



# Barthelme Chromoflex Casambi Controller Instruction Manual

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## Barthelme Chromoflex Casambi Controller



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## INTRODUCTION

The CHROMOFLEX CASAMBI contains up to 4 channels (for modern RGBW LED applications) and receives all control signals via the CASAMBI communication standard. Therefore, iOS or Android devices with Bluetooth are required for control and configuration.

The entire bandwidth of a CASAMBI network can be used. In addition to the LED outputs, each CHROMOFLEX CASAMBI has four button inputs that can control both the CHROMOFLEX CASAMBI and all other CASAMBI-enabled devices in the same network. All the usual CASAMBI parameters apply

## INTENDED USE

The CHROMOFLEX CASAMBI devices are used exclusively for controlling LED strips, lights and components in the specified voltage range. The device may only be installed indoors (IP 20). Up to four channels can be operated. Due to the constant voltage (CV) mode of operation, only LED components suitable for operation with constant voltage controllers may be connected.

The specified total power, as well as the power per channel, must not be exceeded. The device may only be operated in the defined temperature range from 0 to +50 °C. The temperature range must not be exceeded. Any disregard of the specified purpose will void the warranty.

## SPECIFICATIONS

**Operating voltage:** 10 V DC to 48 V DC

**Protection class:** III

**Output current:** max. 4 A / channel @ 24 V DC

**Output current:** max. 2 A / channel @ 48 V DC Dimensions (L/W/H): 116 / 52 / 22 mm

**Current consumption (without LED):** <5 mA Ambient temperature: 0 °C ~ +50 °C (Operate only in dry indoor areas with sufficient air circulation for heat dissipation, non-condensing)

**Radio frequency:** 2.4 GHz

**PWM frequency:** 2 kHz

## SAFETY INSTRUCTIONS

The device generates heat during operation. Care must be taken to ensure adequate air circulation.

The module includes internal reverse-polarity protection (with limited capacity); nevertheless, reverse polarity (even for a short time) can destroy the device.

We assume no liability in the case of improper operation, reverse polarity, modification of the device, property damage or personal injury caused by improper handling or non-observance of the safety instructions – all of the above will invalidate the warranty without exception.

If the LEDs are placed in a wet area (e.g. swimming pools, saunas, etc.), particular attention must be paid to the applicable regulations regarding the power supply.

The product may only be installed by a qualified specialist who is familiar with the applicable regulations (e.g. DIN, VDE, EN).

This product is not a toy and must be kept out of the reach of children. LEDs can also become very hot! It is always advisable not to exceed the specified maximum temperature of the light sources, as this can have a lasting effect on the life and light intensity of the LEDs.

#### **WARNING 1:**

LEDs can develop a very high light intensity, even when dimmed! Even weak LEDs can become very dangerous, especially when combined with optics. **Looking directly into LEDs can cause irreparable damage to the retina of the eye.** Use diffusers to distribute the light.

#### **WARNING 2:**

Please note that LED light can change its intensity very quickly. Rapidly changing lighting effects can affect perception and cause discomfort or even seizures in individuals prone to epilepsy.

### **INSTALLATION**

The electrical connection may only be carried out by a qualified electrician who is familiar with the applicable directives! Wiring diagram – see section 6.1 for CV. Caution: disconnect the power supply or connecting cable before carrying out any work!

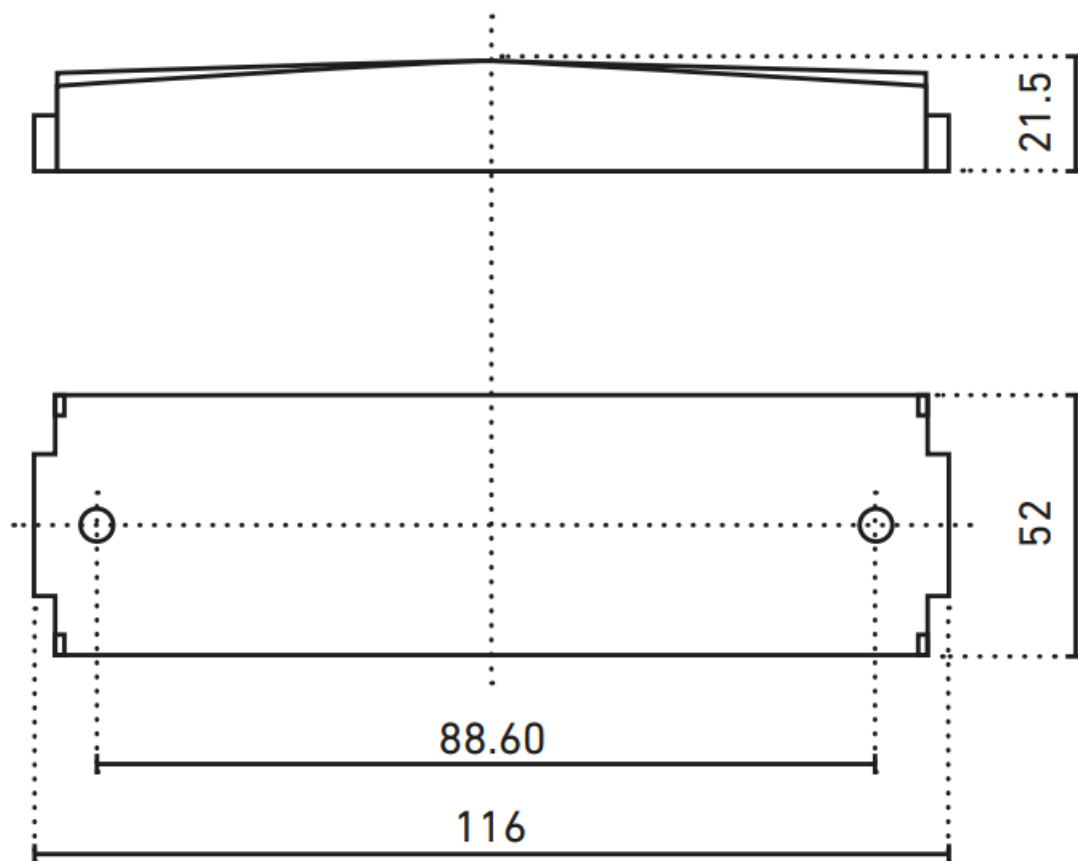
#### **INSTALLATION LOCATION**

The product is suitable for **floor, wall and ceiling mounting**.

Make sure that the product is mounted on a **stable, even, non-tilting surface**. The device generates heat during operation. Care must be taken to ensure adequate air circulation.

#### **FIG.: 1**

#### **Dimensions/Mounting holes**



## CONNECTION

### IMPORTANT:

The power supply must be matched to the respective LEDs! Important: an unsuitable power supply may cause malfunctions, unwanted flickering, overheating, destruction of the LEDs or destruction of the electronics

We strongly advise against the use of non-stabilised, low-cost power supplies!

In all cases, we recommend using powersupplies that are based on switched-mode technology! Furthermore, specialised „LED“ power supplies are often unsuitable because they contain control electronics for constant current that are incompatible with downstream controllers (such as the CHROMOFLEX CASAMBI).

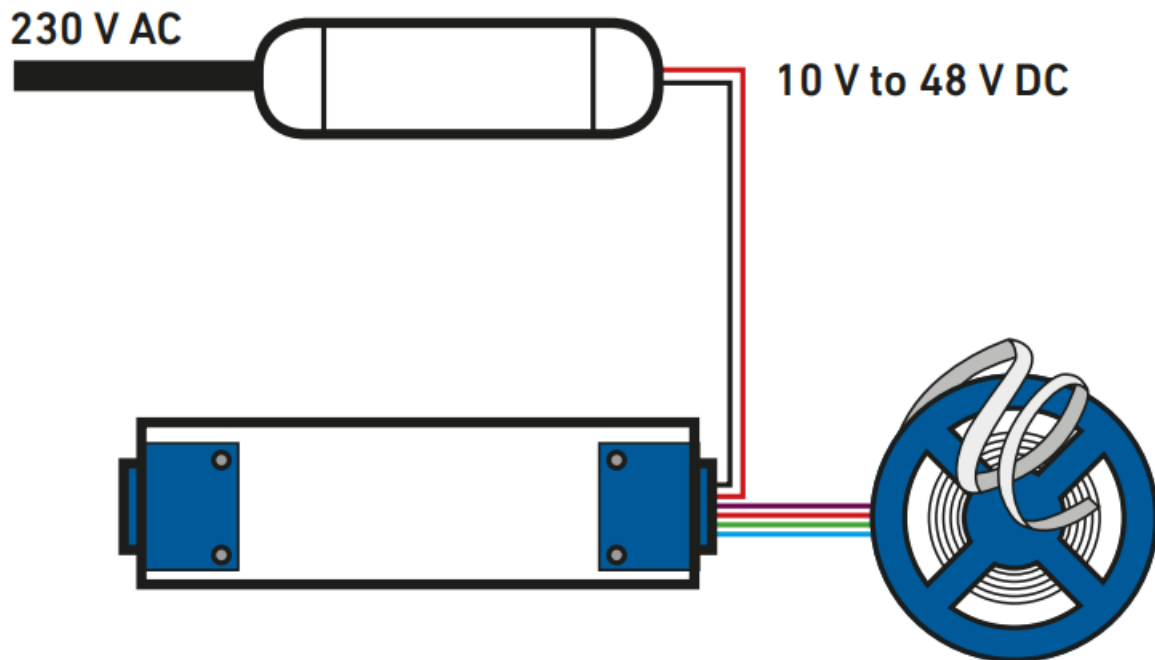
Of course, one power supply can also feed several modules simultaneously. In this case, ensure the power supply generates sufficient power.

The modules should be supplied with at least 10 V DC, the maximum permissible voltage is 48 V DC (+ 5 %) with the CHROMOFLEX CASAMBI.

### IMPORTANT:

The power supply must also have an adequate pulse load. Power supplies that are non-stabilised or produce too little power may cause flickering during colour transitions.

FIG.: 2



## CHROMOFLEX CASAMB

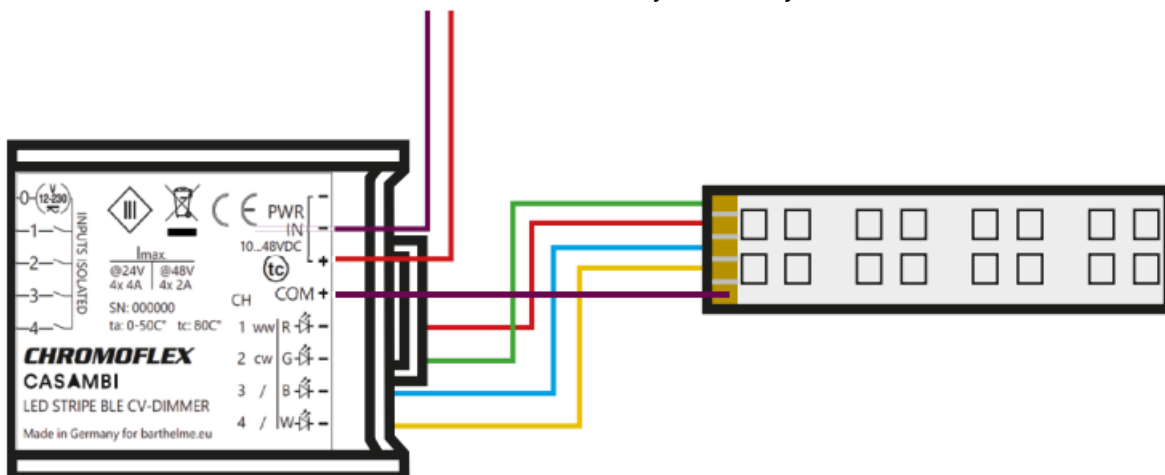
This device is a CV device. „CV“ stands for „Constant Voltage“. This model has no current limit. It passes the supply voltage directly to the LED strips. Therefore, if the LED strip requires 24 V DC, this must also be provided as voltage via the upstream power supply.

**Note:** in practice, LED strips with 12 V DC, 24 V DC and 48 V DC are common. LEDstrips may sometimes require very high currents, depending on their length.

The CHROMOFLEX CASAMBI model can switch up to 4 A per channel, depending on the supplied voltage.

## IMPORTANT

If the total load of the device exceeds 8A, it is absolutely necessary to use the second „PWR IN -“ contact!



## OPERATION

Ensure the product is in perfect working condition before using it. In the event of a fault, switch off the product immediately and do not operate it again until it has been checked by a qualified electrician. A fault exists if:

- there is visible damage to the device
- the product does not work properly
- the device emits smoke or audible crackling noises

- signs of overheating are detected

Repairs to the product or work on liveparts may only be carried out by qualified electricians.

## **WARNING:**

### **Danger to life due to electric shock! How to avoid faults and fire hazards:**

- Do not cover the product. Do not restrict the air circulation.
- Do not hang or attach anything to the product, in particular any form of decoration.
- Do not let children play with electrical products while unsupervised! Children are generally unaware of the hazards associated with electrical energy.

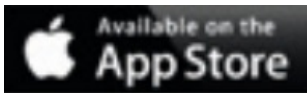
## **INITIAL COMMISSIONING**

Connect the devices to the power supply, as well as the LEDs, as shown in the **figures 2 and 3**. Make sure that the corresponding LED strips are connected to the CHROMOFLEX CASAMBI and that a suitable power supply has been selected.

## **NETWORKING AND CONTROL**


In the CASAMBI app, the CHROMOFLEX CASAMBI devices can be added to a network in the usual way. Before adding the device, you can also select the desired operating mode.

# CASAMBI





In the delivered state, the device is configured as an RGB/RGBW version. The menu item „**Change profile**“ displays the two profiles that are not activated.

Here, you can switch to the 1-channel variant (CASAMBI 4.0 4CH B) and the Tunable White variant (CASAMBI 4.0 CW B).

NEARBY DEVICES
 CASAMBI 4.0 ...
USE IN „NETWORK“
IDENTIFY LUMINAIRE
CHANGE PROFILE
IGNORE LUMINAIRE
CANCEL

If required, you can switch back to the RGB/RGBW version (CASAMBI 4.0 RGBW B) at any time.

CHOOSE PROFILE
<div>  <div> CASAMBI 4.0 4CH B </div> </div> <div>  <div> CASAMBI 4.0 TW B </div> </div>

Briefl y press the symbol to switch all of the connected LEDs on or off . The brightness value can be set as a percentage by placing a fi nger on thesymbol for the respective light source andswiping to the left or right. In „Controlled White“ mode, the colour temperature can be defi ned by placing a fi nger on the symbol for the respective light source and swiping up and down. The values for theindividual channels can be set directly by pressing and holding the light source for few seconds. In addition, the colour of the respective light source can also be set in RGBW mode.

**CHANEL:**

Dimmer 100.0%

Dimmer 100.0%

Dimmer 100.0%

Dimmer 100.0%

CONTROLLED WHITE:

Dimmer 100.0%

Colour Temperature 4700 K

RGB/RGBW:

Dimmer 100.0%

White/Colour 0.0%

Lightcolour 0

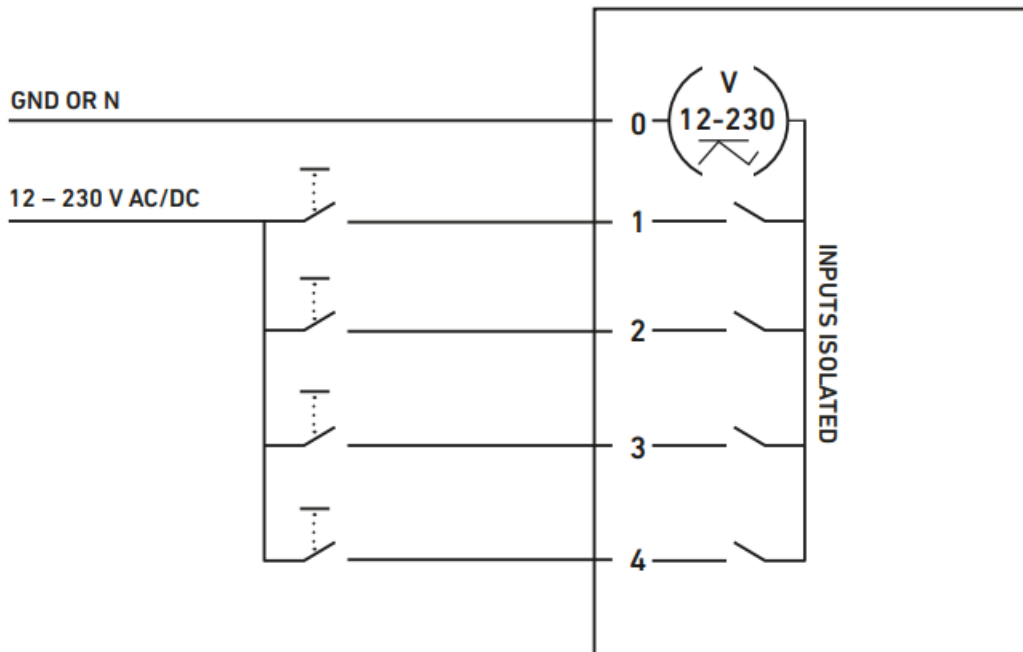
Colour Saturation 0.0%



## BUTTON INPUTS (12 – 230 V AC/DC)

The CHROMOFLEX CASAMBI also has 4 freely assignable button inputs. As with a CASAMBI sensor module, control pulses can be defined here (e.g. „controls a luminaire“; „controls an element“; „controls a group“; „controls scenes“; „controls all luminaires“; „change scenes“).

### WIRING DIAGRAM:



## SCOPE OF DELIVERY AND ACCESSORIES

Every CHROMOFLEX CASAMBI module comes with (these) operating instructions. They are included with the device and must be handed to the end user.

### SIMPLIFIED EU DECLARATION OF CONFORMITY:

Barthelme hereby declares that the radio equipment type [item no.: 66000465] complies with Directive 2014/53/EU. The full text of the EU Declaration of Conformity is available at the following internet address: [www.barthelme.de/shared/download/CE-Erklaerung-Barthelme\\_CASAMBI.pdf](http://www.barthelme.de/shared/download/CE-Erklaerung-Barthelme_CASAMBI.pdf)

## Customer Support

### CONTACT

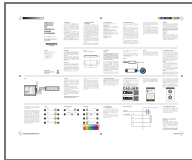
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VERSION 07|2019

SUBJECT TO TECHNICAL CHANGES.





## Documents / Resources



**[Barthelme Chromoflex Casambi Controller](#)** [pdf] Instruction Manual  
Chromoflex Casambi Controller, Chromoflex, Casambi Controller, Controller

## References

-  [Barthelme - LED SOLUTIONS | Startseite](#)
-  [barthelme.de/shared/download/](#)