

CBU-TED-LR

Bluetooth-controlled trailing edge dimmer.



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.



PRODUCT DESCRIPTION

CBU-TED-LR is a Bluetooth-controlled, long-range, Casambi-enabled, trailing-edge dimmer for incandescent lamps, dimmable LED lamps and dimmable LED control gear. With Casambi's CBU-TED-LR compatible dimmable load can be easily converted to become a part of a Casambi mesh radio network.

CBU-TED-LR can control up to 100VA at 230 VAC. It features an overcurrent and over temperature protection.

CBU-TED-LR 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 setup to a complete and full-featured lighting control system, in which up to 250 units automatically form an intelligent mesh network.

TECHNICAL DATA

Input

- Voltage: 85–240 VAC
- Frequency: 50 or 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: 100VA @ 230 VAC (75W)
- 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: +8 dBm

Operating conditions

- Ambient temperature, t_a : -20 to +45°C
- Max. case temperature, t_c : +75°C
- Location of t_c point: bottom side, underneath output connector. The t_c point is marked on the enclosure.
- Storage temperature: -25...+75°C
- Max. relative humidity: 0...80%, non-condensing

Connectors

- Wire range, solid: 0,5–1,5 mm², 16–20 AWG
- Wire strip length: 6-8 mm

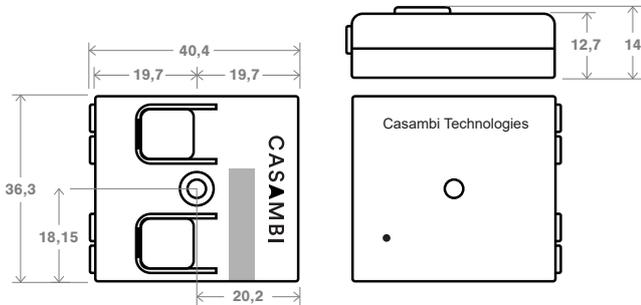
Mechanical data

- Dimensions: 40,4 x 36,3 x 14,0 mm
- Weight: 15 g
- Degree of protection: IP20 (indoor use only)

Certifications

- CE
- AU/NZ

DIMENSIONS (IN MM)

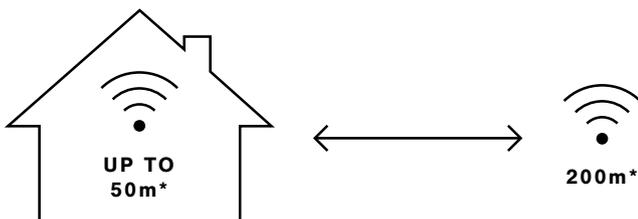


*t_c point is on bottom side • |
 ■ Antenna location

Mounting hole diameter 3,5mm

RANGE

The communication range in radio technology may ultimately vary depending on the design of the product in which the antenna is housed and on the environment in which it operates. In practice, this means a well-designed product from a radio point of view, with a good line of sight connection between nodes, can achieve radio coverage up to 50 meters indoors, and, in theory, up to 200 meters in the open air. Casambi uses a mesh network technology, whereby each Casambi unit, or Casambi Ready product, also acts as a repeater. Hence, longer ranges can be achieved by using multiple Casambi products within the network.



*The wireless range of a Casambi unit is dependent on several factors; how it has been integrated into a luminaire, where it has been installed; taking into consideration surrounding obstacles such as walls and other building materials that may block signals.

CASAMBI MESH-NETWORK COMPATIBILITY

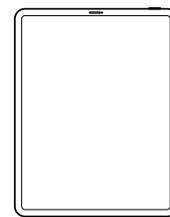
There are different radio modes that can be selected when creating a network in the Casambi App: 'Balanced', 'Better Performance' and now 'Long Range' options. The CBU-TED-LR enables long-range capabilities only when the long-range radio mode has been selected and all the other devices within the network are long-range capable. It will revert to the shorter, standard range when deployed in networks set to 'Balanced' or 'Better Performance' modes.

COMPATIBLE DEVICES



Compatible devices: Android and iOS Operating Systems.

We support the latest OS versions for Android and iOS, and their last two major versions respectively.



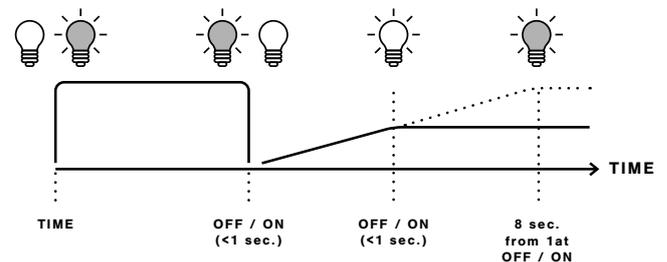
Tablets



Smartphone



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.

TYPE OF LOAD	Max. load inrush current = 10A, 100ms	MAX. LOAD
Incandescent and high-voltage halogens		100VA (75W)
Dimmable LED bulbs (C) ¹⁾		100VA (75W)
Dimmable CFL bulbs (C) ¹⁾		100VA (75W)
Trailing edge dimmable LED drivers ¹⁾		100VA (75W)
Low voltage halogens with electronic transformers		100VA (75W)
High voltage AC LED modules ¹⁾		100VA (75W)
Wire wound transformers, electric motors and other inductive loads		Not allowed
Non-dimmable fluorescent lamps, LED and CFL bulbs		Not allowed

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

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

WARNING!

-  Using CBU-TED-LR with maximum load will make it hot.
-  Make sure to place the product in well-ventilated space and away from any flammable material.
-  Maximum allowable ambient temperature must be observed.
-  Changes or modifications not expressly approved by Casambi Technologies Oy could void the user's authority to operate the equipment.

INSTALLATION

Make sure that the mains voltage is switched off before making any connections. Use 0,5–1,5 mm² solid conductor electrical wires. Strip the wire 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 in 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.

When the Smart Switching feature is enabled with the Casambi App, the CBU-TED-LR can control the connected luminaire according to the mains switching sequence.

FIXTURE PROFILES

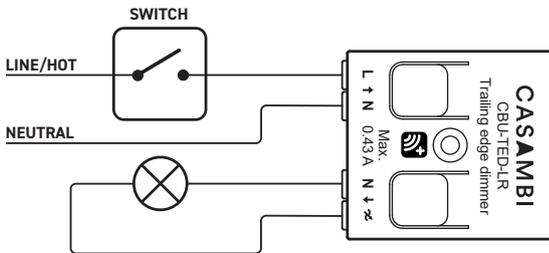
Profile#	Profile name / in app description	Description	Wiring
526*	CBU-TED	Trailing edge phase cut dimmer for 50/60Hz load. Light level is controllable with a slider in the Casambi App.	1
11766	CBU-TED (Linear)	Trailing edge phase cut dimmer for 50/60Hz load. Light level is controllable with a slider in the Casambi App.	1
8123	CBU-TED (Log)	Trailing edge phase cut dimmer for 50/60Hz load. Light level is controllable with a slider in the Casambi App.	1
3534	CBU-TED Presence	CBU-TED-LR acting as a presence sensor or Bluetooth enabled switch. The fixture provides presence information to the mesh network when the CBU-TED-LR is powered up.	2A, 2B

* Default profile

WIRING DIAGRAMS

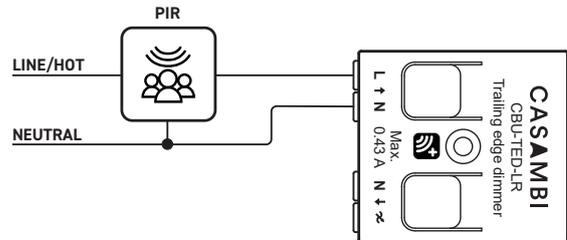
Each CBU product can operate in various roles according to the chosen profile. It is possible to change the profile of an unpaired device using the Casambi App. Above are listed the fixture profile options for the CBU-TED-LR.

1.

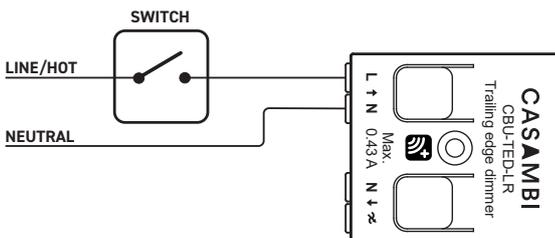


Max. load inrush current = 10A, 100ms

2A.



2B.



- Kabelkopplingsdosa "Väderbeständig"
- utan plint
- Mått H x B x T: 93 x 93 x 62 mm
- med metriska utbrytningsöppningar

ELEKTRISKA EGENSKAPER

Nominell isolationsspänning: $U_i = 1000 \text{ V}$

ANSLUTNINGSDATA

KABELINGÅNGAR

Kabelgenomföring:

Antal kabelgenomföring	Typ av kabelgenomföring	Storlek metrisk utbrytningsöppning	Kabelgenomföringsplats
7	metriska utrytningsöppningar	M20	Vägg

MEKANISKA EGENSKAPER

Typ av lockfäste: Snabbförslutning för kapslingslock: Öppnas och stängs med ett kvarts varv, låsläget känns igen med en blick

Medlevererade tillbehör: Yttre fästen, Fästband, Tätningsplugg

IP-kapslingsklass: IP66, IP67, IP69
 IP67: Kortvarig nedsänkning upp till 1 m/30 min
 IP69: Vattentryck max. 100 bar, vattentemperatur max 80 °C, avstånd $\geq 0,15 \text{ m}$

Slaghållfasthet: IK09

Plomberingsbar utan tillbehör: Ja

MILJÖFÖRHÅLLANDEN

För att minska kondens och ackumulering, se teknisk information "Kondensvattenbildning och motåtgärder"

Användningsområde: Oskyddad installation

Max omgivningstemperatur 24 h: 55 °C

Omgivningstemperatur: -25 °C upp till +70 °C

Relativ luftfuktighet: $\leq 50 \%$ vid 40°C, $\leq 100 \%$ vid 25°C

MATERIALEGENSKAPER

material:	Polykarbonat
Glödtrådsprov enligt IEC 60695-2-11:	960 °C
UL 94:	V-0
Temperaturbeständighet:	-25 °C upp till +100 °C
Halogenfri:	Ja
Silikonfri:	Ja
Väderbeständig:	Ja (resistent mot UV-exponering från solstrålning, is och havsvatten, korrosion, temperaturbeständig, slagttålig)

DIMENSIONER

Höjd:	93 mm
Bredd:	93 mm
Djup:	62 mm
Nettovikt:	0.108 kg
Inbyggnadshöjd:	74 mm
Inbyggnadsbredd:	74 mm
Inbyggnadsdjup:	47 mm

GODKÄNNANDEN

Överensstämmelse med standarder: DIN EN 60670-1/-22, IEC 60670-1/-22

Certifikat:

Certifikattyp	Certifikatnummer
VDE	40041432
DNV GL	TAE00000EE

DISTRIBUTIONSDATA

Produktnummer:	62000042
EAN:	4012591121701
Förpackningsenhet:	5
Tulltaxenummer:	85369010

ETIM-klass:

DYNAMIC: EC002600 - Box/housing for surface mounting on the wall/ceiling

ETIM-8.0: EC002600 - Box/housing for surface mounting on the wall/ceiling

ETIM-7.0: EC002600 - Box/housing for surface mounting on the wall/ceiling

ETIM-6.0: EC002600 - Box/housing for surface mounting on the wall/ceiling

ETIM-5.0: EC002600 - Box/housing for surface mounting on the wall/ceiling

ETIM-4.0: EC002600 - Box/housing for surface mounting on the wall/ceiling

ANMÄRKNING

Den angivna skyddsgraden ändras inte vid användning av de medföljande tätningssluggarna.

product_label___input__

RITNINGAR

