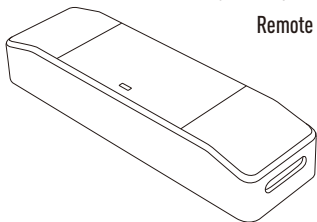


Remote Control & Smart

LED Controller

Model: K50 / K50W

5-in-1 Multi-function Model
Remote + Smartphone



Multi-Function



Remote + Phone



Full Protection



Push Terminal



High Power



Tuya Smart

2. Function DIP switch

The controller can be set to different function from single color to RGB+CCT. To change the controller function, please set the DIP switch to corresponding position as following picture when power supply is off.



Single color



CCT



RGB



RGBW



RGB+CCT

3. Work status indicator

- This indicator shows all working status of the controller. It displays different events as follows:
- Steady green:** Ready(K50) / Tuya smart ready (K50W).
- Steady yellow:** Tuya not connected(K50W).
- Short blink:** New command received.
- Long single blink:** Edge of the content or scene saved.
- Blink for 3 times:** Remote paired or restored to factory default.
- Red flash:** Overload protection.
- Yellow flash:** Overheat protection.

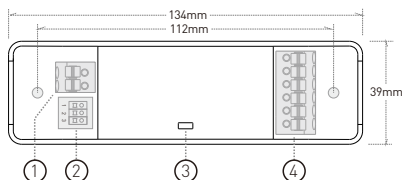
4. LED output

Connect to LED loads. The LED loads must be constant voltage driving type and compatible with PWM modulation. For multi-channel models, the LED connection need to be common anode. 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's rated current.

Introduction

K50 / K50W LED controller is designed to drive constant voltage LED products in voltage range of DC 12-24V. It can be controlled by RF remote controller (K50) or remote controller and Tuya smart app (K50W). The controller supports 1-5 channel application from single color to RGB+CCT. It has the full protection feature to guarantee the application safety. With the easy using push connectors, the installation is reliable and simple.

Function & Size



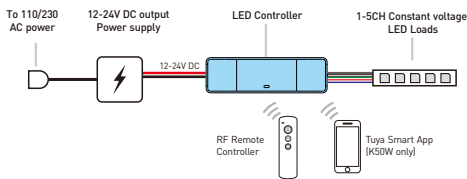
1. Power supply input

Connect to power supply. The controller can accept supply voltage from DC 12V to 24V, the maximum cable gauge is AWG12 or 2.5mm². The controller's output voltage is at same level as the power input voltage, please make sure the power supply voltage is correct and the power is capable for the load wattage. The power input '+' unit is directly connected to the output terminal '+' unit inside the controller.

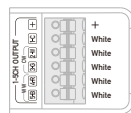
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Wiring

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.



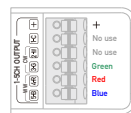
This model supports 1-5 channel application from single color to RGB+CCT, please refer to following diagram for multiple application output wiring.



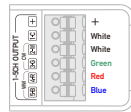
Single Color



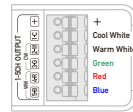
CCT



RGB



RGBW



RGB+CCT

2

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■ Operation

5. Pairing remote controllers

The controller can be paired with compatible RF remote controller for remote 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. Each controller can be paired up to 5 remote controllers. Please refer to the remote controller's user's manual for detailed operation.

6. Control by smartphone (K50W only)

For K50W model, user can also control the controller by the Tuya app. The working status displayed on app will be synchronized with the remote control operation for static color and brightness.

Before connecting to smartphone, please make sure the controller is at factory default mode and not connected to any other smart device.

■ Advanced features

7. Force turning on

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

8. Protection feature

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.

4

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■ Specification

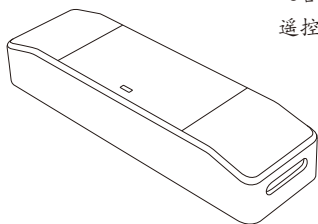
Working mode	Single color	CCT	RGB	RGBW	RGB+CCT
Working voltage	DC 12-24V				
Rated output current	Max 8A for each channel, total max 24A				
Smart control	K50W only, via Tuya wifi				
Communication distance	>20 meters at open area				
Output mode	PWM constant voltage				
Remote frequency	433.92MHz				
Output PWM frequency	1KHz				
Dynamic effects	8	NA	42	42	42
Overload protection	Yes				
Overheat protection	Yes				
Working temperature	-20°C~+55°C				
Dimension	134x39x24mm				

6

遥控器& 智能控制

LED控制器

型号: K50/K50W

5合1多功能型号
遥控器+智能手机

5m1

5合1功能



遥控+手机



全功能保护



按钮式端子



高功率



涂鸦智能

2. 拨码开关

该控制器可以被设置成单色到RGB+CCT不同功能型号。如需改变控制器的功能型号，请在控制器断电的情况下将拨码开关设置到如下图所示的相应位置。



单色



双色温



RGB



RGBW



RGB+CCT

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对应关系如下：

绿色常亮：正常工作 (K50)/涂鸦智能正常工作 (K50W)

黄色常亮：涂鸦未连接(K50W)

单次闪烁：收到命令

长单闪：达到当前操作项的边界值

慢闪3次：已配对遥控器或恢复出厂设置

红色闪烁：过载保护

黄色闪烁：过热保护

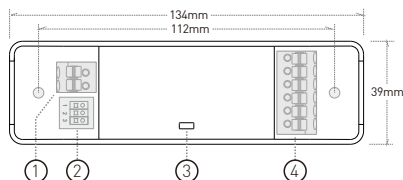
4. LED输出

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。

■ 简介

该LED控制器用于驱动电压范围为DC 12-24V的恒压LED产品。用户可以通过遥控器控制K50机型，通过遥控器和涂鸦智能App控制K50W机型。该控制器支持从单色到RGB+CCT的五种应用。同时该产品具有全功能保护功能，以确保在使用过程中的安全性。本机还具备按压式端子，使得安装变得更加可靠和便捷。

■ 功能与尺寸



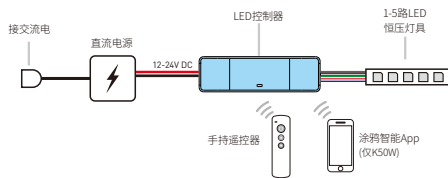
1. 电源输入

连接到电源。控制器可接受直流12-24V供电电压，端子可安装的最大电缆规格为AWG12或者2.5mm²。控制器的输出电平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。请注意电源输入的“+”极与输出端子的“+”极在控制器内部直接相连。

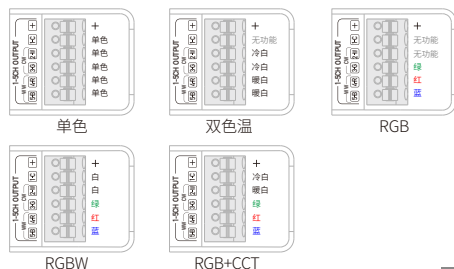
1

■ 接线图

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子。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已可靠绝缘。



本机支持从单色到RGB+CCT的应用，在不同应用下输出端子的功能定义如下：



2

3

■ 操作方法

5. 配对遥控器

控制器需要配对兼容的遥控器进行操作。用户需要将控制器断电再通电后，按下遥控器相应的组合键来完成配对或解除配对遥控器的操作，每个控制器最多可配对5个遥控器。有关配对的详细操作请参考遥控器的操作说明。

6. 用智能手机操作 (仅K50W)

除了遥控器外，用户还可以通过涂鸦智能App对K50W机型进行操作。在静态颜色下，用遥控器操作控制器时，控制器的工作状态会同步显示在涂鸦App上。

在连接智能手机之前，请确保控制器处于出厂默认模式，并且没有连接其他的智能设备或网关。

■ 高级功能

7. 强制开机操作

控制器会记忆断电前的灯光开关状态。若需要将设置为关灯状态的控制器强制开机，用户需要在短时间内连续3次断开并接通控制器的电源，控制器的输出就会被强制开启。

8. 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。

4

5

■ 规格

工作模式	单色	冷暖白	RGB	RGBW	RGB+CCT
工作电压	DC 12-24V				
额定输出电流	每通道最大8A, 总和最大24A				
智能控制	仅K50W机型, 基于涂鸦Wifi				
通信距离	空旷地带大于20米				
输出模式	PWM恒压模式				
远程频率	433.92MHz				
输出PWM频率	1KHz				
动态模式	8	NA	42	42	42
过载保护	有				
过热保护	有				
工作温度	-20°C~+55°C				
尺寸	134x39x24mm				

6