# CASAMBI LED Controller

Model: NB.1



#### 2. Press key input

Connect to a normally open type press key switch if local operation is needed. Three operation method is available for the press key:

Single press: Turn on/off.

Double click: Change color or color temperature.

Hold press: Dimming.

## 3. Working status indicator

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

Steady green: Normal working.

Short green blink: Command received.

**Green blink for 3 times**: Confirmation or identification.

**Single yellow flash**: Edge of the adjustment. **Red flash**: Overload protection.

**Yellow flash:** Overheat protection.

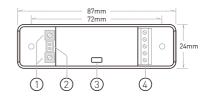
## 4. LED output

Connect to LED loads. The LED loads must be constant voltage driving type and with common anode connection for multi-channel models. 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

This LED controller is designed to drive single color to RGB+White constant voltage LED products in voltage range of DC 6-24V . With powerful functions of Casambi platform, it also has advanced user parameters to fine tune the application. With press key, optional RF remote controller and full protection function, the installation will be simple and reliable.

## Function & Size

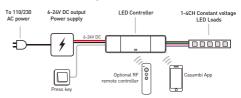


## 1. Power supply input

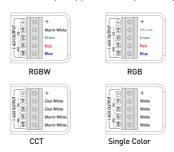
Connect to power supply. The controller can accept supply voltage from DC 6V to 24V, the maximum cable gauge is AWG12 or 2.5mm². The controller's output voltage is at same level as the power input voltage, please make sure the power supply voltage is correct and the power is capable for the load wattage. The power input '+' unit is directly connected to the output terminal '+' unit inside the controller.

# 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 1-4 channel application from single color to RGB+CCT, please refer to following diagram for multiple application output wiring.



# Operation

#### 5. Control by smartphone

Please install CASAMBI app on your smart phone first. It requires iOS10.0, Android 4.4 or macOS11.0 or later system to support the app. All functions of the controller is integrated with the CASAMBI app, please find the quidance on the app for operation.

#### 6. Pair the optional RF remtoe

Besides smart phone and press key control, user can also use the RM05 RF remote controller to turn on/off and change color or brightness. The remote controller needs to be paired to controller before using. Please refer to remote controller's manual for detailed operation.

## Advanced features

#### 7. Change model function

The working mode can be changed from 1 channel (single color) to 4 channels (RGBW) from the Casambi app.

To change the model, Please make sure the controller is not paired and then select the 'Change profile' function on the app to select desired model.

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# Specification

Function	Single color, CCT, RGB, RGBW
Working voltage	DC 6-24V
Rated output current	4x3A
Smartphone connection	Bluetooth mesh
Press key function	Yes
RF remote fucntion	Yes
RF remote frequency	433.92MHz
Output mode	PWM constant voltage
User parameter	Press key, Remote enable, Gradient, PWM frequency
PWM frequency	500Hz, 1KHz, 2KHz, 4KHz
Overload protection	Yes
Overheat protection	Yes
Working temperature (Ta)	-20°C~+55°C
Dimension	87x24x15mm

#### 8. Change user parameters

The press key, RF remote, gradient time and PWM frequency is adjustable from the user parameter setting. Please go to the setting menu on Casambi app to set up the parameters.

#### 9. 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.

# CAS▲MBI LED控制器

#### 型号: NB.1



## 2. 按键控制输入

连接到常开型按键开关,用于开关和调光操作。

按键开关有三种操作方式:

单按:切换开关状态

快速双按:调节颜色或色温

长按:调节亮度

## 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:

绿色常亮:正常工作

绿色单闪:收到命令绿灯慢闪3次:变更设置

球灯 慢闪3次, 受更设直

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

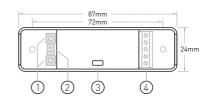
#### 4. LED输出

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 从直流 6V到 24V 的恒压 LED 产品。用户可以通过先进的Casambi App和可选的无线遥控器进行控制。本机支持从单色到 RGBW的各种应用,并且具有丰富的参数调整功能。结合本机按键、无线遥控选项和全功能保护特性,本产品可以满足各类恒压LED应用需求。

# ■ 功能与尺寸

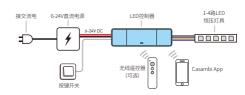


#### 1. 电源输入

连接到电源。控制器可接受直流6V至24V的供电电压,端子可安装的最大电缆规格为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。

# ■ 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RGBW的应用,在不同应用下输出端子的功能定义如下:



# ■ 操作方法

#### 5. 用智能手机操作

请使用运行iOS10.0或安卓4.4以上版本的智能手机,在安装Casambi App后通过App连接并控制本产品。本产品的所有功能均可在App上进行操作,具体的操作方法请参考Casambi App上的使用说明。

## 6. 配对并使用无线遥控器

本产品除了可以用智能手机以及有线按钮开关控制外,还可以使用RM05射频无线遥控器控制,并在遥控器上实现开关机、调节亮度以及改变颜色的功能。遥控器在使用之前需要先与控制器进行配对操作,具体的配对方法请参考遥控器的使用说明。

# ■高级功能

## 7. 改变通道配置

本产品兼容从单色到RGBW的4种应用模式。若需改变产品功能,请先确保控制器已经取消配对并通电,这时在Casambi App上找到该设备后,在弹出菜单中点击"更改配置文件"并选择需要变更的新机型。

#### 8. 改变用户参数

本产品的按键功能、无线遥控功能、开关机渐变速度以及PWM输出的频率可以在App的产品设置界面中进行调整,具体调整项请参考App设置界面。

#### 9. 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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## ■ 规格

型号	NB.1
功能	单色、冷暖白、RGB、RGBW
工作电压	DC 6-24V
额定输出电流	4x3A
手机通信方式	蓝牙
按键控制功能	有
无线遥控功能	有
无线遥控频率	433.92MHz
输出模式	PWM恒压
用户可调参数	按键,无线遥控,渐变速度,PWM频率
PWM频率	500Hz、1KHz、2KHz、4KHz可调
过载保护	有
过热保护	有
工作环境温度(Ta)	-20°C~+55°C
尺寸	87x24x15mm