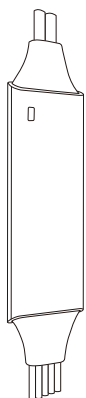


Umi Smart Wireless

LED Controller

Model: MP10 / MP20 / MP30 / MP40 (-A/T/S)



Single color to RGBW Model
Remote + Smartphone
Timing / Waterproof
Group / Scene



BLE Mesh



Remote and Phone



Full Protection



Group / Scene



Ultra Compact



Waterproof

2. LED output

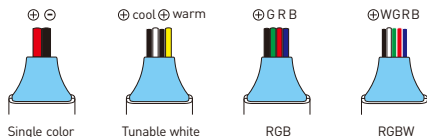
Connect constant voltage LED loads to these cables. Please make sure the LED rated voltage is same as the power supply and each channel's maximum load current is in range of the controller rated current.

Please refer to following output wiring diagram for different models:

Single color: red cable to LED ⊕ and black to ⊖.

Tunable white: black cable to LED ⊕, white to cool white ⊖ and yellow to warm white ⊖. The two black cables are connected inside the controller.

RGB and RGBW: black cable to LED ⊕, R, G, B and W cable to the relevant color ⊖.



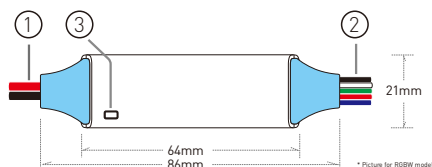
Model MP40-A and MP40-T can be configured to different application for single color, CCT, RGB or RGBW. For different application, the 1-4 channel function is mapped as following table:

MP40 Application	CH1 (white cable)	CH2 (green cable)	CH3 (red cable)	CH4 (blue cable)
Single color	White	White	White	White
CCT	Cool white	Cool white	Warm white	Warm white
RGB	No use	Green	Red	Blue
RGBW	White	Green	Red	Blue

■ Introduction

This series LED controllers are designed to drive constant voltage LED products in voltage range of DC6-24V. They can be controlled by the Umi compatible remote controllers and Smartphone app (-A version). With advanced BLE mesh technology, controllers can work synchronously with a robust connection. For option, IP68 waterproof feature is available on -S version, and timing play function is available on -T version.

■ Function & Size



1. Power supply input

The controller supply voltage range is from DC 6V to 24V. The red power cable should be connected to power positive and black to negative. (For other cable color, please refer to the labels). The LED output voltage is at same level as the power voltage, please make sure the power supply voltage is correct and the power rating is capable for the load.

3. Work status indicator

This indicator shows all working status of the controller. It displays different events as following:

Steady blue: Normal working.

Short white blink: Command received.

White blink for 3 times: Identification or confirmation.

Single yellow flash : Edge of the content.

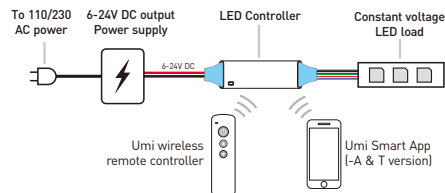
Red flash: Overload protection.

Yellow flash: Overheat protection.

Green blink: Timing play activated.

■ Wiring

Please connect the controller output to LED loads and power supply to the controller power input. The power supply voltage must be same as the LED load's rated voltage. Check all cables to be well connected and insulated before power on.



■ Operation

4. Pairing remote controllers

The controller can be paired with compatible Umi remote controller for operation. To pair or unpair the remote controller, user needs to connect and disconnect the power of controller and press specific combo keys on the remote controller. For detailed method, please refer to the remote controller's user's manual. Each controller can be paired up to total 5 remote controllers.

5. Control by smartphone

For -A & -T version controller, besides Umi wireless remote controllers, it can also be controlled by Umi Smart app. User can operate the controller from remote and/or Umi Smart app. The status and group/scene features will be synchronized from remote controller and App. Please search and download 'Umi Smart' app from Apple app store or Google play market to setup. There will also be a QR code on the controller for app download link.

■ Advanced features

6. Change model function (MP40 only)

MP40-A and MP40-T controller's function can be changed from 1 channel (single color) to 4 channels (RGB+White) by Umi Smart app.

To change the model function, please use the Umi Smart app and detect factory default devices in 'Discover nearby' function and then tap the item icon and select 'change function' menu to proceed.

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9. Change PWM frequency to avoid noise and flicker

In some LED application, noise or flicker issue may occur at the default or low PWM frequency. The controller's PWM frequency can be changed via the Umi Smart app. The frequency must be tuned with LED type and installation. To maintain more stable working and less power loss, please do not set to high frequency if no noise or flicker issues occurred.

To change the PWM frequency, please use the Umi Smart app and detect factory default devices in 'Discover nearby' function and then tap the item icon and select 'change setting' menu to proceed.

CAUTION: The controller's efficiency will drop versus increased frequency and the output current

10. Protection function

The controller has full protection function against wrong wiring, load short circuit, overload and overheat. The controller will stop working and the indicator will flash with red / yellow color to indicate the malfunction. The controller will try to recover from protection status in a short time when the working condition is good.

For protection issues, please check the situation with different indicator information:

Red flash: Check the output cables and load, make sure no short circuit and the load current is in rated range. Also the load must be constant voltage type.

Yellow flash: Check the installation environment, make sure in a rated temperature range and with good ventilation or heat dissipation condition.

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7. Waterproof (-S version)

The IP-68 waterproof feature with glue injection finish is available on -S version controllers. For overall waterproof performance, the cables must be waterproof treated separately.

Wireless signal degrade : The wireless communication ability could degrade when using at wet environment, please be aware that the wireless control distance will be shortened in such case.

8. Force turning on

The controller will restore to the last on/off status on each power on. To force turn on the controller at OFF status, user need to connect and disconnect the power of the controller for 3 times in a short time. After this operation, the controller will be rest to ON status.

9. Timing play with backup battery (-T version only)

A real time clock with backup battery is equipped with the -T version model. With this feature, user can setup timing play function with multiple repeating features of weekday or date on the Umi Smart app.

The real time clock runs by itself and will correct time once connected to the smartphone app. The built-in backup battery will reserve the timing play setting up to 48 hours after power cut. The saved timing play function will be invalid after the backup battery runs out and it will automatically recover once being connected to smartphone again.

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■ Specification

Model	MP10	MP20	MP30	MP40
Function	Single color	CCT	RGB	4-in-1
Working voltage	DC 6-24V			
Rated output current	12A	2x7A	3x5A	3x3A+5A
Wireless connection	Umi protocol based on SIG BLE Mesh			
Smartphone app support	Yes, -A & -T version			
Timing play function	Yes, with backup battery. -T version			
Communication distance	>20 meters at open area			
Output mode	PWM constant voltage			
PWM frequency	498Hz-20.9KHz			
Overload protection	Yes			
Overheat protection	Yes			
Working temperature [Ta]	-20°C~+55°C			
Waterproof	IP63 for standard version, IP68 for -S version			
Dimension	86x21x8.5mm			

App download link: (for -A & -T version)

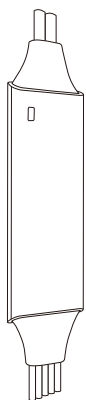


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Umi智能无线

LED控制器

型号: MP10/MP20/MP30/MP40 (-A/T/S)

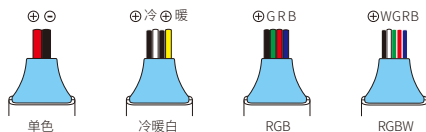


单色到 RGBW多机型
遥控器+智能手机
时控/防水选项
群组/场景



2. LED输出

连接到LED灯具。LED灯具必须为恒压型且适用于PWM驱动。对于多通道应用,各通道需为共阳极连接方式。请确保LED的额定电压与电源相同,并且每个通道的最大负载电流在控制器的额定电流范围内。下图示出各机型输出电缆的功能。



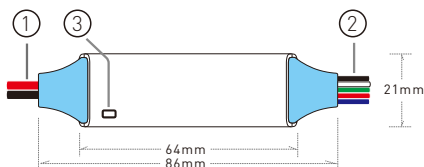
MP40机型可配置为单色、冷暖白、RGB和RGBW的各种应用,各配置的输出电缆功能如下表所示:

MP40功能	通道1 (白色电缆)	通道2 (绿色电缆)	通道3 (红色电缆)	通道4 (蓝色电缆)
单色	白	白	白	白
冷暖白	冷白	冷白	暖白	暖白
RGB	无功能	绿	红	蓝
RGBW	白	绿	红	蓝

■ 简介

该系列LED控制器用于驱动电压范围为DC 6-24V的恒压LED产品。用户可以通过Umi兼容的遥控器或智能手机App(-A或-T版本)进行控制。基于先进的蓝牙自组网技术,控制器之前可以形成稳定可靠的无线连接并实现多机同步功能。本机还具备完善的定时播放功能(-T版本),同时具备IP68防水版本可选。

■ 功能和尺寸



1. 电源输入

连接到电源。控制器可接受直流6V至24V的供电电压,请将红色电缆连接到电源正极,黑色电缆连接到电源负极。控制器的输出电压与电源输入电压相同,安装前请确保电源电压正确且功率储备满足控制器和负载的需求。

为保证安全,在通电前请先确保所有电缆均已可靠连接且绝缘良好。

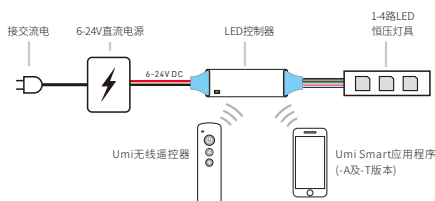
3. 工作状态指示灯

该指示灯显示控制器的工作状态,指示灯的闪烁方式与工作状态的对应关系如下:

- 蓝色常亮:正常工作
- 白色单闪:收到命令
- 白色慢闪3次:变更设置
- 黄色单闪:已调至最高或最低
- 红色闪烁:过载保护
- 黄色闪烁:过热保护
- 绿色慢闪:定时播放生效

■ 接线方法

请将控制器输出连接到合适的恒压LED灯具,并将电源连接到控制器电源输入端。电源电压必须与LED负载的额定电压相同。在通电前请检查所有电缆是否连接良好并可靠绝缘。



■ 操作方法

4. 遥控器配对

控制器可与兼容的Umi遥控器配对进行操作。要对遥控器进行配对或取消配对,用户需要连接和断开控制器的电源或者在app上激活配对模式,然后按遥控器上的特定组合键。具体方法请参考遥控器使用说明书。每个控制器最多可配对5个遥控器。

5. 通过智能手机操控

对于A版控制器,除了使用无线遥控器外,还可以同时通过Umi Smart App进行控制。

用户可以仅使用遥控器、仅使用app或者同时使用遥控器和app进行操作。控制器的工作状态、分组状态和场景模式在遥控器和app上可以实现同步。请扫描机身上的二维码或者在各大应用市场搜索“Umi Smart”来安装App。

■ 高级功能

6. 变更机型功能(仅适用于MP40)

对于MP40-A和MP40-T机型,可以通过Umi Smart app更改控制器功能,以实现从单色到RGBW的各种应用模式。

如需更改机型功能,请使用Umi Smart app并在“发现附近”功能中搜索未配置的设备,然后点击产品图标并选择“更改功能”,然后选择需变更到的机型。

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10. 更改PWM频率以避免噪音和频闪

在某些应用中,灯具可能会因PWM驱动方式出现噪音或频闪问题,本机可以通过调整PWM频率来优化这类问题。提高PWM频率后控制器的工作效率会有所下降,某些灯具可能无法正常工作。因此为保证系统工作更加稳定,请尽量设置到较低的PWM频率。

要更改PWM频率,请使用Umi Smart App在“发现附近”功能中点击未配置的设备,然后选择“更改设置”菜单进行配置。

注意:在PWM频率升高时,控制器的发热量会相应增加,在频率高于4KHz时,根据应用条件控制器的输出电流最多需降额约50%,以避免发生过热。

11. 保护功能

本产品具有完善的保护功能,可以最大程度的防止因接线错误、负载短路、过载或过热而引起的产品损坏。当发生以上异常状态时控制器将停止工作,同时指示灯会闪烁红色或黄色。当工作状态良好时,控制器会尝试恢复正常工作。

当控制器停止工作时,请检查指示灯的状态,在不同的闪烁状态下应检查相应的故障:

红色闪烁:请检查输出电缆是否短路、负载电流是否过高,并且请确保所驱动灯具为恒压驱动类型。

黄色闪烁:请检查控制器的安装环境以及负载功率,并确保控制器散热条件良好且负载功率在额定范围之内。

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7. IP68防水(仅限-S机型)

后缀为-S版本的控制器应用了注胶防水工艺,可以达到IP68的防水等级。为了确保整体的防水效果,需要对输入输出电缆做单独的防水处理。

请注意:在浸水环境下,控制器的无线通信能力会下降,无线通信距离会缩短甚至无法通信。

8. 强制开启

控制器在每次通电时会恢复到上次的开/关状态。要把通电后在‘关’的状态的控制器强制开启,用户需要在短时间内连接和断开控制器电源3次,即可将控制器强制开启。

9. 可断电保持的定时播放功能(仅限-T机型)

后缀为-T的机型配备了带后备电源的实时钟功能。用户可以通过Umi Smart应用设置可编辑日期、时间和灯具状态的定时播放功能。

本机的时钟在连接到手机后会自动校准,控制器的后备电源可以确保在断电48小时内仍准确保留定时播放设置。在断电且后备电源用尽的情况下定时播放功能会暂时失效,在控制器再次连接手机后即可自动恢复。

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■ 规格

型号	MP10	MP20	MP30	MP40
功能	单色	冷暖白	RGB	4合1
工作电压	DC 6-24V			
额定输出电流	12A	2x7A	3x5A	3x3A+5A
无线通讯协议	Umi协议,基于SIG蓝牙Mesh			
手机APP	支持,-A及-T版本			
时钟功能	内置后备电池,仅限-T版			
无线工作距离	空旷地带>20米			
输出方式	PWM恒压			
PWM频率	498Hz-20.9KHz			
过载保护	有			
过热保护	有			
环境温度范围	-20°C~+55°C			
防水	标准版IP63,-S版IP68			
尺寸	86x21x8.5mm			

扫码下载Umi Smart APP:(-A及-T版)

