

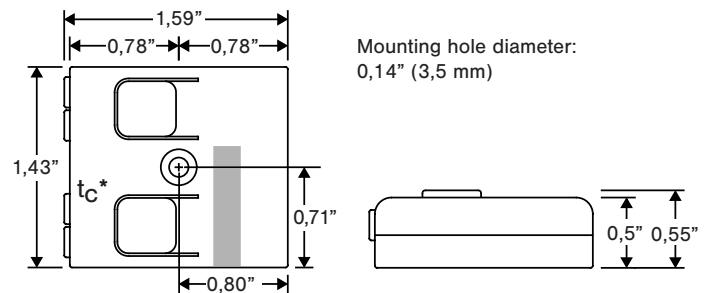
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 Reference Type: \_\_\_\_\_  
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 Notes: \_\_\_\_\_


## CBU-TED

Bluetooth-controllable dimmer



### Dimensions





**Warning!**  
 Hazardous voltages. Risk of electric shock or fire. Only qualified professionals should make the connections. Disconnect the mains power supply and verify its absence prior to installation.

### Disposal Instructions

This electrical product must not be disposed of as unsorted municipal waste. Please dispose of this product correctly: Regulations governing hazardous waste identification, classification, generation, management and disposal, found in title 40 CFR parts 260 through 273, should be observed.

Further information can be found in the Downloads section of the Casambi website: [casambi.com/ecosystem/cbu-ted/](https://casambi.com/ecosystem/cbu-ted/)

FCC ID: 2ALA3-CBUTED  
 IC: 22496-CBUTED  
 UL: UL Listed, E494741

### Description

CBU-TED is a Bluetooth-controllable, Casambi-enabled trailing edge dimmer for incandescent lamps, dimmable LED lamps and dimmable LED control gear. It can be installed behind a traditional wall switch, inside a luminaire or into a ceiling outlet box. The maximum allowed ambient temperature must be observed.

CBU-TED is able to control up to 50 W at 120 VAC. It features an overcurrent and over temperature protection.

CBU-TED can be controlled with the Casambi app, available for iOS and Android devices, as well as with traditional wall switches. The Casambi app can be downloaded free of charge from the Apple App Store and Google Play Store.

Different Casambi-enabled products can be used from a simple one-luminaire direct control to a complete and full-featured light control system where up to 250 units automatically form an intelligent mesh network.

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## Technical data

### Input

Voltage: 120 VAC  
 Frequency: 60 Hz  
 Max. mains current: 0,43 A  
 No-load standby power: < 0,3 W

### Output

Dimming method: trailing-edge phase control  
 Max. output power: 50 W @ 120 VAC  
 Max. output current: 0,43 A  
 Min. load requirement: 1 W  
 Max. load inrush current: 10 A, 100 ms

### Radio transceiver

Operating frequencies: 2402...2480 MHz  
 Maximum output power: +4 dBm

### Operating conditions

Ambient temperature, ta: -4°F to 113°F (-20 to +45°C)  
 Max. case temperature, tc: 167°F (+75°C)  
 Location of tc point: bottom side, underneath output connector  
 Storage temperature: -13°F to 122°F (-25...+50°C)  
 Max. relative humidity: 0...80%, non-condensing

### Connectors

Wire range, solid: 16–20 AWG  
 0,5–1,5 mm<sup>2</sup>  
 Wire strip length: .25" (6-8 mm)

### Mechanical data

Dimensions: 1.59 x 1.43 x 0.55 inch  
 40,4 x 36,3 x 14,0 mm  
 Weight: 0.5 oz (15 g)  
 Degree of protection: IP20 (indoor use only)

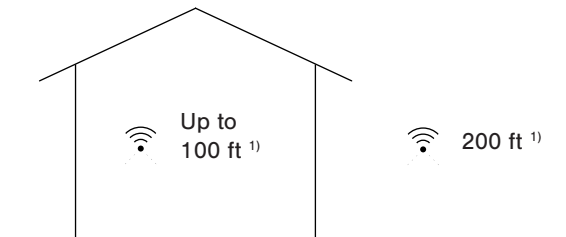
## Compatibility

### Compatible devices:

- iOS and Android, latest version and two (2) prior major versions (e.g. iOS 16 -> also 15 and 14)



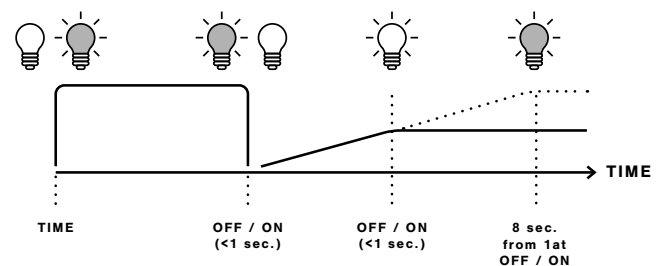
## Range



Casambi uses mesh network technology so each Casambi unit, or Casambi Ready product, acts also as a repeater. Longer ranges can be achieved by using multiple Casambi products.

<sup>1)</sup> Range is highly dependent on the surroundings and obstacles, such as walls and building materials.

## Dimming without app



1. Turn lights on from a wall switch.
2. Quickly flick the wall switch off (max. 1sec.) and back on. The light level starts to increase gradually.
3. Flick the switch again at the desired dim level. The selected level is saved automatically.
4. If the second flick is not done within 8 seconds, the light intensity reaches its maximum level.
5. Flicking the switch can also be used to switch between predefined scenes.

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## Installation

Make sure that the mains voltage is switched off before making any connections. Use 16-18 AWG solid conductor electrical wires. Strip the wire .25" (6-8 mm) from the end.

Press the buttons on top of the dimmer case and insert the wires into the corresponding terminals. Make sure to connect the input and output correctly. The input connector is marked with letters L and N, while the output connector is marked with the letter N and a symbol with a wave and an arrow (⚡).

If you install the dimmer into a heat-sensitive environment (e.g. inside a luminaire or in a ceiling outlet box above a luminaire), make sure that the ambient temperature does not exceed the specified maximum value. Using the dimmer in a heat-sensitive environment may limit the maximum output power.

### Warning

Using CBU-TED with maximum load will make it hot. Make sure to place the product in well-ventilated space and away from any flammable material.

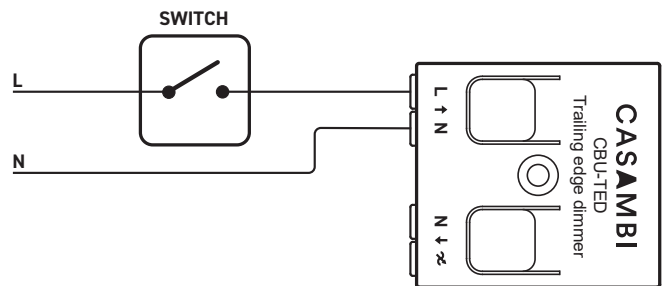
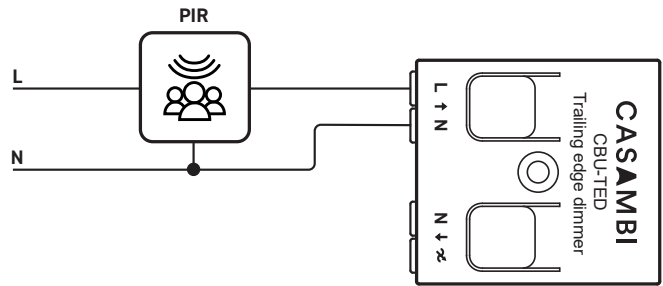
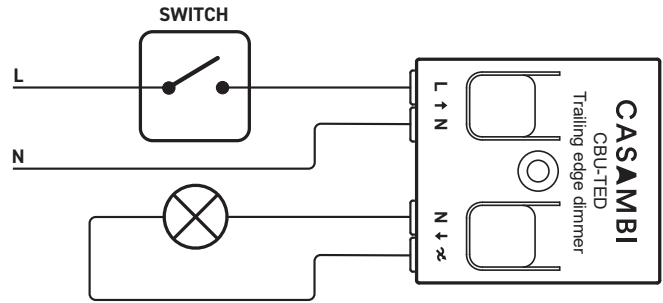
### Type of load

Type of load	Max. load
Incandescent and high voltage halogens	50 W
Dimmable LED bulbs (C) <sup>1)</sup>	50 W
Dimmable CFL bulbs (C) <sup>1)</sup>	50 W
Trailing edge dimmable LED drivers <sup>1)</sup>	50 W
Low voltage halogens with electronic transformers	50 W
High voltage AC LED modules <sup>1)</sup>	50 W
Wire wound transformers, electric motors and other inductive loads	Not allowed
Non-dimmable fluorescent lamps, LED and CFL bulbs	Not allowed

<sup>1)</sup> Dimming quality depends solely on the load electronics. Do not mix different types of bulbs or loads. Some luminaires may flicker at low dimming

Never connect inductive loads, such as iron core transformers. This could cause permanent damage to the dimmer. Do not mix different types of loads.

## Wiring diagrams



### Warning

Changes or modifications not expressly approved by Casambi Technologies Oy could void the user's authority to operate the equipment.

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**Fixture profile**

Profile #	Profile	Description
526*	TED	One channel 50/60Hz trailing edge phase cut dimmer
11766	TED (Linear)	One channel 50/60Hz trailing edge phase cut dimmer
8123	TED (Log)	One channel 50/60Hz trailing edge phase cut dimmer
3534	Presence	Fixture providing presence and/or daylight sensing. Presence can be activated from smart switch, push button or dedicated presence sensor.

\*Default profile

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**Compliance Statement**

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

**Radiation Exposure Statement for FCC**

This device complies with FCC radiation exposure limits for an uncontrolled environment. This device shall be installed and operated with a minimum distance of 0.8" (2cm) between users or bystanders and the device.

**FCC Interference Statement**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**Radiation Exposure Statement for Canada**

This device complies with Industry Canada's licence-exempt RSSs.

Operation is subject to the following two conditions:

- (1) This device may not cause interference
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

This equipment is exempt from the routine RF exposure evaluation requirements of RSS-102. This equipment should be installed and operated with a minimum distance of 20 cm between the antenna and the user or bystanders.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

- (1) l'appareil ne doit pas produire de brouillage;
  - (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.
- Ce matériel n'est pas sujet à l'évaluation habituelle d'exposition RF selon RSS102. Ce matériel devrait être installé et exploité en gardant une distance minimale de 20 cm entre l'antenne et l'utilisateur ou les spectateurs.

**NOTES**