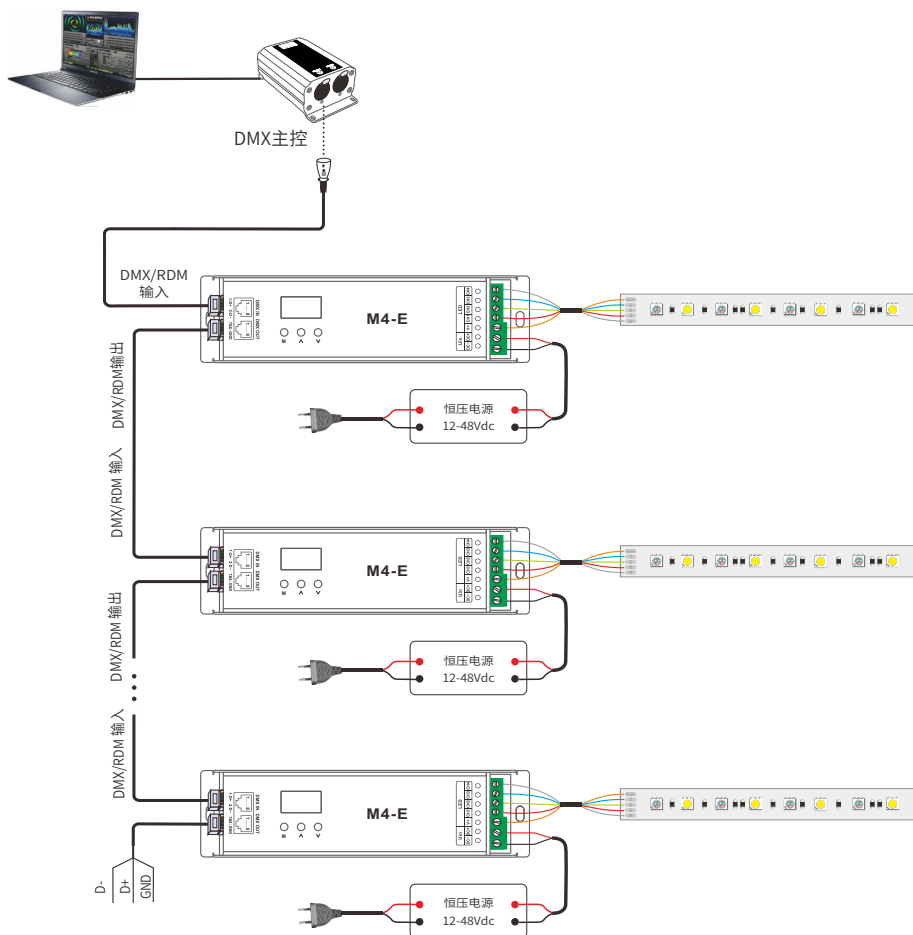
短按M键，将菜单切换到“n”

按∧或∨键进行选择，第三个数码管显示1或2

可选项：**n-1（数码管常亮）**

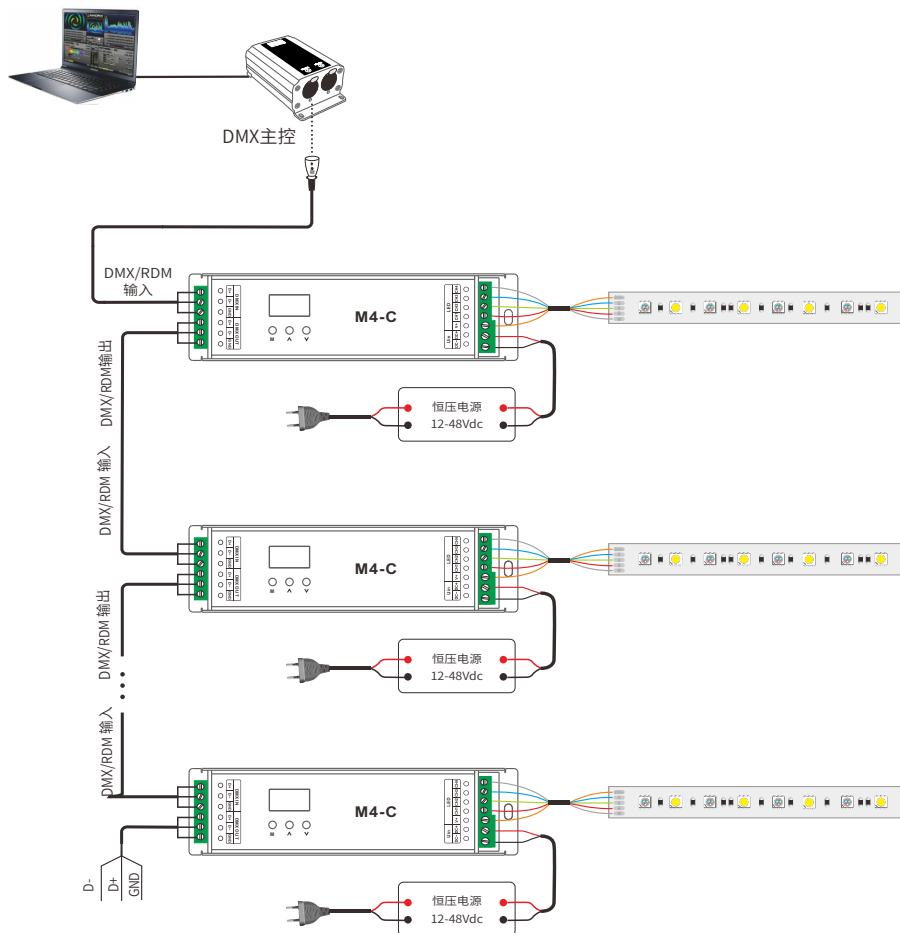
n-2（30s内无操作将熄灭）

M4-E连接示意图



- * 超过32台DMX解码器连接需加DMX信号放大器，信号放大不能连续超过5次。当超过32台DMX/RDM解码器连接时，如需修改其参数设置，可添加1台RDM信号放大器，或者将其参数设置完成后，再添加1~5台DMX信号放大器。
- * 当信号线较长或者线材质量等原因造成信号反冲效应影响使用，可以尝试在每路信号线末端连接0.25W 90-120Ω终端电阻去解决。

M4-C连接示意图



- * 超过32台DMX解码器连接需加DMX信号放大器，信号放大不能连续超过5次。当超过32台DMX/RDM解码器连接时，如需修改其参数设置，可添加1台RDM信号放大器，或者将其参数设置完成后，再添1~5台DMX信号放大器。
- * 当信号线较长或者线材质量等原因造成信号反冲效应影响使用，可以尝试在每路信号线末端连接0.25W 90-120Ω终端电阻去解决。

注意事项

- 本产品请由具有专业资格的人员进行调试安装；
- 雷特产品（专有型号除外）不能防水防雷，需避免日晒雨淋，如安装在户外，请用防水箱和防雷装置；
- 良好的散热条件会延长产品的使用寿命，请把产品安装在通风良好的环境；
- 安装时，避免靠近大面积金属物体，或堆叠摆放，以免信号干扰影响使用；
- 避免安装在雷区、强磁场和高压区域；
- 请检查使用的工作电压是否符合产品的参数要求；
- 通电调试前，确保所有接线正确且牢固，以免短路损坏部件，触发事故；
- 如果发生故障，请勿私自维修；如有疑问，请联系供应商。

* 本说明书的内容如有变更，恕不另行通知。若内容与您使用的功能有所不同，则以实物为准。如有疑问，请与供应商联系。

保修协议

- 自出厂之日起保修服务期为5年。
- 在保修服务期内出现产品质量问题雷特将给予免费修理或更换服务。

非保修条例：

属下列情况不在免费保修或更换服务范围之内：

- 已经超出保修服务期；
- 过高电压、超负载、操作不当等人为造成的损坏；
- 产品外形严重损坏或变形；
- 自然灾害以及人力不可抗拒原因造成的损坏；
- 产品保修标签和产品唯一条形码损坏；
- 无雷特签订的合同或发票凭证。

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