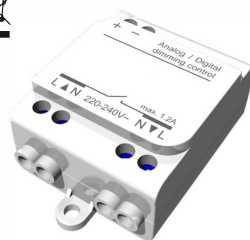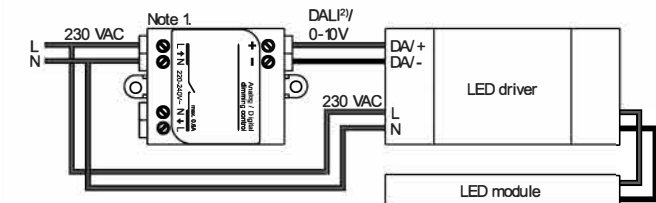## Bluetooth control unit for LED drivers
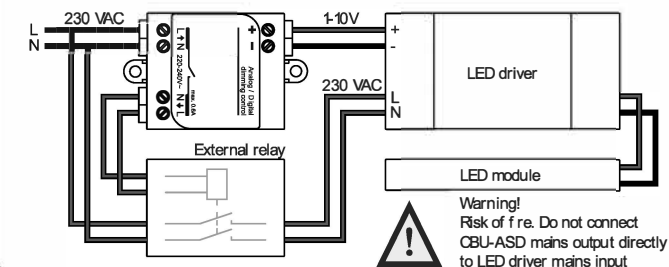
CE

Warning!
Hazardous voltages. Risk of electric shock or fre. Only qualifed professionals should make the connections. Disconnect the mains power supply and verify its absence prior to installation.
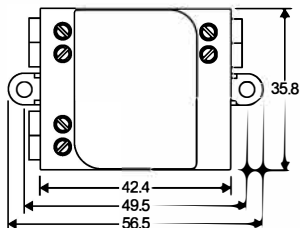
Wiring diagram, directly powered DALI or 0-10V drivers
Suitable for drivers that can be switched of via control interface

Note 1.
230 VAC
L
N
DALI[2]/ 0-10V
DA/+
DA/-
230 VAC
L
N
LED driver
LED module

Wiring diagram, directly powered DALI or 0-10V drivers
Suitable for drivers that cannot be switched of via control interface

230 VAC
L
N
1-10V
+
-
230 VAC
L
N
LED driver
External relay
LED module

Warning!
Risk of f re. Do not connect CBU-ASD mains output directly to LED driver mains input

Dimensions

Mounting hole diameter: 2 x 3.5 mm

35.8
22.3
42.4
49.5
56.5

Note 1. This is a built-in class II device. Use double insulated wires or an external mounting box if the device is not mounted inside another insulated device.
Note 2. This device and its DALI interface do not meet the requirements of IEC 60929. Connect only directly to a DALI controllable LED driver. Not to be connected to an existing DALI network. Connect only one LED driver (DALI or 0/1-10V driver) to one device.

Description

This is a wireless control unit for LED and halogen drivers with 0-10V, 1-10V or DALI dimming interface. The control output can be confgured either as analog 0-10V (and 1-10V) or digital Standalone DALI control interface.

When the output is confgured as Standalone DALI, the device acts both as a controller and as a power supply making it possible to connect directly to an LED driver with DALI interface without the need for an external DALI power supply. This so called Standalone DALI makes it possible to implement multi-channel lighting systems with adjustable color (RGB) or color temperature, while keeping the wiring and number of components at their minimum.
This device does not comply with IEC 60929 and therefore is not designed to be connected to an existing DALI network. The module can be used only in a closed system, i.e. as a part of a lighting system which is not connected to an external DALI network.
The device is controlled wirelessly with smartphone and tablet applications using Bluetooth 4.0 protocol. Devices form automatically a secure wireless mesh network so that a large number of fxtures can be controlled from any point. No external gateway module is needed. This device can be controlled also from a standard on/of wall switches.

Installation

Make sure that the mains voltage is switched of when making any connections. Use 0,75-1,5 mm² solid or stranded conductor electrical wires. Strip the wire 6-7 mm from the end. Insert the wires to the corresponding holes and tighten the connector screw. Make sure to connect the input and outputs correctly. Mains input connector is marked with letters L and N with an arrow pointing inwards, while the mains output connector is marked with letters L and N with an arrow pointing outwards. The low voltage output is marked with + and - symbols.
If you install the device into a heat sensitive environment (i.e. inside a luminaire or in a ceiling outlet box above a luminaire), make sure that the ambient temperature does not exceed the specifed maximum value.

Range

Up to 40 m [1]
50 m [1]

LEDsGO

Download on the App Store

ANDROID APP ON Google play

Casambi uses mesh network technology so each this device acts also as a repeater. Longer ranges can be achieved by using multiple Casambi units.
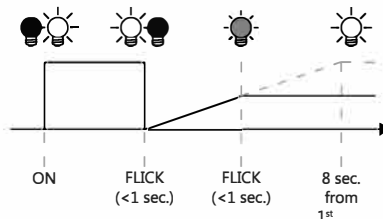Compatible devices:
iPhone 4S or later
iPad 3 or later
iPod Touch 5th gen or later
Android 4.4 KitKat or later devices produced after 2013 with full BT 4.0 support

[1] Range is highly dependant on the surrounding and obstacles, such as walls and building materials.
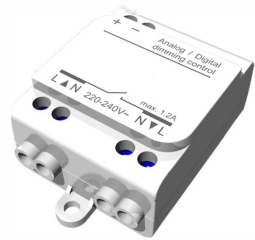
Dimming without app

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

ON
FLICK (<1 sec.)
FLICK (<1 sec.)
8 sec. from 1st

Technical data

Input
Voltage range:	220-240 VAC
Frequency:	50 Hz
Max. mains current:	0,6 A

Mains Output
Output relay:	SSR on phase line
Voltage range:	220-240 VAC
Frequency:	50 Hz

0-10V Output
Voltage range:	0-10 VDC
Max. sink/source current:	7 mA

Radio transceiver
Operating frequencies:	2,4...2,483 Ghz
Maximum output power:	+4 dBm

Operating conditions
Ambient temperature, ta:	-20...+70 ℃
Max. case temperature, tc:	+70 ℃
Storage temperature:	-25...+75 ℃
Max. relative humidity:	0...80%, non-cond.

Connectors
Wire range, solid & stranded:	0,75-1,5 mm²
	14-22 AWG
Wire strip length:	6-7 mm
Tightening torque:	0,4 Nm/4 Kgf.cm/2,6 Lb-In

Mechanical data
Dimensions:	56,5 x 35,8 x 22,3 mm
Weight:	48 g
Degree of protection:	IP20 (indoor use only)
Protection class:	Built-in Class II

Partnumbers:
ITC-110	1-IOV
ITC-DALI1	Dali 1 ch dim
ITC-DALITW	Dali 2 ch dim/tunable white

In conformity with the provisions of Council Directives
Radio Equipment Directive 2014/53/EU
Restriction of Hazardous Substances (RoHS) 2011/65/EC and
Regulation (EC) No 1907/2006 of the European Parliament
and of the Council (REACH)

Not just using apps and smartphones

Casambi enabled luminaires can be controlled from a regular power or wall switch without the Casambi app. It is possible to use the wall switch for dimming, controlling one scene with multiple luminaires or switching through multiple scenes.

Even a 100 year old power switch can be used. There is no need to install additional dimmers, simply install the Casambi unit and you are ready to use the regular wall switch for dimming. To be able to control scenes you need to first change the Smart Switching settings with Casambi app.

Easy to install
You don't need any new wiring, switches, devices or networks. Plug in the lighting fixture and pair it with your phone or tablet. No other configurations needed.

Practical daily use
You can still use your existing wall switches. They will have a new life: use them as dimmers and control many lamps with one switch.

Delightful to use
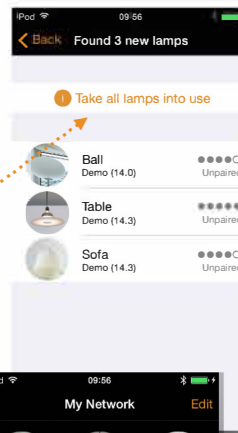You can control your lights with an intuitive and visual user interface on your smartphone or tablet.

Lighting as Experience
Casambi is more than just a light switch. With a tap on your smartphone you can set the ambience for study, watching a movie, or a romantic dinner.

First time use

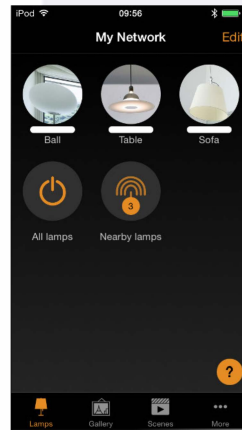Casambi app is easy to take into use. Follow these simple steps.

1. Download the app from Apple App Store or Google Play Store.

2. Turn on your Casambi enabled luminaires.

3. Open the app.

4. Casambi app will automatically find all Casambi enabled luminaires that are switched on.

5. Tap on the 'Take all lamps into use'.

6. Casambi app will automatically add all luminaires to one network and open the 'Lamps' tab

Basic gestures
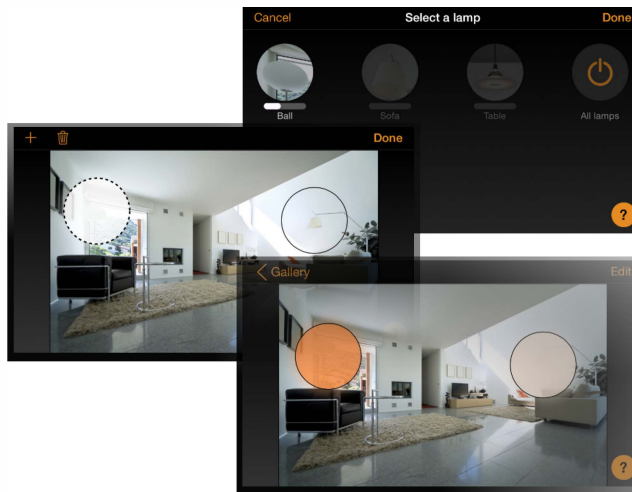
Here are the basic gestures how to control your lights.

- To turn off or on your luminaire just tap on the lamp control.

- Pan lamp control left or right to adjust light level of the luminaire.

- Pan lamp control up or down to adjust the colour temperature of the luminaire.

- Hold on top of the lamp control to change the colour.

Gallery

The Gallery in Casambi app is the most natural way of controlling your luminaires. Take a picture of the room where your luminaires are, and place lamp controls over them in the picture.

1. Add a photo of your room to Casambi Gallery by tapping 'Edit' and after that the '+' sign.

2. After you have added a photo you can add lamp controls to the picture. Tap on the '+' sign, select a lamp control that you want to add to the picture and tap 'Done'.

3. After you have added controls over all the luminaires in the picture tap 'Done'.

4. Now you can control your luminaires visually from the picture. No need to guess which luminaire is which.

Scenes

In the 'Scenes' tab you can create different lightings for different occasions. It is possible to control multiple luminaires with one tap to create perfect ambience. One luminaire can be used in several scenes.

1. Tap on 'Add a scene' and enter a name for the scene

2. Select one or multiple lamp controls and adjust the luminaires for the scene. You can adjust the luminaires separately or if you want to have same dim level or colour for all you can use the 'Lamps in scene' control to adjust all luminaires in the scene.

3. When you are done editing the scene tap on '< Back'.

4. If you would like to create more scenes tap on the 'Edit' in scenes tab and then tap on the '+' sign.

Networks and Sharing

If you want to control your luminaires from more than one mobile device you can change the network sharing settings from Networks settings.

1. Go to 'More' tab and select 'Networks settings'.

2. Tap on the Sharing and the 'Sharing mode' screen will open.

3. There are four different sharing modes: Not Shared, Administrator only, Password protected and Open.

4. Confirm your settings with 'Save'.