CBU-DMX-GATEWAY

User Manual

Made in Italy

CASAMBI

DMX

FEATURES

- CASAMBI© ⇄ DMX PROTOCOL CONVERTER
- Signal converter from CASAMBI© to DMX (and vice-versa)
- Input voltage: 12-24-48 Vdc
- Remote control: via Bluetooth Low Energy (BLE) or DMX bus
- Local control: Normally Open (N.O.) push-button
- Configuration and control via CASAMBI© mobile application
- Extended Temperature Range
- 100% Functional Test - 5 years warranty

PRODUCT DESCRIPTION

CBU-DMX-GATEWAY is a CASAMBI© Bluetooth Unit (CBU) designed to function as protocol converter between CASAMBI© and DMX networks. In Master mode, the CBU receives a command from CASAMBI© Mesh network or mobile app and converts it into a DMX command signal; in Slave mode, the CBU receives a command signal from DMX bus and translate it into a command on CASAMBI© Mesh network (sent over BLE).
Both operating modes Master and Slave can be managed via CASAMBI© mobile app (refer to §*Profiles Overview: Fixtures* for Master/Slave conversion profiles).
The device operates on 12 Vdc, 24 Vdc, or 48 Vdc power supply and features built-in logic control protections, including overvoltage and undervoltage protections, reverse polarity and input-fuse protections.
The CBU-DMX-GATEWAY is equipped with a DIN bar mounting enclosure suitable for 35 mm DIN bars.

Through the CASAMBI© mobile application and smartphones equipped with Bluetooth technology, it is possible to configure multiple values. CASAMBI© mobile application can be downloaded free of charge from the Apple APP Store and Google Play Store.

⇢ For the most up-to-date manual, please visit our website www.dalcnet.com or scan the QR code on product label.
⇢ For the correct functioning of the CASAMBI© mobile app, please visit the forum on the Casambi website: https://support.casambi.com/support/home

PRODUCT CODE

CODE	POWER SUPPLY	MODE	REMOTE CONTROL	OUTPUT	CONFIGURATION
CBU-DMX-GATEWAY	12 ÷ 48 Vdc	Master	CASAMBI© Mesh or Mobile app (BLE)	DMX	CASAMBI© Mobile app
		Slave	DMX	CASAMBI© Mesh (BLE)	

Table 1: Product code

PROTECTIONS AND DETECTION

The following table shows the types of ingress and egress protection/detection present on the device.

ACRONYM	DESCRIPTION	TERMINAL	PRESENT
OVP	Over Voltage Protection [1]	DC IN	✓
UVP	Under Voltage Protection [1]	DC IN	✓
RVP	Reverse Voltage Polarity [1]	DC-IN	✓
IFP	Input Fuse Protection [1]	DC IN	✓

Table 2: Protection and Detection features

REFERENCE STANDARDS

STANDARD	TITLE
ANSI E1.11	Entertainment Technology - USITT DMX512-A - Asynchronous Serial Digital Data Transmission Standard for Controlling Lighting Equipment and Accessories

Table 3: Reference standards

TECHNICAL SPECIFICATIONS

Description	Acronym	Values			Units of Measure	Note
		Min	Typ	Max		
INPUT (DC IN)						
Nominal Supply Voltage	V_{IN}	12	24	48	Vdc	-
Supply Voltage range	V_{IN-RNG}	10.8	÷	52.8	Vdc	-
Standby power absorption	P_{STBY}		< 0.5		W	-
Rated power absorption (max)	$P_{ABS-max}$	@12Vdc	@24Vdc	@48Vdc	-	-
		261	325	464	mW	
BUS (DMX)						
No. of DMX Channels	-	Slave		Master	-	
	DMX_{SIZE}	8		12	-	Adjacent channels
RDM Support	RDM	Not supported			-	-
ENVIRONMENTAL						
Operating Frequencies [2]	f_{OP}	2402	÷	2480	MHz	For CASAMBI© BLE SoC
Maximum Emitted Power [2]	P_{BT-max}			8	dBm	Over Bluetooth transmission
Storage Temperature	T_{STOCK}	-40	÷	+60	°C	Minimum values defined by design
Working Ambient temperature [3]	T_A	-10	÷	+40	°C	Minimum values defined by design
Connector Type	C_{PWR}	Plug-in Screw Terminals			-	-
Wiring Section	WS_{SOLID_PWR}	0.2	÷	3.3	mm^2	-
	WS_{STRAND_PWR}	24	÷	12	AWG	
	WS_{SOLID_BUS}	0.12	÷	1.3	mm^2	
	WS_{STRAND_BUS}	26	÷	16	AWG	
Strip length	WS_{STRIP_PWR}		8		mm	-
	WS_{STRIP_BUS}		7		mm	
Protection class	IP_{CODE}		IP10		-	-
Enclosure Material	M_{CASE}		PC/ABS		-	PolyCarbonate/ABS
Enclosure Attachment	A_{CASE}		DIN rail (35 mm)		-	-
Packaging unit (pieces/units)	UP		1		pcs	-
Dimensions	-	L	A	P		
	MD	92	36	62	mm	Enclosure
	PD	124	48	71	mm	Packaging
Weight	W		88		g	Including packaging

Table 4: Technical specifications

[1] Protections refer to the control logic of the board.
[2] The parameters are derived from the configuration of the Casambi module.
[3] Depends on ventilation conditions

INSTALLATION

WARNING! *Installation and maintenance must always be carried out in the absence of voltage. Before proceeding with the connection of the device to the power supply, make sure that the voltage of the power source is disconnected from the system.*

The device should only be connected and installed by qualified personnel. All applicable regulations, legislation, standards, and building codes must be adhered to. Incorrect installation of the device may cause irreparable damage to the device and connected loads.

Following paragraphs show the diagrams of the module power supply and Bus connections. It is recommended to follow these steps to install the product safely. Ensure that the device is compatible with the DIN rail type you will be using (35 mm DIN rail).

1. Safety first: ensure the Power Supply is disconnected from Mains before starting the installation.
2. Positioning the Device: place the top part of the device on the upper edge of the DIN rail, then slightly tilt the device upwards to hook the top part onto the rail. Push the bottom part of the device towards the DIN rail until you hear a "click," indicating that the device is securely fastened. Ensure that the device is firmly attached to the DIN rail and that there is no movement or play.
3. Electrical connections: connect the electrical wires to the terminals of the device following the next instructions.
    a. Bus wiring: connect the signals of the DATA+, DATA- and COM data buses to the "DMX" connector plug respectively with the symbols "D+" "D-" "COM". Tight the connector screws using a 3 mm flathead screwdriver.
    b. Local control wiring: wire a N.O. push-button to the "IN" connector plug with the symbols "IN1" and "0V". Tight the connector screws using a 3 mm flathead screwdriver.
    c. Power supply wiring: connect a 12-24-48 Vdc constant voltage SELV power supply to the "+" and "-" terminals of the DC IN connector plug. Tight the connector screws using a 3 mm flathead screwdriver.
4. Check the connections: verify that all connections are tightly secured and that there are no exposed wires.
5. Final check: reconnect the power supply and power ON the device. Perform a test to ensure that the device is functioning correctly and that all connections are secure.

Note: the installer is responsible for verifying the installation.

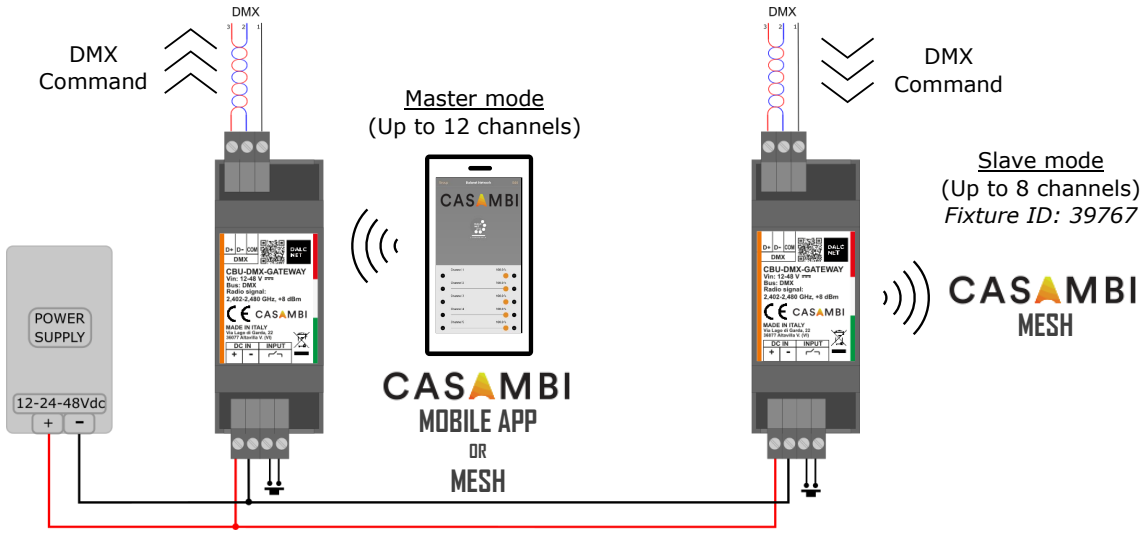


Figure 1: Wiring diagram

BUS WIRING: DMX NETWORK

CBU-DMX-GATEWAY can communicate over DMX digital bus by means of a three-wire, twisted and shielded cable, with a nominal impedance of 110 Ω.

To connect CBU-DMX-GATEWAY to the DMX network, simply connect the bus cables to the terminals of the "DMX" terminal: since no other topologies other than Bus-wiring are possible, the polarity of the "COM", "D+" and "D-" signals must be respected during connection.

The most commonly used connectors are 3 and 5 pole XLR, where one pin is the cable shield (ground) and 2 pins are used for DMX signal transmission. In the case of 5-pole XLR, the other 2 pins are reserved for a secondary DMX balanced line[4].

Signal Description	Pin# (3-Pin XLR)	Pin# (5-Pin XLR)	DMX Function
Common Reference	1	1	Data-Link Common
Primary Data-Link	2	2	Data 1-
	3	3	Data 1+
Secondary Data-Link[4]	-	4	Data 2-
	-	5	Data 2+

Table 5: 3 and 5 pin XLR connector pinouts

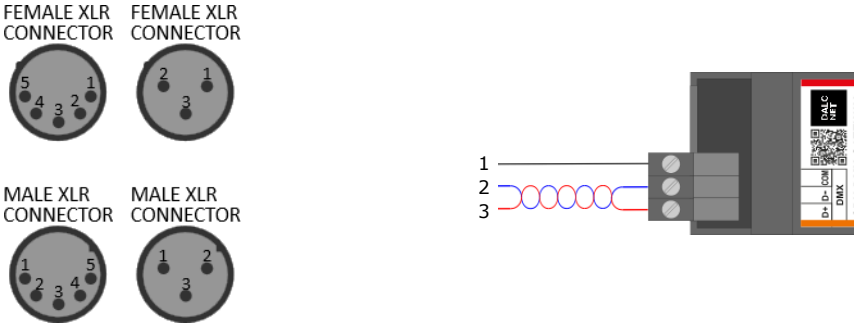


Figure 2: Bus Connection Pin-out and XLR Connectors

DMX Wiring Topology

DMX protocol requires a single wiring topology, Bus-wiring, which is shown as an example in Figure 3 and Figure 4.

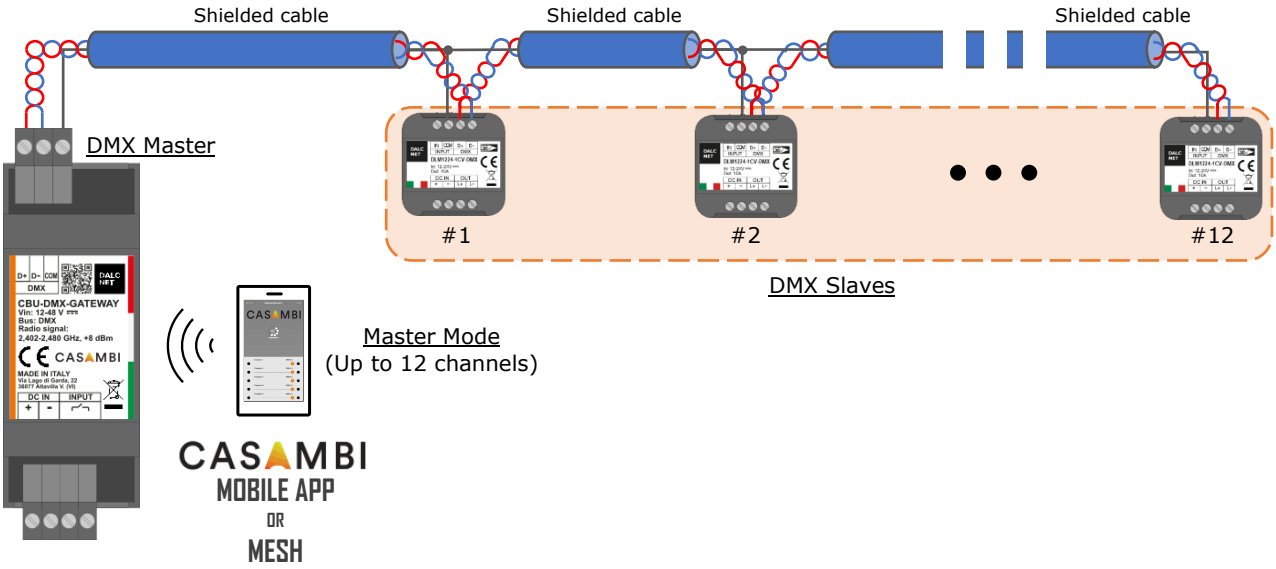


Figure 3: DMX Master, Bus-wiring Topology

[4] Optional, refer to chapter §4.8 of ANSI E1.11.

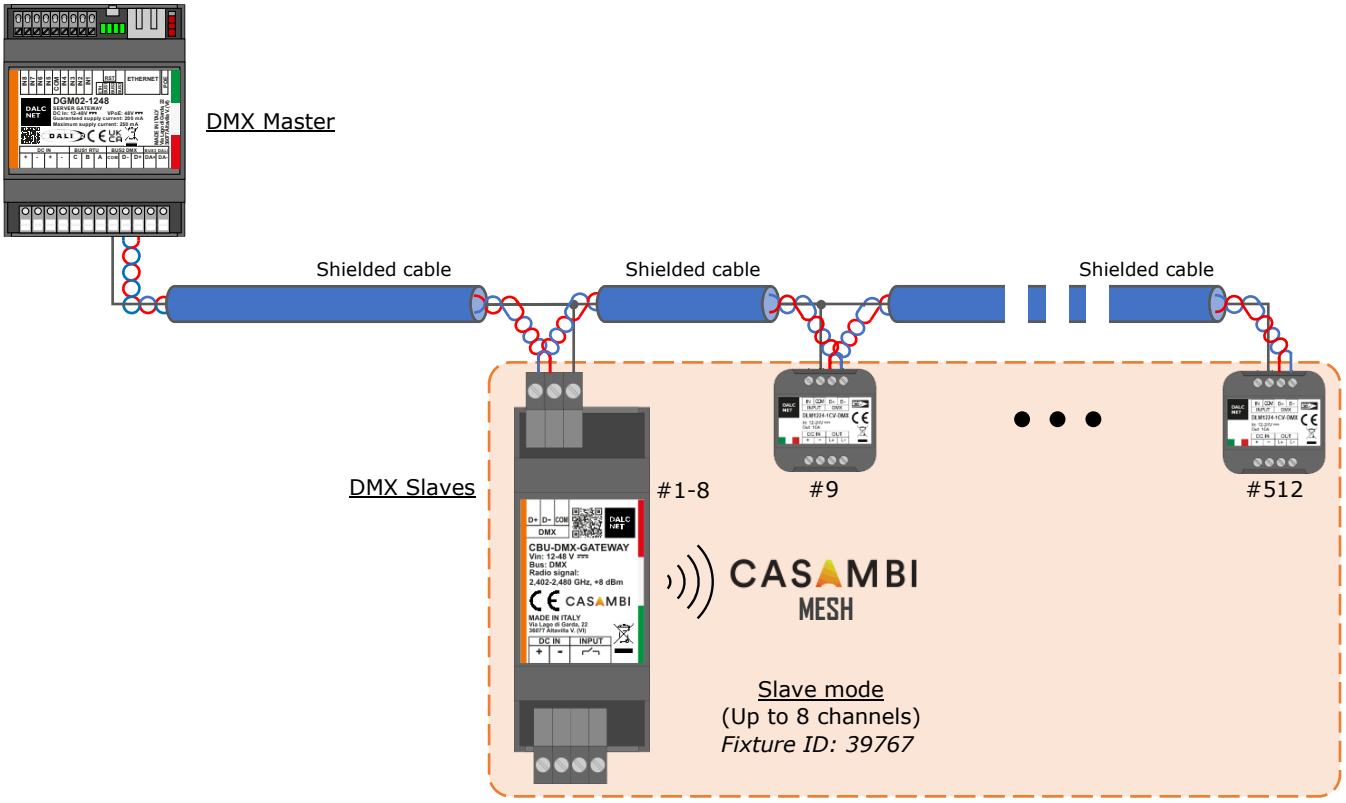


Figure 4: DMX Slave, Bus-wiring Topology

LOCAL COMMAND WIRING

CBU-DMX-GATEWAY can be controlled via Local Command with a Normally Open (N.O.) pushbutton or voltage-free dry contact. No other voltage signals shall be applied to these contacts.

To connect the CBU-DMX-GATEWAY to local command, simply connect the pushbutton to the INPUT terminal. The following image shows the indicated connection diagram for short distances (<10 m).

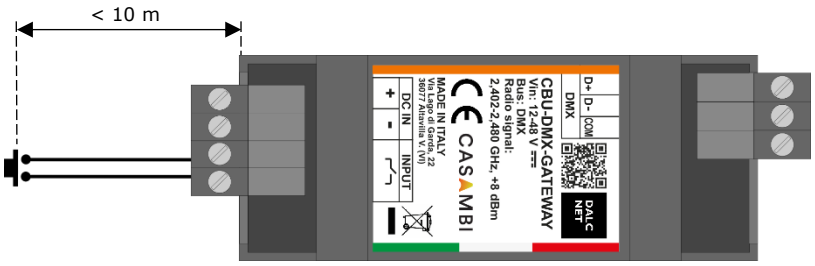


Figure 1: Local Command connection diagram for Short Distances

POWER SUPPLY WIRING

CBU-DMX-GATEWAY can be powered by a 12 Vdc, 24 Vdc or 48 Vdc constant voltage SELV power supply. Once bus and local control are wired, connect the power supply respecting the polarity conventions to the "+" and "-" labels of the DC IN terminal.

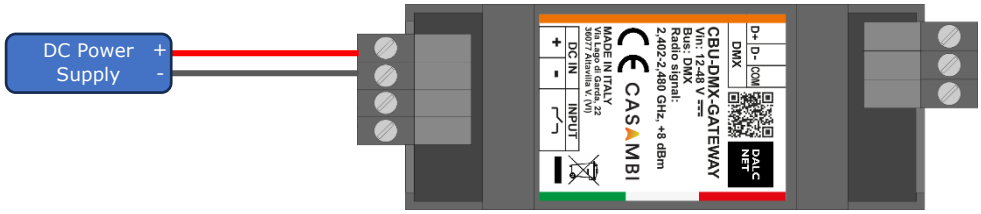


Figure 2: Power Supply wiring Diagram

LOCAL COMMAND: PUSHBUTTON

CBU-DMX-GATEWAY has one dry contacts input for N.O. pushbutton, through which different operating parameters can be managed. Each action on the pushbuttons activates a specific function for the type of control selected via CASAMBI© mobile app. For all other functions consult the documentation of the CASAMBI© mobile app at: https://support.casambi.com/support/home

PUSHBUTTON FUNCTIONALITY FOR "CONTROLS A LUMINAIRE"

In *Controls a Luminaire* mode, both connected buttons take over ON/OFF control and luminaire brightness functions.

ACTION	FUNCTION
Quick press	Turn ON/OFF the selected Luminaire
Long press (> 1s)	Brightness adjustment (Dimming)

Table 6: Pushbutton functionality for "Controls a Luminaire"

PUSHBUTTON FUNCTIONALITY FOR "CONTROLS AN ELEMENT"

In *Controls an Element* mode, the pushbuttons take over ON/OFF control functions dedicated to a fixture element and to adjust the element value.

ACTION	FUNCTION
Quick press	Turn ON/OFF of the selected element
Long press (> 1s)	Element value adjustment

Table 7: Pushbutton functionality for "Control an Element"

PUSHBUTTON FUNCTIONALITY FOR "CONTROL A GROUP"

In *Control a Group* mode, the connected buttons take on functions dedicated to control a group of LED modules and their brightness adjustment.

ACTION	FUNCTION
Quick press	Turn ON/OFF the configured Group of devices
Long press (> 1s)	Brightness adjustment (Dimming)

Table 8: Pushbutton functionality for Control a Group"

PUSHBUTTON FUNCTIONALITY FOR "CONTROL SCENE"

In *Control scene* mode, the buttons take over brightness adjustment and ON/OFF of the programmed scenario.

ACTION	FUNCTION
Quick press	Turn ON/OFF the configured Scene
Long press (> 1s)	Brightness adjustment (Dimming)

Table 9: Pushbutton functionality for "Control scene"

PUSHBUTTON FUNCTIONALITY FOR "CONTROL ALL LUMINAIRES"

In *Control all Luminaires* mode, both connected buttons take over ON/OFF control and brightness functions of all luminaires.

ACTION	FUNCTION
Quick press	Turn ON/OFF all the Luminaires
Long press (> 1s)	Brightness adjustment (Dimming)

Table 10: Pushbutton functionality for "Controls all Luminaires"

PUSHBUTTON FUNCTIONALITY FOR "CYCLES SCENES"

In *Cycles scenes* mode, the buttons take over brightness adjustment and selection through the programmed scenario list.

ACTION	FUNCTION
Quick press	Cycle through the list of scenes
Long press (> 1s)	Brightness adjustment of current scene (Dimming)

Table 11: Pushbutton functionality for "Cycle scenes"

PUSHBUTTON FUNCTIONALITY FOR "ACTIVE/STANDBY"

In *Active/Standby* mode, the buttons take over brightness adjustment and selection between two programmed scenes.

ACTION	FUNCTION
Quick press	Switch between two programmed scenes
Long press (> 1s)	Brightness adjustment of current scene (Dimming)

Table 12: Pushbutton functionality for " Active/Standby"

DMX PROTOCOL

The DMX protocol (or DMX512) is a digital communication standard used primarily for controlling stage lighting in the entertainment industry and allows numerous lights and effects to be controlled from a control room. Recently, it has also been introduced in architectural lighting. The DMX is based on the physical RS-485 protocol: an RS485 industrial line, i.e. a shielded bipolar cable with a nominal impedance of 110Ω, is therefore used to connect a DMX controller to compatible equipment.

The DMX protocol provides for different profiles, depending on the light characteristics to be obtained through the LED module connected to the CASAMBI© dimmers.

Each profile is composed of a defined number of 8-bit channels, whose values can be set in the range (0 ÷ 255), each of which represents a light characteristic (e.g. brightness, colour, saturation, etc.) to be modulated on the LED load.

REMOTE CONTROL & CONFIG.: CASAMBI©

CASAMBI© is a lighting control system based on Bluetooth Low Energy (BLE) technology. This technology allows for the creation of customized and flexible wireless lighting networks that can be easily configured and controlled via Android/iOS devices.

PROFILES OVERVIEW: FIXTURES

CBU-DMX-GATEWAY supports the following fixtures (selectable by CASAMBI© mobile app).

BUS	PROFILE NAME	PROFILE ID	DESCRIPTION
DMX	DMX SLAVE 8CH	39767	**DMX Slave mode** CASAMBI© devices control (up to 8 adjacent channels) from DMX network. Provides controls to set the DMX starting address and refresh rate.
	W	42287	**One channel dimmer** - Dimmer 1: channel 1
	WWWW	42288	**Four channels dimmer** - Dimmer 1: channel 1 - Dimmer 2: channel 2 - Dimmer 3: channel 3 - Dimmer 4: channel 4
	8xW	**42289 (Default)**	**Eight channels dimmer** - Dimmer 1: channel 1 - Dimmer 2: channel 2 - Dimmer 3: channel 3 - Dimmer 4: channel 4 - Dimmer 5: channel 5 - Dimmer 6: channel 6 - Dimmer 7: channel 7 - Dimmer 8: channel 8
	12xW	42386	**Twelve channels dimmer** - Dimmer 1: channel 1 - Dimmer 2: channel 2 - Dimmer 3: channel 3 - Dimmer 4: channel 4 - Dimmer 5: channel 5 - Dimmer 6: channel 6 - Dimmer 7: channel 7 - Dimmer 8: channel 8 - Dimmer 9: channel 9 - Dimmer 10: channel 10 - Dimmer 11: channel 11 - Dimmer 12: channel 12
	TW	42290	**Two channels (Tunable White) dimmer** - Warm White Dimmer: channel 1 - Cool White Dimmer: channel 2
	RGB	42291	**Three channels (RGB) dimmer** - Red Dimmer: channel 1 - Green Dimmer: channel 2 - Blue Dimmer: channel 3
	RGBW	42292	**Four channels (RGBW) dimmer** - Red Dimmer: channel 1 - Green Dimmer: channel 2 - Blue Dimmer: channel 3 - White Dimmer: channel 4
	RGB+TW	42293	**Five channels (RGB + Tunable White) dimmer** - Red Dimmer: channel 1 - Green Dimmer: channel 2 - Blue Dimmer: channel 3 - Warm White Dimmer: channel 4 - Cool White Dimmer: channel 5

BUS	PROFILE NAME	PROFILE ID	DESCRIPTION
	MRGBS	42294	**Five channels (Master + RGB + Strobe) dimmer** - Master Dimmer: channel 1 - Red Dimmer: channel 2 - Green Dimmer: channel 3 - Blue Dimmer: channel 4 - Strobe Rate Channel: channel 5
	MRGBWS	42295	**Six channels (Master + RGBW + Strobe) dimmer** - Master Dimmer: channel 1 - Red Dimmer: channel 2 - Green Dimmer: channel 3 - Blue Dimmer: channel 4 - White Dimmer: channel 5 - Strobe Rate Channel: channel 6

Table 13: Profile list

PROFILE MAPPING

Each Profile can be configured on CASAMBI© mobile application (refer to §Change Profile on Paired device section of this document) and other parameters depending to the selected profile.

DMX SLAVE 8CH: 8 CHANNELS DMX (SLAVE MODE)

Use this profile to control up to 8 CASAMBI© devices from 8 adjacent channels on DMX network, with the proper DMX Starting address and refresh rate of DMX bus. Configuration from CASAMBI© mobile application.

W: 1 CHANNEL

The "W" profile allows you to adjust the DMX level for one independent channel.

DMX Ch.	Function	Level
1	DIMMER 1	0...255

WWWW: 4 CHANNELS

The "WWWW" profile allows you to adjust the DMX level of up to four independent channels.

DMX Ch.	Function	Level
1	DIMMER 1	0...255
2	DIMMER 2	0...255
3	DIMMER 3	0...255
4	DIMMER 4	0...255

8XW: 8 CHANNELS (DEFAULT)

The "8xW" profile allows you to adjust the DMX level of up to eight independent channels.

DMX Ch.	Function	Level
1	DIMMER 1	0...255
2	DIMMER 2	0...255
3	DIMMER 3	0...255
4	DIMMER 4	0...255
5	DIMMER 5	0...255
6	DIMMER 6	0...255
7	DIMMER 7	0...255
8	DIMMER 8	0...255

12xW: 12 Channels

The "12xW" profile allows you to adjust the DMX level of up to twelve independent channels.

DMX Ch.	Function	Level
1	DIMMER 1	0...255
2	DIMMER 2	0...255
3	DIMMER 3	0...255
4	DIMMER 4	0...255
5	DIMMER 5	0...255
6	DIMMER 6	0...255
7	DIMMER 7	0...255
8	DIMMER 8	0...255
9	DIMMER 9	0...255
10	DIMMER 10	0...255
11	DIMMER 11	0...255
12	DIMMER 12	0...255

TW: Tunable White

With the "Tunable White" profile, the Warm White and Cold White values are regulated via two independent DMX channels.

DMX Ch.	Function	Level
1	WARM WHITE DIMMER	0...255
2	COLD WHITE DIMMER	0...255

RGB

Through the "RGB" profile it is possible to adjust the intensity of the primary colours Red-Green-Blue through three independent DMX channels.

DMX Ch.	Function	Level
1	RED DIMMER	0...255
2	GREEN DIMMER	0...255
3	BLUE DIMMER	0...255

RGBW

Like to the "RGB", the "RGBW" profile allows the intensity of the Red-Green-Blue primary colours to be adjusted through three independent DMX channels and in addition the white light adjustment on a dedicated DMX channel.

DMX Ch.	Function	Level
1	RED DIMMER	0...255
2	GREEN DIMMER	0...255
3	BLUE DIMMER	0...255
4	WHITE DIMMER	0...255

RGB+TW

The "RGB+TW" profile allows the intensity of the Red-Green-Blue primary colours to be adjusted through three independent DMX channels and in addition the Warm White and Cold White light adjustment on a dedicated DMX channels.

DMX Ch.	Function	Level
1	RED DIMMER	0...255
2	GREEN DIMMER	0...255

DMX Ch.	Function	Level
3	BLUE DIMMER	0...255
4	WARM WHITE DIMMER	0...255
5	COLD WHITE DIMMER	0...255

MRGBS: MASTER + RGB + STROBE

The "MRGBS" profile allows to change light parameters over 5 DMX channels, one of which is for adjusting the light intensity (Master dimmer), three channels for adjusting the primary colours Red-Green-Blue and one channel to set the Strobe effect.

DMX Ch.	Function	Level
1	MASTER DIMMER	0...255
2	RED DIMMER	0...255
3	GREEN DIMMER	0...255
4	BLUE DIMMER	0...255
5	STROBE RATE	0...255

MRGBWS: MASTER + RGBW + STROBE

Like the "MRGBS", the "MRGBWS" profile allows to change light parameters over 6 DMX channels, one for the light intensity (Master dimmer), three channels to adjust the primary colours Red-Green-Blue, one channel to set the Strobe effect and a dedicated DMX channel for the white light adjustment.

DMX Ch.	Function	Level
1	MASTER DIMMER	0...255
2	RED DIMMER	0...255
3	GREEN DIMMER	0...255
4	BLUE DIMMER	0...255
5	WHITE DIMMER	0...255
6	STROBE RATE	0...255

MECHANICAL DIMENSIONS

Figure 5 details the mechanical measurements and overall dimensions [mm] of the outer casing.

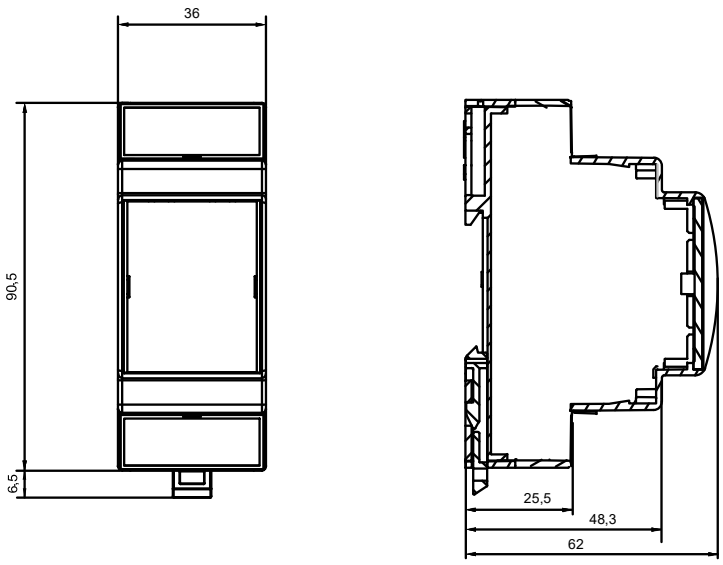


Figure 5: Mechanical dimensions

TECHNICAL NOTES

INSTALLATION

WARNING! Installation and maintenance should always be performed in the absence of DC voltage.
Before proceeding with the installation, adjustment, and connection of the device to the power supply, make sure that the voltage is disconnected from the system.

The device should only be connected and installed by qualified personnel. All applicable regulations, legislation, standards, and building codes in force in the respective countries must be adhered to. Incorrect installation of the device may cause irreparable damage to the device and connected loads.

Maintenance must only be carried out by qualified personnel in compliance with current regulations.

The product must be installed inside an electrical panel and/or junction box that is protected against surges/overvoltage and not shielded.

The product is suitable for use in dry places, away from sources of moisture. Installation and use must take place in a dry environment.

The external power supply must be protected. The product must be protected by a properly sized circuit breaker with overcurrent protection.

Keep 230 Vac (LV) circuits and non-SELV circuits separate from SELV safety ultra-low voltage circuits and any product connections. It is strictly forbidden to connect, for any reason, directly or indirectly, the 230 Vac mains voltage to the product (BUS terminals included).

The product must be installed in a vertical or horizontal position, i.e. with the faceplate/label/top cover facing up or vertically. No other positions are allowed. The bottom position, i.e. with the faceplate/label/top cover facing downwards, is not allowed.

During installation, it is recommended to reserve adequate space around the device to facilitate its accessibility in case of future maintenance or updates (e.g. via smartphone).

Use in thermally harsh environments may limit the output power of the product.

For devices embedded within luminaires, the T_A ambient temperature range is a guideline to be carefully observed for the optimal operating environment. However, the integration of the device within the luminaire must always ensure proper thermal management (e.g. correct mounting of the device, proper ventilation, etc.) so that the temperature at the T_C point does not exceed its maximum limit under any circumstances. Proper operation and durability are only guaranteed if the maximum temperature of the T_C point is not exceeded under the conditions of use.

POWER SUPPLY AND CONTROLS

The device must be powered only with SELV type power supplies with limited current at constant voltage, short circuit protection and power suitably sized according to the specifications indicated in the product data sheet. No other types of power supplies are allowed.

Size the power of the power supply respect to the device. If the power supply is oversized compared to the maximum current drawn, insert an overcurrent protection between the power supply and the device.

Connecting to an unsuitable power supply may cause the device to operate outside of the specified design limits, voiding its warranty.

In the case of power supplies equipped with earth terminals, it is mandatory to connect ALL the protection earth points (PE= Protection Earth) to a state-of-the-art and certified earthing system.

The power cables of the device must be correctly sized with reference to the connected load and must be isolated from any wiring or equal to non-SELV voltage. It is recommended not to exceed 10m of connection between the power source and the product. Use double-insulated cables. If you want to use connection cables between the power source and the product longer than 10m, the installer must ensure the correct operation of the system. In any case, the connection between the power supply and the product must not exceed 30m.

The manufacturer recommends ensuring a cumulative leakage current of less than 3.5 mA on the control circuit.

It is strictly forbidden to connect, for any reason, directly or indirectly, any type of Voltage supply to the terminals of the BUS.

The length and type of bus connection cables must comply with the specifications of the respective protocols and current regulations. They must be isolated from any wiring or non-SELV live parts. It is recommended to use double-insulated cables.

All control devices and signals connected to the buses must be of the SELV type (the connected devices must be SELV or in any case provide a SELV signal).

The length of the connection cables between the local controls (N.O. buttons) and the product must be less than 10m. The cables must be sized correctly. Depending on the connection used, they must be isolated from any wiring or non-SELV voltage parts. It is recommended to use double-insulated cables, if deemed appropriate, also shielded.

All devices and control signals connected to local commands with the symbol must not supply any type of voltage.

BLUETOOTH LOW ENERGY (BLE) WARNINGS AND MOBILE APP NOTES

The BLE antenna is located inside the device.

BLE typically has a range of about 10 to 50 meters, depending on the environment and obstacles. Ensure your devices are within this range for reliable communication.

Walls, floors, and other physical barriers can significantly reduce the effective range and signal strength of BLE devices. Position devices to minimize these obstacles.

Other electronic devices, especially those operating on the 2.4 GHz frequency (like Wi-Fi routers), can interfere with BLE signals. Keep BLE devices away from such sources of interference.

Ensure that all devices in your BLE network are compatible with each other and support the same BLE version. Incompatibilities can lead to communication issues.

BLE is designed for low power consumption, but the battery life of your control devices (smartphone or tablet) can still be affected by factors like transmission frequency and data volume. Monitor and manage power settings to optimize battery life.

BLE technology works optimally with non-metallic materials. Therefore, it is not recommended to surround the device by metal objects or reflective surfaces when using BLE communication.

For reliable communication, make sure that the top surface is not covered or that it is free of metal objects, wiring, or other electronic devices. Any impediments could affect the quality of communication.

To guarantee the best performances and the full use of functions, make sure to download on your device the last release of CASAMBI© mobile app.

Whenever CASAMBI© mobile app requires an upgrade of the profile installed in the product, follow the instruction to do it. This allows you to stay always up to date and benefit of new functions released.

Functionality test are done on all devices to ensure the right working. In case the device is still paired to "Dalcnet network", you are asked to unpair it by following the instructions on CASAMBI© mobile app and in §Unpair device from CASAMBI© Network section.

LEGAL NOTES

TERMS OF USE

Dalcnet Srl (hereinafter referred to as "the Company") reserves the right to make changes to this device, in whole or in part, without prior notice to the customer. Such changes may affect technical aspects, functionality, design, or any other element of the device. The company is not required to notify you of such changes and that your continued use of the device will constitute your acceptance of the changes.

The company is committed to ensuring that any changes do not compromise the essential functionality of the device and that they comply with applicable laws and regulations. In the event of substantial changes, the company undertakes to provide clear and timely information on the same.

The customer is advised to periodically consult the www.dalcnet.com website or other official sources to check for any updates or changes to the device.

SYMBOLS

CE	All products are manufactured in compliance with European Regulations, as reported in the Declaration of Conformity.
IP10	It represents the degree of protection guaranteed by the casing of a product and is defined by IEC 60529.
	At the end of its useful life, the product described in this data sheet is classified as waste from electronic equipment and cannot be disposed of as unsorted municipal solid waste. **Warning!** Improper disposal of the product may cause serious harm to the environment and human health. For proper disposal, inquire about the collection and treatment methods provided by the local authorities.

CASAMBI

CASAMBI© is the official application through which it is possible to configure, in addition to the functions of the CBU-DMX-GATEWAY, also all the different CASAMBI© products equipped with BLE technology.

CASAMBI© mobile app can be downloaded free of charge from the Apple App Store and Google Play Store.

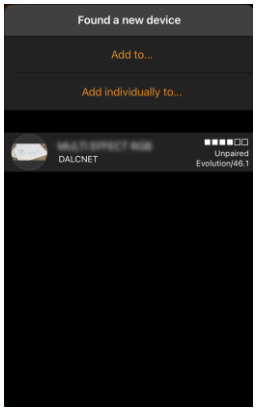
GET IT ON Google Play

Available on the App Store

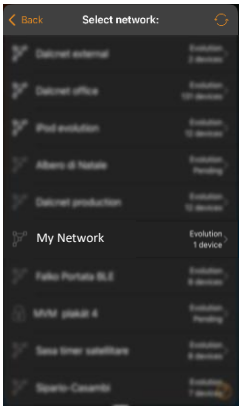
DEVICE SETTINGS

PAIR DEVICE TO CASAMBI© NETWORK

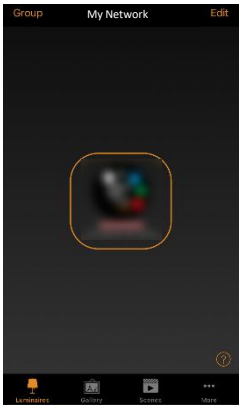
The first time you turn ON a CBU-DMX-GATEWAY device, it will appear in the "Found a new device" section with the default profile preloaded. Perform the following procedure to Pair the device to a CASAMBI© Network.



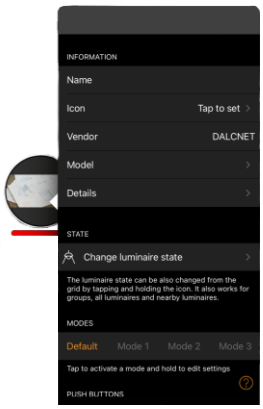
1. Open the CASAMBI© mobile app and Power ON the device. The device to be paired will appear.
2. Select "Add to…" to open the list of available networks.



3. Select the network to pair the device with.



4. Once the device has been inserted in the Network, the default profile will be loaded.



5. Double tap on the profile icon to show the device configuration.

UNPAIR DEVICE FROM CASAMBI© NETWORK

If CBU-DMX-GATEWAY is already connected to a known network and/or you wish to associate it with a new network, you need to unpair the device from the current Network first: please tap the device icon from *Nearby Devices* section, select *Unpair*, and confirm. The unpair process will be started. After the unpairing, the device can be paired to a new Network by following the instructions on above section.

To unpair a device already connected to an unknown Network (for which you don't have the credentials), please follow these steps:

1. Tap the device icon from *Nearby Devices* section, select *Unpair*, and confirm.
2. During the unpair process, turn OFF the Power Supply connected to the CBU-DMX-GATEWAY.
3. Wait 1-2 seconds, then turn the Power Supply ON again.
4. On *Nearby Devices* section the device will be shown as unpaired.

Note: if the power supply is switched OFF and ON again quickly, unpair may not be done properly. Repeat the unpair sequence by allowing 1 or 2 more seconds to elapse between the moment you turn OFF and re-turn ON the Power Supply.

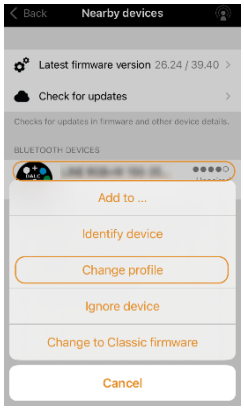
Another method to unpair the device from an unknown Network can be performed using a N.O. push-button connected to the "INPUT" terminal of the CBU-DMX-GATEWAY, following the next steps:

1. Tap the device icon from *Nearby Devices* section, select *Unpair*, and confirm.
2. During the unpair process, quick press the N.O. push-button.
3. After a while, on *Nearby Devices* section the device will be shown as unpaired.

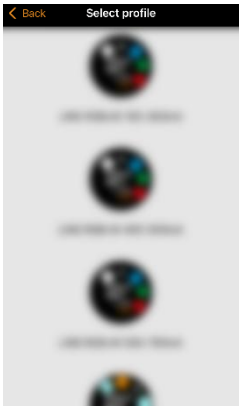
CHANGE PROFILE ON PAIRED DEVICE

Once the technical data of the load to be controlled have been verified, it is possible to configure the parameters for the selected profile by loading the Fixture on the controller. To change the Fixture on the CBU-DMX-GATEWAY, follow these steps.

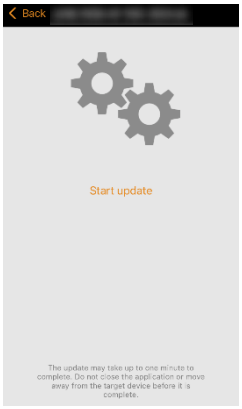
1. Power ON the device and open the CASAMBI© mobile app.
2. Select *Nearby Devices*.



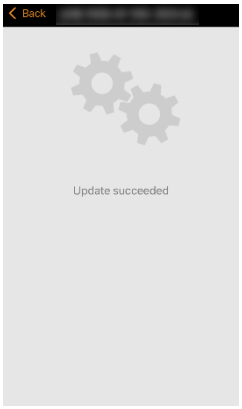
3. Tap on device's icon, then tap on *Unpair*.
4. Second tap on device's icon, then tap on *Change profile*.



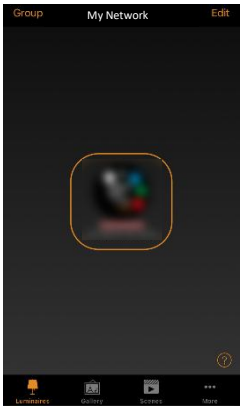
5. Select the desired profile (refer to Table 13).



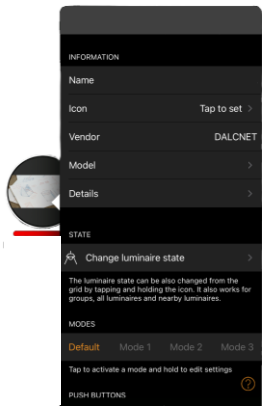
6. Tap *Start Update*.



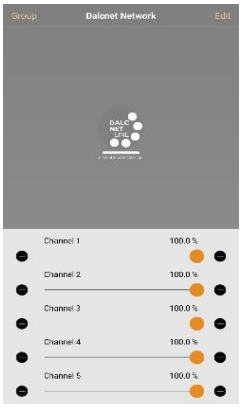
7. Wait for the profile to load correctly.
8. Back to *Nearby Devices* and select *Add to 'Network name'* to pair on the previous Network.



9. Once the device has been added to the Network, go back to *Luminaires* sheet and double tap on the profile icon to show the device configuration.



10. Hold tap on profile icon to show the profile settings.

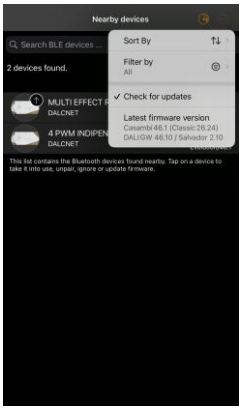


11. Inside, the profile settings can be customized by the provided sliders and buttons.

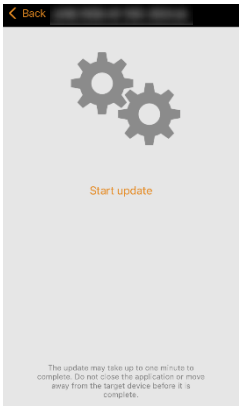
FIRMWARE UPDATE ON PAIRED DEVICE

From CASAMBI© mobile app it is possible to update the device's firmware. To check and load any update to the CBU-DMX-GATEWAY, follow these steps.

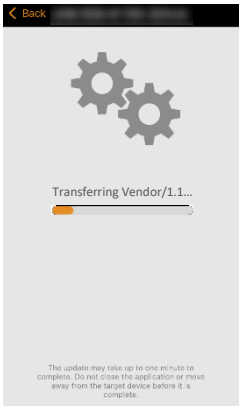
1. Power ON the device and open the CASAMBI© mobile app.
2. Select *Nearby Devices*, *More* sheet, then tap the Meatball menu ⋯ and *Check for updates*.



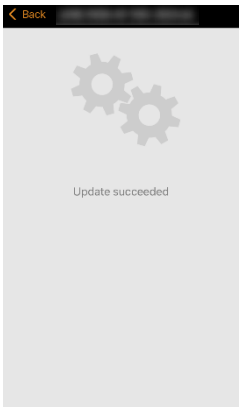
3. After checking for updates, if an update is available a small upward arrow will appear on device icon. Tap on device icon, then select *Update vendor firmware*.



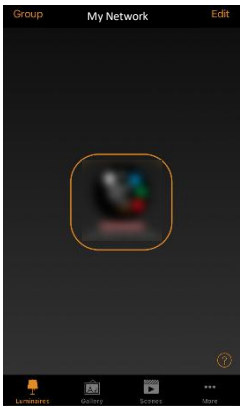
4. Tap *Start Update* on the next page. The transfer of the new Firmware will start.



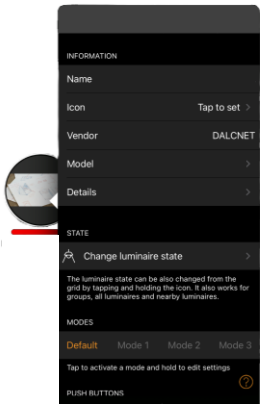
5. Please wait for the update, it may take up to three minutes or so.



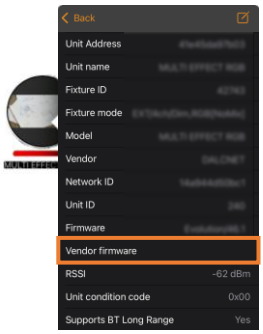
6. After the update and verification are successful, return to *Luminaires* sheet. Previous profile will be loaded.



7. Double tap on the profile icon to show the device configuration settings.



8. Tap on Details to show the device info.



9. The firmware version can be viewed under *Vendor Firmware* item.