Up to **50 x DALI LED drivers**

Up to **8 x DALI Short Addresses**

Up to **8 x DALI Groups**

CASAMBI

DALI 2

CE UK CA

■ Features

➢ Casambi to DALI control device

➢ DALI-2 certified

➢ Input voltage: 110-277 Vac

➢ AC loop: Duplicated mains terminals for easy integration into lighting fixtures

➢ Dedicated push button input for controlling Casambi devices

➢ Integrated CBM-003 module (it can be paired to Casambi Long Range networks)

➢ Integrated DALI bus power supply with 100 mA guaranteed current

➢ Possibility to control up to 50 DALI LED drivers

➢ Possibility to individually control up to 8 DALI Short Addresses

➢ Possibility to individually control up to 8 DALI Groups

➢ Supports DALI-2 motion & light sensors

➢ More than 85 different Casambi fixture profiles available

■ Description

CBU-DA-1P is a Casambi to DALI control device. CBU-DA-1P controller uses Bluetooth Low Energy communication to receive a command signal from the Casambi APP and convert it into DALI commands according to the selected fixture profile.

CBU-DA-1P has an integrated DALI Bus Power Supply with 100mA guaranteed current, which means that it can control up to 50 DALI LED drivers.

There are many Casambi fixture profiles available for CBU-DA-1P that include different control modes: Broadcast, Short Address, Groups, DT6, DT8, TW, RGBW, XY...

CBU-DA-1P also integrates a dedicated push button input for controlling Casambi devices.

Configuration and control can be done from a mobile phone or tablet using the free CASAMBI APP (available for iOS and Android).

In order to access the most updated manuals and information, consult our website: https://www.olfer.com/olfer-cbu-da-1p.html or QR code

- ## Technical data

CBU-DA-1P		
Nominal input voltage	110 … 277 Vac	
Input voltage range	99 … 305 Vac	
Input frequency	47 … 63 Hz	
Input current [1]	≤ 40 mA	
Power consumption [1]	≤ 2,5W	
Power consumption standby [2]	< 0,3W	
AC loop max. current [3]	5 A	
Push Button input [4]	Normally open push button (N.O.)	
Output control interface	DALI	
Max. number of drivers connected [5]	50 pcs	
DALI	Bus voltage	12-14 VDC
	Guaranteed current	100 mA
	Maximum current [6]	250 mA
RF	Communication interface	Bluetooth Low Energy (BLE) 4.0 / 5.0
	Communication protocol	Casambi
	Operating frequencies	2402–2483 MHz
	Max. transmission power	+7 dBm
Firmware update	OTA (Over The Air)	
Protections	Line permanent over voltage (non replaceable fuse), line surge over voltage, over temperature.	
Temperature monitoring	Internal temperature is displayed in Casambi App	
Operating temperature range	-20ºC … +50ºC	
Connector	Screw terminals (Max. torque: 4 Lb.In / 0,5 Nm)	
Wiring	Solid size	0,2 … 3,3 mm2 / 30 … 12 AWG
	Stranded size	
	Wire strip length	6,5 mm
IP	IP20	
Enclosure material	Plastic (UL94-V0)	
Dimensions	44 x 57 x 25 mm	
Weight	58 g (carton box included)	
Standards	EN 61347-1:2016, EN 61347-2-11:2003, EN 55015:2013, EN 61547:2011, EN 61000-3-2, EN 61000-3-3, EN 301489-1, EN 301489-17	
DALI standards	IEC 62386 part 101, 103. Supports DALI-2 light and motion sensors (IEC62386 parts 303-304). Supports luminaire, energy and diagnosis data (IEC62386 parts 251-252-253)	
Directives	(LVD) 2014/35/UE, (EMC) 2014/30/UE, (RED) 2014/53/UE, (RoHS) 2011/65/UE, (REACH) 1907/2006.	

[1] Values measured at maximum DALI bus load (100mA).

[2] Measured with one DALI driver connected to the DALI bus (2mA).

[3] Maximum current when attached LED drivers are powered through CBU-DA-1P free L/N terminals (see wiring diagram section).

[4] The maximum recommended wiring distance between the push button and terminals is 100 meters (installations with strong electromagnetic interferences may require the use of shielded cable). Push button input is only ready to connect a normally open push button. Make sure not to connect live parts to the PUSH terminals.

[5] Certified DALI drivers with < 2mA current consumption in the DALI part. Using non-certified drivers could reduce this max. number.

[6] CBU-DA-1P has an integrated DALI Bus Power Supply with 250mA maximum current. Before connecting CBU-DA-1P to a DALI line, please make sure that no other DALI Bus Power Supply is powering the bus.

■ Casambi fixture profiles
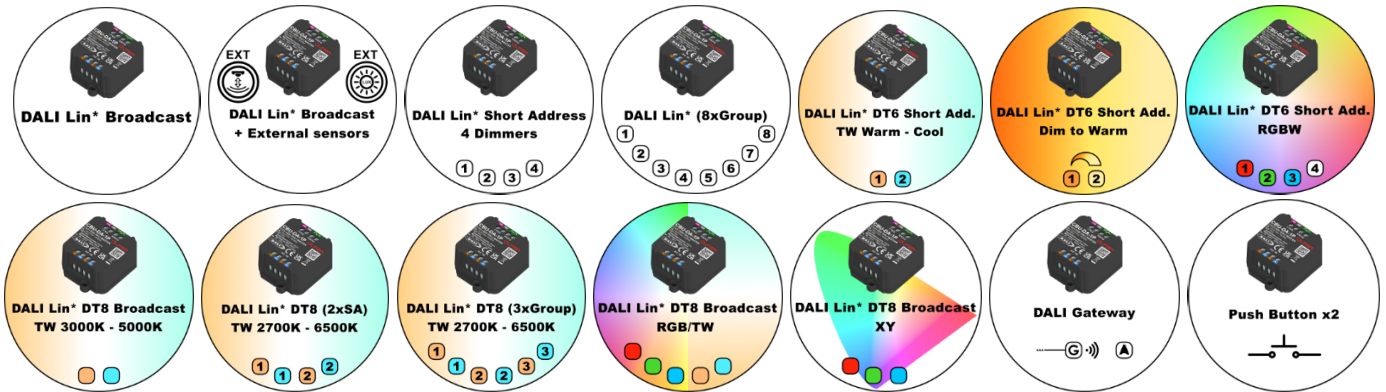
Factory default fixture profile is **#33477 DALI Lin* Broadcast**.

There are more than 85 Casambi fixture profiles available that include different control modes:

- Broadcast

- Broadcast + sensors

- DT6 and DT8

- DALI Short Address (1 to 8)

- DALI Groups (1 to 8)

- Tunable White (TW), RGB, RGBW, RGB/TW, XY and XY/Tc

- DALI gateway

- Push Buttons…

To access the full fixture profiles information, consult below URL:

https://www.olfer.com/olfer-cbu-da-1p.html

| Type	Profile				Description	Manual App Control
	Fixture ID	Model / Name	Icon	Fixture mode		
	33477**	**DALI Lin* Broadcast**		DALI/BC/Dim{OHI,HWTemp}	DALI Broadcast. Linear dimming curve. Factory default profile.	**Dimmer:** BC
	33478	**DALI Log Broadcast**		DALI/BC/Dim{OHI,HWTemp}	DALI Broadcast. Logarithmic dimming curve.	**Dimmer:** BC
	33479	**DALI Lin* BC + Ext. Presence**		DALI/BC/Dim{OHI,HWTemp,Presence}	DALI Broadcast. Linear dimming curve. A DALI-2 motion sensor connected to the DALI bus will appear as a Casambi sensor in the App.	**Dimmer:** BC
					DALI Broadcast. Linear dimming curve. A	

Our fixtures profiles perform an automatic configuration of attached DALI drivers and sensors.

Other fixture profiles available on request.

▪ **Wiring diagram**

➤ <u>Control of one or multiple DALI devices as external control device</u>:

- o No limit for AC current consumption of attached LED drivers.
- o Recommended.
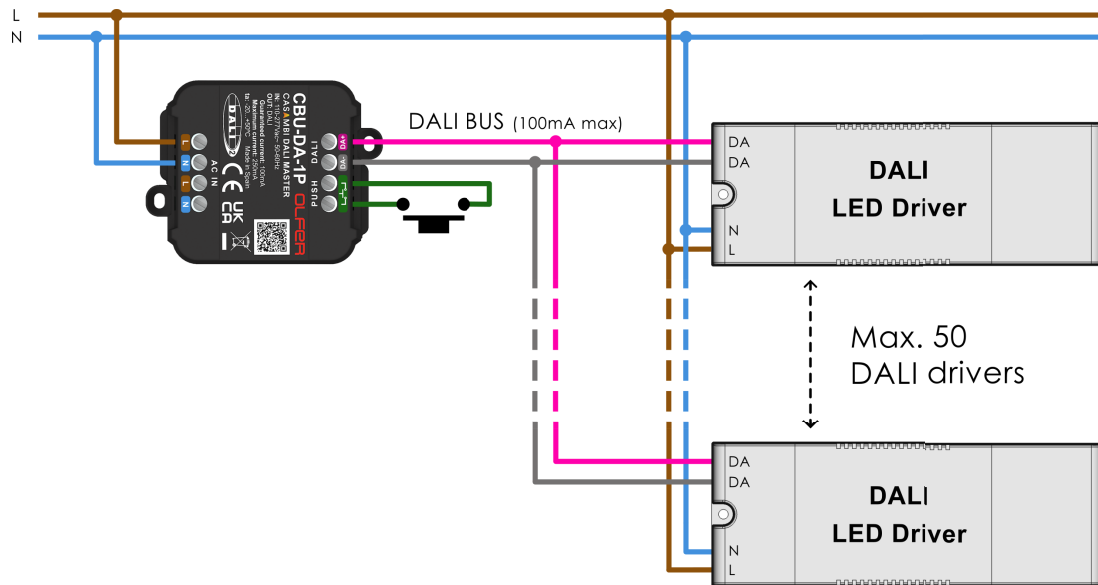
DALI BUS (100mA max)

Max. 50
DALI drivers

➤ <u>Integration into lighting fixtures</u>:

- o Limit for AC current consumption of attached LED driver/s -> 5A max.
- o Not allowed when AC current consumption of LED driver/s is unknown or above 5 A.
- o Not recommended unless you need to save space/terminals by using AC loop feature.

DALI BUS (100mA max)

AC current: 5A max
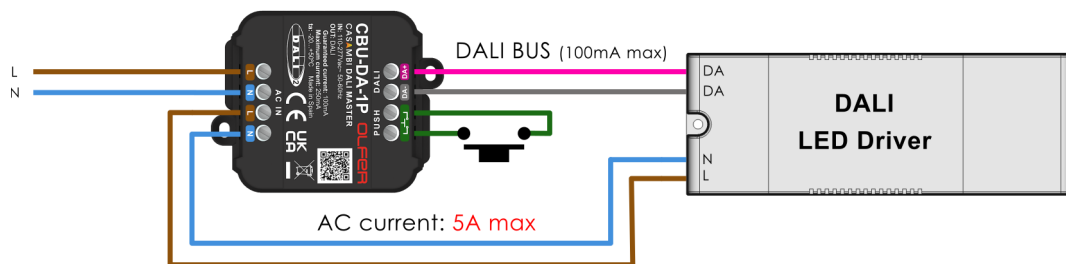
- When attached LED drivers are powered through CBU-DA-1P free L/N terminals (AC loop feature), make sure that total AC current consumption of attached LED drivers is below 5A.

- Connect the normally open push button to the PUSH terminals marked with the symbol "⌐ᴸᴼ". Make sure not to connect live parts to the PUSH terminals.

- Max. DALI bus current consumption allowed is 100mA which means that the max. number of certified DALI drivers that can be connected is 50 pcs. Using non-certified drivers could reduce this max. number.

- Some fixture profiles allow that an optional DALI-2 motion & light sensor can be connected to the DALI bus (its DALI current consumption will reduce the max. number of DALI LED drivers that can be connected).

To access the <u>full wiring diagrams information</u>, consult below URL:

https://www.olfer.com/olfer-cbu-da-1p.html

■ Mechanical dimensions
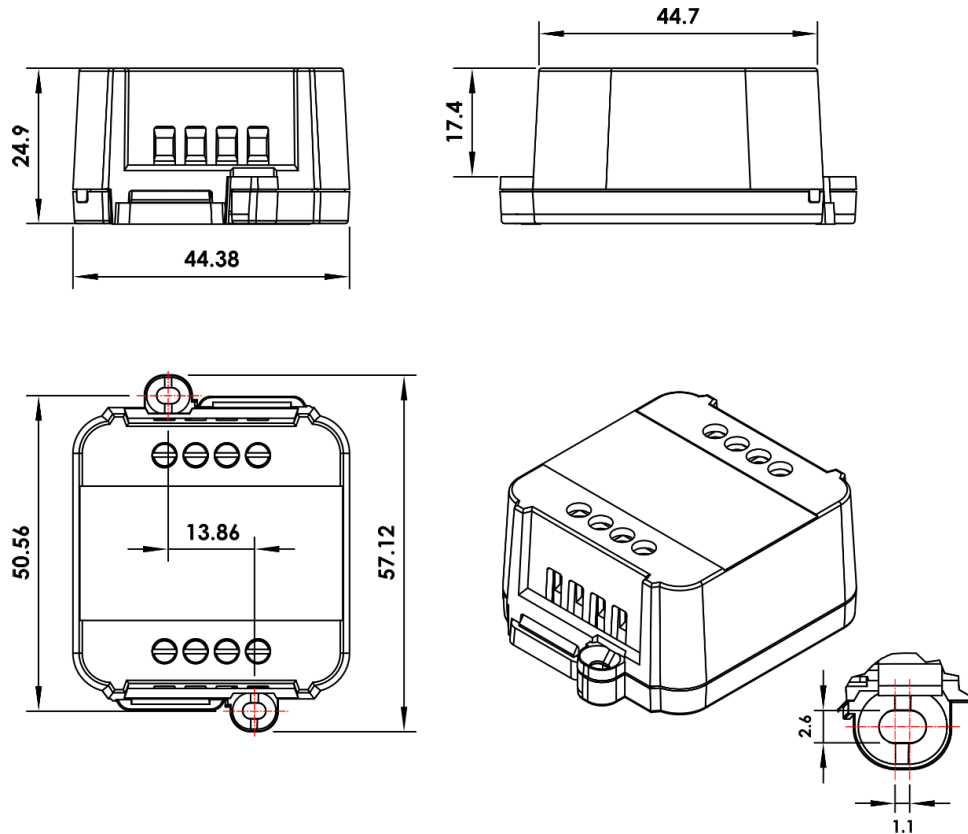
## ■ Placement and antenna location

Like any other Casambi product with Bluetooth control, be sure not to place the product inside a metal case or placed near large metal structures. Metal will significantly obstruct the radio signal, which is crucial for the proper functioning of the device.

When the product is mounted inside a metal case (e.g. integrated into a metal light fixture), a cut-out around the antenna may be needed for allowing the RF signal to exit the structure. The cut-out area should be as large as possible. Also the device should be placed as far away from any vertical structures as possible.

CBU-DA-1P's antenna is placed in the right side of the device (below location marked in yellow):
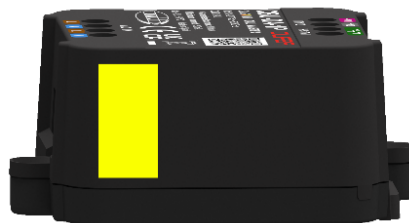
The range between two devices in open air without obstacles is up to 120 meters in balanced networks. Higher ranges could be achieved using long range networks.

Effective range is also highly dependent on the surrounding and obstacles, such as walls and building materials.