

Project: _____

Reference type: _____

Item code: _____

Date: _____

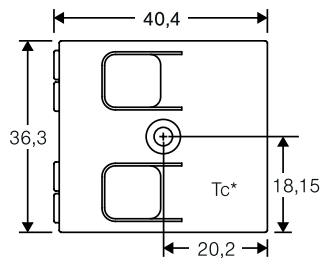
Notes: _____

CBU-DCS USA & Canada

Bluetooth controllable LED driver controller



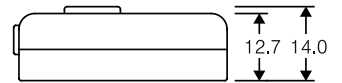
Dimensions



*Tc point is on bottom side

Wire info:

Solid and stranded:
16-20 AWG/ 0,5-1,5 mm²
Strip length: .25"/6-8 mm



Dimensions are in mm.



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.

Description

CBU-DCS is a Bluetooth controllable, Casambi enabled LED driver controller. It is designed to be used with ANSI C137.4 compatible products, such as Philips Advance Xitanium SR LED drivers and OSRAM LED drivers with DEXAL™ technology. CBU-DCS does not have its own power supply. Instead, it is powered directly from the LED driver's control interface. ANSI C137.4 compliant drivers combine DALI communication with an integrated DALI power supply.

CBU-DCS together with other 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 127 units form automatically an intelligent mesh network. Casambi supports nearly unlimited number of mesh networks in an installation site.

Casambi system can be controlled with Casambi app which can be downloaded free of charge from Apple App Store and Google Play Store. Other controlling methods are, for example, timers, Casambi enable sensors, such as PIR/occupancy and lux sensors, as well as Casambi Xpress and EnOcean switches.

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Technical data

Input

Voltage range: 9.5-22.5 VDC, Class 2,
Current limited to max. 250 mA
Max. input current when idle: 5 mA
Standby power: < 0,1 W

Radio transceiver

Operating frequencies: 2.401-2.483 Ghz
Maximum output power: ⌘ typ. +0 dBm, +/-3dBm

Operating conditions

Ambient temperature, ta: -4...+131 °F (-20...+55 °C)
Max. case temperature, tc: +149 °F (+65 °C)
Storage temperature: -13...+167 °F (-25...+75 °C)
Max. relative humidity: 0...80%, non-cond.

Connectors

Wire range, solid & stranded: 0.5 - 1.5 mm²
16 - 20 AWG
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)
FCC ID: 2ALA3-CBUDCS
IC: 22496-CBUDCS
UL: UL Listed
UL Plenum Rated (UL 2043)

Range

The range between two CBU-DCS units or between a CBU-DCS and a smart phone can vary a lot depending on obstacles and surrounding material. In open air the range between two CBU-DCSs can be in excess of 200 ft, but if the unit is encapsulated into a metal structure, the range can be only few feet. Therefore, thorough testing is highly suggested.

Casambi uses mesh network technology so each CBU-DCS acts also as a repeater. When testing the network, it is important to test that each unit can be controlled from any point of the network covered area.

Compatible devices:

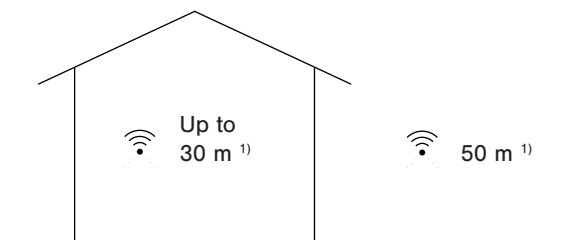
iPhone 4S or later

iPad 3 or later

iPod Touch 5th gen or later

Android 4.4 or later devices

produced after 2013 with full BT 4.0 support



Casambi uses mesh network technology so each CBU-DCS acts also as a repeater. Longer ranges can be achieved by using multiple Casambi units.

1) Range is highly dependant on the surrounding and obstacles, such as walls and building materials.

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Installation

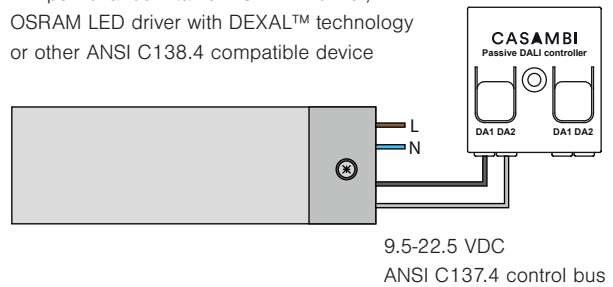
CBU-DCS must be powered only from the control interface of an ANSI C137.4 compatible device. Do not use a regular DC power supply since it will cause permanent damage to the CBU-DCS. The product can be installed outside of a junction box.

Use 16-20 AWG (0,5-1,5 mm²) solid or stranded 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 holes. The polarity of DA1 and DA2 does not matter. CBU-DCS has two sets of connectors. These connectors are internally connected in parallel with each other. This way the control bus can be routed through the product for easy installation. Up to four LED drivers can be connected in parallel to one CBU-DCS. Connecting more than four drivers may cause permanent damage to the device.

CBU-DCS, as any other Casambi product, should not be placed in a metal enclosure, such as metal junction boxes. Metal will attenuate radio signals which are crucial to the operation of the product. If the product will have to be installed into a junction box, make sure to use a plastic junction box. Also make sure to comply with National Electric Code in installation.

Wiring diagram

Philips Advance Xitanium SR LED driver,
OSRAM LED driver with DEXAL™ technology
or other ANSI C138.4 compatible device



Warning!

Using regular DC power supply will cause permanent damage to the product!

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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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