# CBU-ASD

## Bluetooth control unit for LED drivers

## Dimensions

Mounting hole diameter:
2 x 3,5 mm

56,5
49,5
42,4
35,8
22
6
22,3

Antenna location
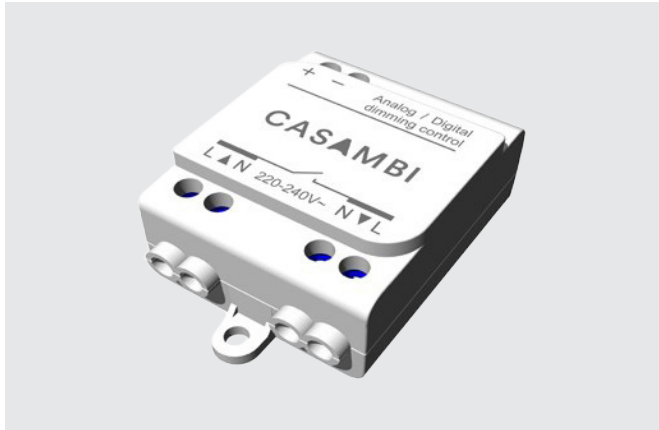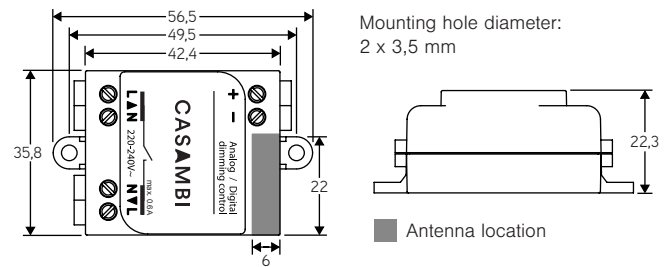
Dimensions are in mm.                    * Tc point is on bottom side

**CE** **Bluetooth** **WEEE** **✓RoHS**

| 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-ASD is a wireless control unit for any type of drivers with 0-10V, 1-10V or DALI dimming interface. CBU-ASD is available with either analog 0-10V (and 1-10V) or digital Standalone DALI control interface.

With Standalone DALI output, CBU-ASD 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 and RGBW) or color temperature (CCT), while keeping the wiring and number of components at their minimum.

CBU-ASD 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.

CBU-ASD is controlled wirelessly with Casambi smartphone and tablet applications using Bluetooth 4.0 protocol. The Casambi app can be downloaded free of charge from Apple App Store and Google Play Store.

Devices form automatically a secure wireless mesh network so that a large number of luminaires can be controlled from any point. No external gateway module is needed. CBU-ASD can be controlled also from standard on/off wall switches.

## Installation

Make sure that the mains voltage is switched off 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 CBU-ASD 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 specified maximum value.

## 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 |

**Risk of fire. Mains output is only allowed to connect to external relay. It must not be connected to LED driver mains input.

### 0-10V Output

| | |
|---|---|
| Voltage range: | 0-10 VDC |
| Maximum number of drivers connected: | 1 pc |

### DALI Output

| | |
|---|---|
| Voltage range: | 9-12 VDC |
| Maximum number of drivers connected: | 1 pc |

### Radio transceiver

| | |
|---|---|
| Operating frequencies: | 2400...2480 Mhz |
| Maximum output power: | +4 dBm |

### Operating conditions

| | |
|---|---|
| Ambient temperature, ta: | -20...+50°C (Iout 0 A) |

**Ta max 50°C. Derate output current linearly from +40°C...+ 50°C...

| | |
|---|---|
| Max. case temperature, tc: | +70 °C |
| Storage temperature: | -25...+75 °C |
| 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 |

### Mechanical data

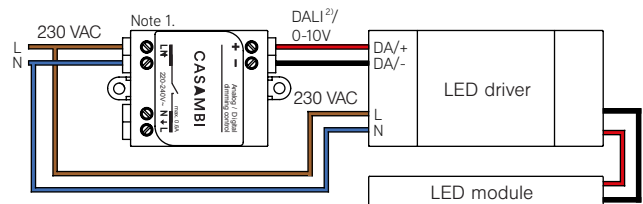| | |
|---|---|
| Dimensions: | 56,5 x 35,8 x 22,3 mm |
| Weight: | 48 g |
| Degree of protection: | IP20 (indoor use only) |
| Protection class: | Built-in Class II |

## Wiring diagram, directly powered DALI or 0-10V drivers

Suitable for drivers that can be switched off via control interface



## Wiring diagram, 1-10V drivers powered through external relay

Suitable for drivers that cannot be switched off via control interface



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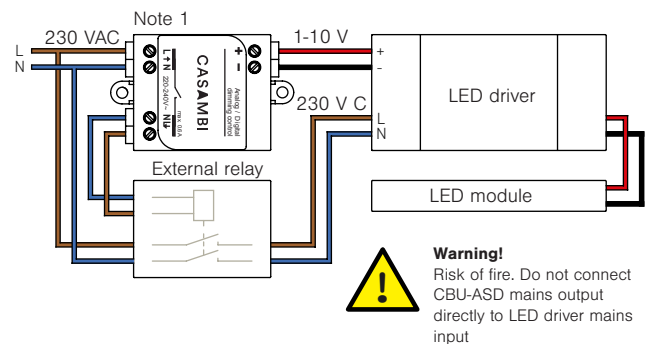
Note 1. CBU-ASD is a built-in class II device. Use double insulated wires or an external mounting box if the device is not mounted inside another insulated device.
Note 2. CBU-ASD and its DALI interface do not meet the requirements of IEC 60929. Connect only directly to a DALI controllable LED driver.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

## Range

**Compatible devices:**
iPhone iOS 10 and later are supported
iPad iOS 10 and later are supported
Android 4.4 version (KitKat)
and later are supported

Download on the
**App Store**

ANDROID APP ON
**Google play**

CASAMBI

Up to
30 m [1]

50 m [1]
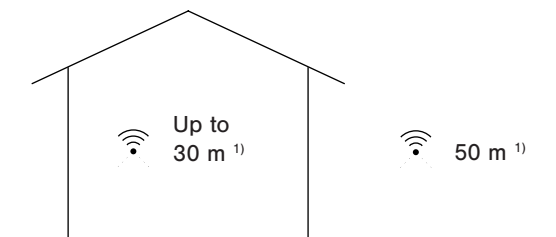
Casambi uses mesh network technology so each Casambi unit, or Casambi Ready product, acts also as a repeater. Longer ranges can be achieved by any using Casambi unit as a repeater.
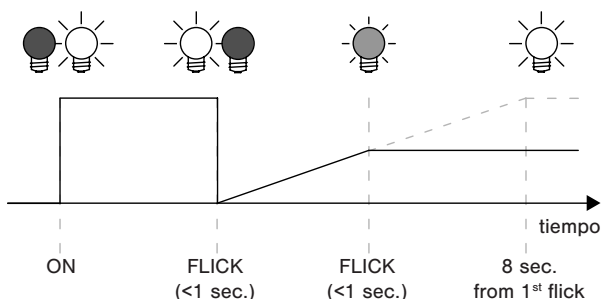
1) Range is highly dependant on the surrounding and obstacles, such as walls and building materials.

## Dimming without app

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

tiempo

1. Turn lights on from a wall switch.
2. Quickly flick the wall switch off (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 flick is not done within 8 sec. the light intensity reaches its maximum level.
5. Flicking the switch can also be used to switch between predefined scenes.

## Disposal Instructions

In line with EU Directive 2002/96/EC for waste electrical and electronic equipment (WEEE), this electrical product must not be disposed of as unsorted municipal waste.
Please dispose of this product by returning it to the point of sale or to your local municipal collection point for recycling.

# Fixture profile

| Type | Profile # | Profile | Description |
|---|---|---|---|
| DALI DT 8 | 8631 | DALI DT8 2xDim, TW | 2 dimmers with common tuneable-white control for CBU-ASD with 2 DALI DT8 drivers (CCT). |
| | 8632 | DALI DT8 3xDim,TW | 3 dimmers with common tuneable-white control for CBU-ASD with 3 DALI DT8 drivers (CCT). |
| | 3213 | DALI DT8 RGB | 3-channel (RGB) DALI DT8 dimmer supporting 'RGBWAF' color-type input: Dim and RGBWAF channels |
| | 4845 | DALI DT8 RGB+TW 2500-7000K | DALI DT8 dimmer with mutually exclusive RGB or TC (color temperature) controls |
| | 3214 | DALI DT8 RGBW | 4-channel (RGBW) DALI DT8 dimmer supporting 'RGBWAF' color-type input: Dim and RGBWAF channels |
| | 2808 | DALI DT8 TW 2700-6500K | Dimmer with tuneable white for CBU-ASD with DALI DT8 driver supporting TC color model: warm/cool mixing is done by DALI driver, and CBU-ASD sets dimlevel and temperature values. |
| | 4268 | DALI DT8 TW 3000-5000K | Dimmer with tuneable white for CBU-ASD with DALI DT8 driver supporting TC color model: warm/cool mixing is done by DALI driver, and CBU-ASD sets dimlevel and temperature values. |
| | 12892 | DALI DT8 XY (EVO) | Multichannel DALI DT8 dimmer supporting 'XY' color-type control |
| | 12890 | DALI DT8 XY,TW (EVO) | Multichannel DALI DT8 dimmer supporting 'XY' color-type control |
| | 5245 | DALI/BC DT8 TW | Dimmer with tuneable white for CBU-ASD with DALI DT8 driver supporting TC color model: warm/cool mixing is done by DALI driver, and CBU-ASD sets dimlevel and temperature values. |
| DALI sensors | 8642 | DALI Sensors (Daylight control,Presence) | Fixture providing presence and/or daylight sensing in the Pass-Through mode - delivering control commands observed on DALI bus. |
| | 5002 | DALI Sensors (Lux, Presence) | Fixture providing presence and/or daylight sensing in the Pass-Through mode - delivering control commands observed on DALI bus. |
| | 9335 | DALI/BC+Sensors | Basic DALI broadcast dimmer, no short addressing required. |
| DALI | 93 | DALI 1xDIM (AO) | Basic DALI dimmer, using address #0 for dimming channel. |
| | 8800 | DALI 2CH Dim Mixer | Luminaire with dimmer and vertical ratio selector (sum of channels is same as dim level) |
| | 8699 | DALI 2CH TW (G0,G1) | Two channel warm/cool mixer. |
| | 141 | DALI 2xDIM | Two channel luminaire. Dimmer #1: address #0, Dimmer #2: address #1 |
| | 8670 | DALI 2xDIM (G0,G1) | Two channel luminaire. Dimmer #1: address #0, Dimmer #2: address #1 |
| | 8799 | DALI 2xDIM (preconfig-ured) | Two channel luminaire. Dimmer #1: address #0, Dimmer #2: address #1 |
| | 9308 | DALI 2xDim,TW | Four channel warm/cool mixer with two dimmer controls and shared color temperature control. 1x4-channel or 2x2-channel DALI driver(s) |
| | 10001 | DALI 2xDim,TW(NoMix) shared | Two channel warm/cool without mixing. Address 0 will receive dim level and address 1 will receive tunable white ratio. |

| | 176 | DALI 3xDIM | Three channel luminaire. Dimmer #1: address #0, Dimmer #2: address #1, Dimmer #3: address #2 |
|---|---|---|---|
| | 1272 | DALI 4xDIM | Three channel luminaire. Dimmer #1: address #0, Dimmer #2: address #1, Dimmer #3: address #2, Dimmer #4:address #3 |
| | 8386 | DALI 4xDIM (G0..G3<) | Three channel luminaire. Dimmer #1: address #0, Dimmer #2: address #1, Dimmer #3: address #2, Dimmer #4:address #3 |
| | 8789 | DALI 4xDIM (new) | Three channel luminaire. Dimmer #1: address #0, Dimmer #2: address #1, Dimmer #3: address #2, Dimmer #4:address #3 |
| | 90* | DALI Broadcast (min) | Basic DALI broadcast dimmer, no short addressing required. |
| | 3111 | DALI Broadcast NO RELAY (log) | Basic DALI broadcast dimmer, no short addressing required. |
| | 11773 | DALI Broadcast (new) (lin) | Basic DALI broadcast dimmer, no short addressing required. |
| | 3100 | DALI Broadcast (new) (log) | Basic DALI broadcast dimmer, no short addressing required. |
| | 12645 | DALI RELAY 1CH Dim | Fixture using DALI channels with custom elements. ON/OFF toggle. This fixture does not provide any built-in lighting controls. On CBU-ASD only supported attribute type is Slider. |
| | 91 | DALI RGB | Three channel RGB fixture, Red: address #0, Green: address #1, Blue:address #2 |
| | 1166 | DALI RGB White | Four channel RGB fixture with white. RGB is always present but amount of white can be adjusted. |
| | 3251 | DALI RGB White (auto) | Four channel RGB fixture with white. RGB is always present but amount of white can be adjusted. |
| | 2872 | DALI RGB (auto) | Three channel RGB fixture. Red: address #0, Green: address #1, Blue: address #2 |
| | 165 | DALI Tunable White | Two channel warm/cool mixer. |
| | 8624 | DALI Tunable White (G0,G1) | Two channel warm/cool mixer. |
| | 3548 | DALI Tunable White (auto) | Two channel warm/cool mixer. |
| Misc. | 3174 | Presence | CBU-ASD acting as presence sensor attached to smart switch or to low voltage digital/analog interface as push button. |
| | 1000 | 0/1-10 | Basic one channel 0-10V dimmer. |
| | 5678 | Relay | Fixture using DALI channels with custom elements. This fixture does not provide any built-in lighting controls. On CBU-ASD only supported attribute type is Slider. |
| | 6552 | Relay+PB | CBU-ASD with low voltage push button connected to Analog / Digital dimming interface. |
| | 1031 | Push Button | Unit with one push button (momentary action switch). In case of CBU-ASD there is a single low voltage push button that can be connected to Analog / Digital dimming interface. |

*Default profile

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