



CASAMBI



DMX

## FEATURES

- ◆ CASAMBI ↔ DMX PROTOCOL CONVERTER
- ◆ Signal converter from CASAMBI to DMX (and viceversa)
- ◆ Input voltage: 230 Vac @50/60 Hz
- ◆ 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
- ◆ Long Range on Evolution networks supported
- ◆ 100% Functional Test - 5 years warranty

## PRODUCT DESCRIPTION

SLIM-CBU-DMX 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 Mains voltage 230 Vac @50/60 Hz power supply and features built-in logic control protections, including overvoltage and input-fuse protections.

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](http://www.dalcnet.com) or scan the QR code on product.

→ 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      |
|--------------|-------------------|--------|----------------------------------|--------------------|--------------------|
| SLIM-CBU-DMX | 230 Vac @50/60 Hz | 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 <sup>1</sup> | AC IN    | ✓       |
| IFP     | Input Fuse Protection <sup>1</sup>   | AC 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

<sup>1</sup> Protections refer to the control logic of the board.

## TECHNICAL SPECIFICATIONS

| Description                               | Acronym              | Values               |        |      | Units of Measure | Note                             |
|-------------------------------------------|----------------------|----------------------|--------|------|------------------|----------------------------------|
|                                           |                      | Min                  | Typ    | Max  |                  |                                  |
| INPUT (AC IN)                             |                      |                      |        |      |                  |                                  |
| Nominal Supply Voltage                    | V <sub>IN</sub>      | 230                  |        |      | Vac              | -                                |
| Supply Voltage range                      | V <sub>IN-RNG</sub>  | 100                  | ÷      | 240  | Vac              | -                                |
| Mains frequency                           | f <sub>MAINS</sub>   | 50                   | or     | 60   | Hz               | -                                |
| Rated power absorption (max) <sup>2</sup> | P <sub>ABS-max</sub> | -                    | -      | 2    | W                | @230 Vac                         |
| Standby power absorption                  | P <sub>STBY</sub>    | < 0.5                |        |      | W                | -                                |
| BUS OUTPUT (DMX)                          |                      |                      |        |      |                  |                                  |
| No. of DMX Channels                       | -                    | Slave                | Master |      | -                | Adjacent channels                |
|                                           | DMX <sub>SIZE</sub>  | 8                    | 12     |      | -                |                                  |
| RDM Support                               | RDM                  | Not supported        |        |      | -                | -                                |
| BLUETOOTH (CASAMBI BLE SoC module)        |                      |                      |        |      |                  |                                  |
| Operating Frequencies <sup>3</sup>        | f <sub>OP</sub>      | 2402                 | ÷      | 2480 | MHz              | -                                |
| Maximum Emitted Power <sup>3</sup>        | P <sub>BT-max</sub>  | -                    | -      | 8    | dBm              | Over Bluetooth transmission      |
| Bluetooth version                         | BT <sub>VER</sub>    | BLE 4.0/5.0, BT mesh |        |      | -                | Bluetooth Low Energy (BLE)       |
| Communication protocol                    | CP                   | CASAMBI              |        |      | -                | -                                |
| ENVIRONMENTAL                             |                      |                      |        |      |                  |                                  |
| Storage Temperature                       | T <sub>STOCK</sub>   | -40                  | ÷      | +60  | °C               | Minimum values defined by design |
| Working Ambient temperature <sup>2</sup>  | T <sub>A</sub>       | -25                  | ÷      | +60  | °C               | Minimum values defined by design |
| Max Temperature @T <sub>c</sub> point     | T <sub>C</sub>       | -                    | -      | +65  | °C               | -                                |
| Connector Type                            | C <sub>TYPE</sub>    | Push-in terminals    |        |      | -                | -                                |
| Wiring Section                            | WS <sub>SOLID</sub>  | 0.5                  | ÷      | 1.5  | mm <sup>2</sup>  | -                                |
|                                           | WS <sub>STRAND</sub> | 20                   | ÷      | 16   | AWG              |                                  |
| Strip length                              | WS <sub>STRIP</sub>  | 10                   |        |      | mm               | -                                |
| Protection class                          | IP <sub>CODE</sub>   | IP20                 |        |      | -                | -                                |
| Enclosure Material                        | M <sub>CASE</sub>    | PC/ABS               |        |      | -                | Polycarbonate/ABS                |
| Enclosure Fixing                          | F <sub>CASE</sub>    | Screw fixing slots   |        |      | -                | -                                |
| Packaging unit (pieces/units)             | UP                   | 1                    |        |      | pcs              | -                                |
| Dimensions                                | -                    | L                    | A      | P    |                  | -                                |
|                                           | MD                   | 136                  | 29     | 21   | mm               | Enclosure                        |
|                                           | PD                   | 147                  | 34     | 29   | mm               | Packaging                        |
| Weight                                    | W                    | 62                   |        |      | g                | Packaging included               |

Table 4: Technical specifications

## T<sub>C</sub> POINT POSITIONING

The following figure shows the position of the maximum temperature point (*T<sub>C</sub> point*, highlighted in red) reached by the electronics inside the enclosure, located on the front (Top) side.



Figure 1: Position of the T<sub>C</sub> point

<sup>2</sup> Depends on ventilation conditions.

<sup>3</sup> The parameters are derived from the configuration of the Casambi module.

## 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 wiring diagrams and Bus connections. It is recommended to follow these steps to install the product safely.



1. **Safety first:** ensure the Mains Supply is disconnected before starting the installation.
2. **Electrical connections:** connect the electrical wires to the terminals of the device following the next instructions.
  - a. **Bus wiring:** wire the signals DATA+, DATA- and COMMON of the data bus to the "DMX" terminals respectively with the symbols "D+" "D-" "COM" (both of "COM" terminals can be used).
  - b. **Local control wiring:** wire a N.O. push-button to the "PUSH" terminal with the symbol . Make sure not to connect any live parts to the PUSH terminals.
  - c. **Power supply wiring:** connect the 230 Vac @50/60 Hz Mains voltage "L" (Live) and "N" (Neutral) wires to the AC IN terminal.
3. **Check the connections:** verify that all connections are tightly secured and that there are no exposed wires.
4. **Final check:** reconnect the Mains voltage 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.*

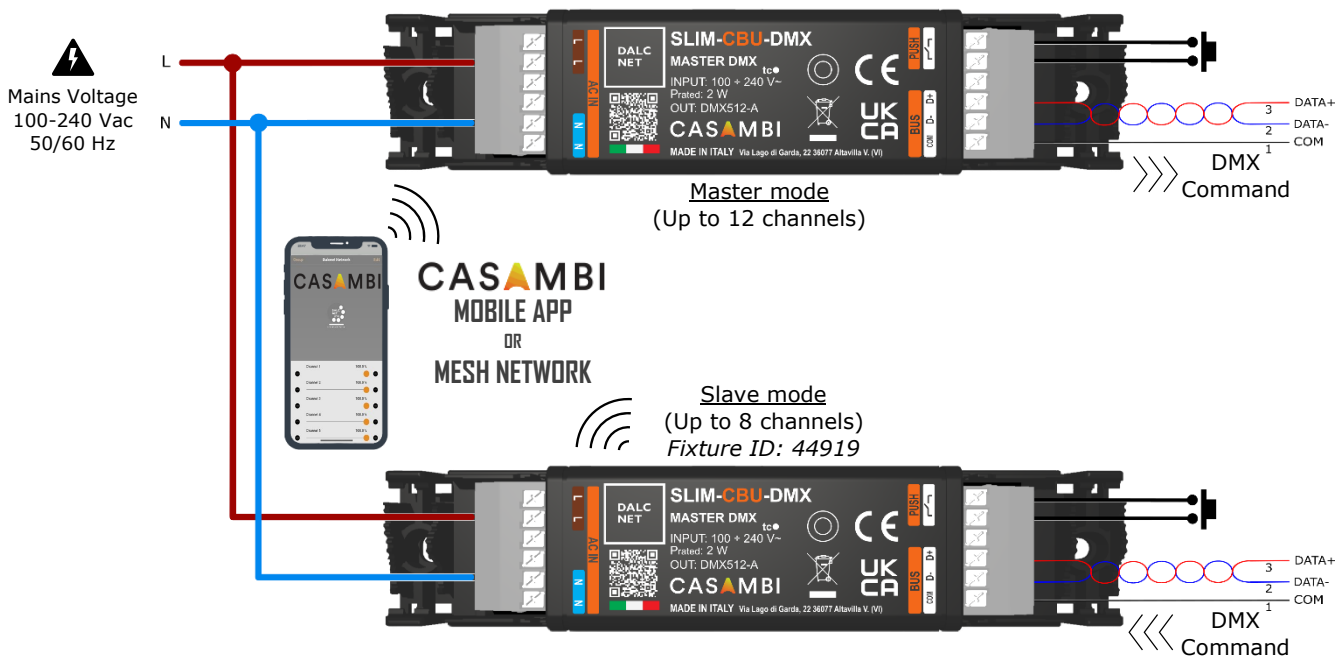


Figure 2: Wiring diagram

The Master or Slave operating modes can be selected using the dedicated CASAMBI Fixtures, listed in Table 8.

## BUS WIRING: DMX NETWORK

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

 To connect SLIM-CBU-DMX 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<sup>4</sup>.

| 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 <sup>4</sup> | -                | 4                | Data 2-          |
|                                  | -                | 5                | Data 2+          |

Table 5: Three and Five pin XLR connector pinouts

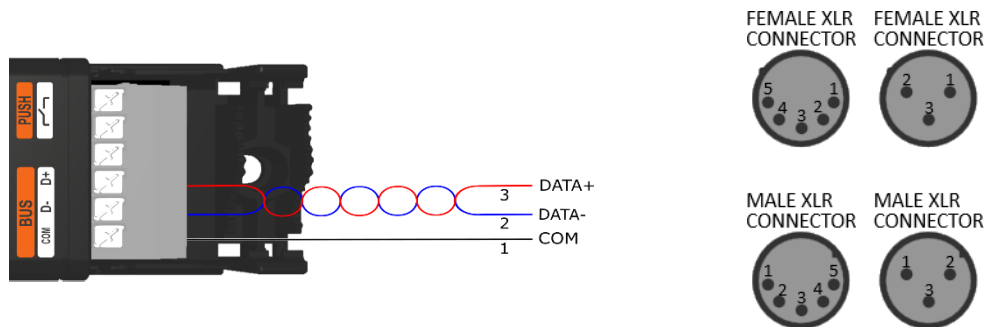


Figure 3: Bus Connection Pin-out and XLR Connectors

## DMX WIRING TOPOLOGY

DMX protocol requires a single wiring topology, Bus-wiring, which is shown as an example in Figure 4 (DMX Master mode) and Figure 5 (DMX Slave mode).

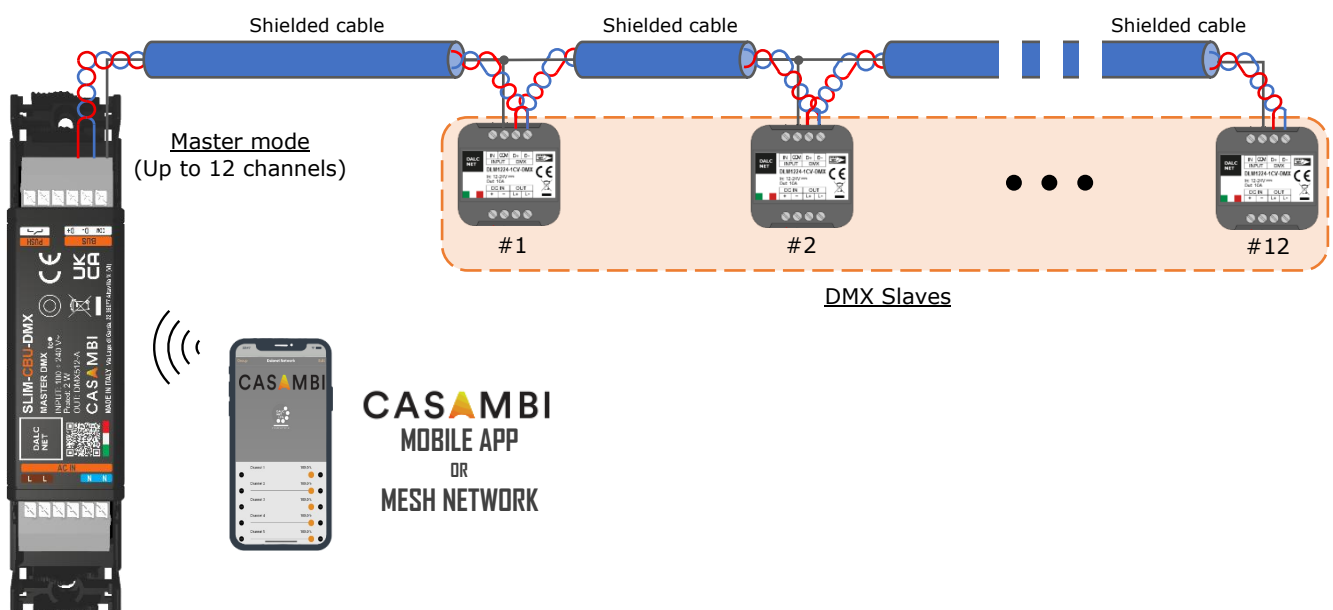


Figure 4: DMX Master, Bus-wiring Topology

<sup>4</sup> Optional, refer to chapter §4.8 of ANSI E1.11.

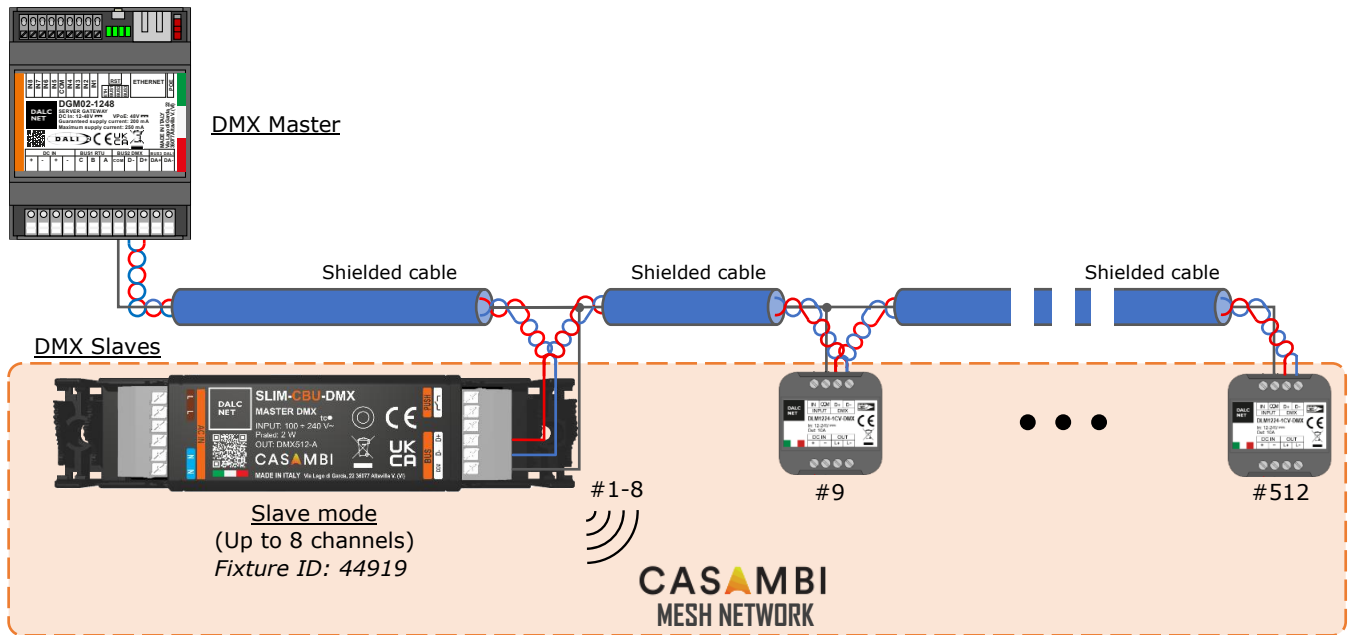


Figure 5: DMX Slave, Bus-wiring Topology

## LOCAL COMMAND WIRING

SLIM-CBU-DMX 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 SLIM-CBU-DMX 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 6: Local Command connection diagram for Short Distances

## MAINS VOLTAGE SUPPLY WIRING

 SLIM-CBU-DMX can be powered by 230 Vac @50/60 Hz Mains voltage supply. Once bus and local control are wired, connect the Mains voltage supply respecting the polarity conventions to the Live (L) and Neutral (N) labels of the AC IN terminal.



Figure 7: Mains voltage Supply wiring Diagram

## LOCAL CONTROL: PUSHBUTTON

SLIM-CBU-DMX has one terminal for N.O. pushbutton or dry contact input, through which different operating parameters can be managed. Each action on the pushbutton activates a specific function for the type of control selected via CASAMBI mobile app.

CASAMBI mobile app provides up to 7 operating modes that can be associated with the button press, listed below:

1. Controls a Luminaire: the pushbutton takes over ON/OFF control and luminaire brightness functions.
2. Controls an Element: the pushbutton takes over ON/OFF functions dedicated to a device element inside the CASAMBI network and to adjust the element value.
3. Control a Group: the button takes on function dedicated to control a group of LED modules and their brightness.
4. Control scene: the button takes over brightness adjustment and turns ON/OFF the programmed scenario.
5. Control all Luminaires: the button takes over ON/OFF control and brightness functions of all luminaires.
6. Cycles scenes: the button takes over brightness adjustment and selection through the programmed scenario list.
7. Active/Standby: the button takes over brightness adjustment and selection between two programmed scenes.

Following table resumes the Pushbutton functionality of all operating modes.

| ACTION<br>FUNCTION     |                                                                                               |                                                                                                       |
|------------------------|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
|                        |  QUICK PRESS |  LONG PRESS (> 1s) |
| Controls a Luminaire   | Turns ON/OFF the selected Luminaire                                                           | Brightness adjustment (Dimming)                                                                       |
| Controls an Element    | Turns ON/OFF the selected device element                                                      | Element value adjustment                                                                              |
| Controls a Group       | Turns ON/OFF the configured Group of devices                                                  | Brightness adjustment (Dimming)                                                                       |
| Control Scene          | Turns ON/OFF the configured Scene                                                             | Brightness adjustment (Dimming)                                                                       |
| Control all Luminaires | Turns ON/OFF all the Luminaires                                                               | Brightness adjustment (Dimming)                                                                       |
| Cycles Scenes          | Cyclic scroll through the list of scenes                                                      | Brightness adjustment of current scene (Dimming)                                                      |
| Active / Standby       | Switches between two programmed scenes                                                        | Brightness adjustment of current scene (Dimming)                                                      |

Table 6: Pushbutton functionality

For all other functions consult the documentation of the CASAMBI mobile app at: <https://support.casambi.com/support/home>

## 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.

## THERMAL CHARACTERIZATION

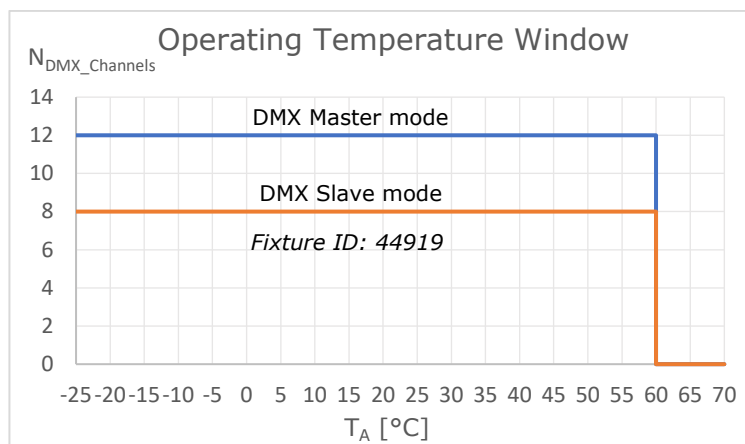


Figure 8: Operating Temperature Window

Figure 8 shows the maximum number of DMX channels that can be controlled by the SLIM-CBU-DMX as a function of the operating temperature<sup>5</sup> (or ambient temperature, T<sub>A</sub>) of the operation, summarized below:

- ♦ Master mode: T<sub>A</sub> = (-25 ÷ +60) °C → N<sub>DMX\_Ch</sub> ≤ 12
- ♦ Slave mode: T<sub>A</sub> = (-25 ÷ +60) °C → N<sub>DMX\_Ch</sub> ≤ 8

These maximum values can only be applied under suitable ventilation conditions.

## MECHANICAL DIMENSIONS

Following figure details the mechanical measurements and overall dimensions [mm] of the outer casing.

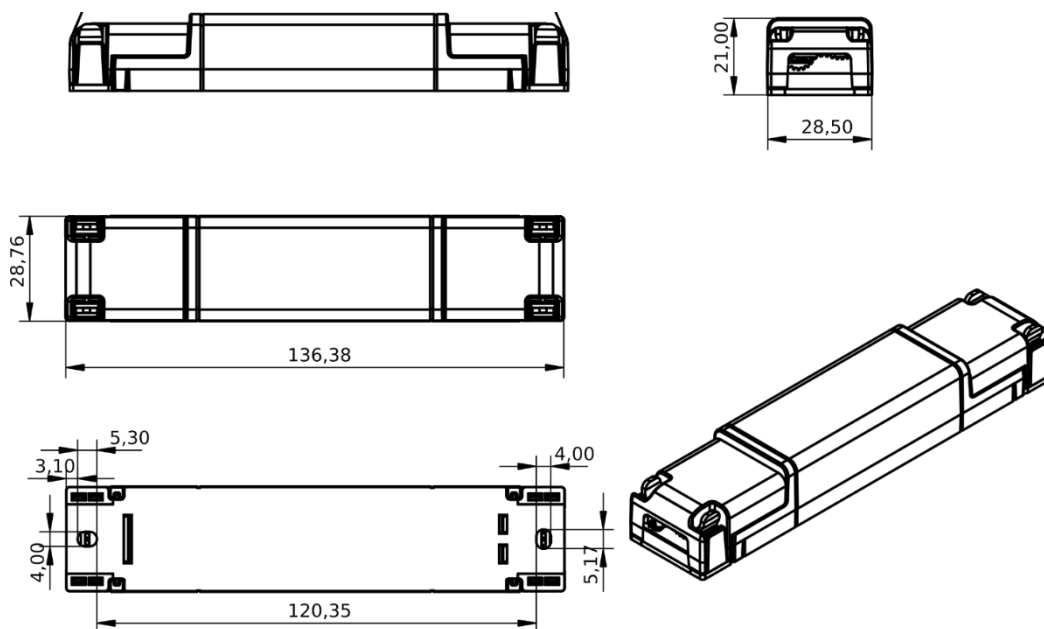


Figure 9: Mechanical dimensions

<sup>5</sup> If the product is installed inside an electrical panel and/or junction box, T<sub>A</sub> refers to the temperature inside the panel/box.

## TECHNICAL NOTES

### INSTALLATION



**WARNING!** Installation and maintenance should always be performed in the absence of AC voltage. Before proceeding with the installation, adjustment, and connection of the device to the Mains supply, make sure that the Mains voltage is disconnected and/or isolated 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.

Keep 230 Vac (LV) circuits and non-SELV circuits separate from SELV safety ultra-low voltage circuits and any product connections.

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 Mains voltage supply 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.

The external supply must be protected. The product must be protected by a properly sized Miniature Circuit Breaker (MCB) with overcurrent protection.

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. Use double-insulated cables.

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 (i.e. by means of a three-wire, twisted and shielded cable, with a nominal impedance of 110  $\Omega$ ) 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).



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

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

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.

### 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



Digimax 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](http://www.dalcnet.com) website or other official sources to check for any updates or changes to the device.

## SYMBOLS

|                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | All products are manufactured in compliance with European Regulations, as reported in the Declaration of Conformity.                                                                                                                                                                                                                                                                                             |
|  | Integrated electronic ballast with double or reinforced insulation, designed to be used as a component of an end product.                                                                                                                                                                                                                                                                                        |
|  | All products are manufactured in compliance with UK Regulations and conform to UK safety, health, and environmental requirements for products sold in the UK, as reported in the UK Conformity Assessed.                                                                                                                                                                                                         |
|  | 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.<br><b>Warning!</b> 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. |

Table 7: Device's symbols

## CASAMBI



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

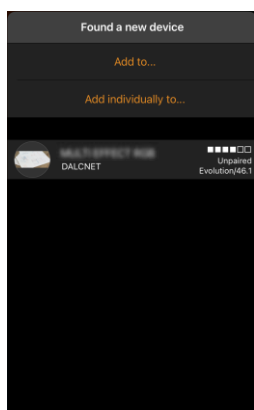
CASAMBI mobile app can be downloaded free of charge from the Apple App Store and Google Play Store.



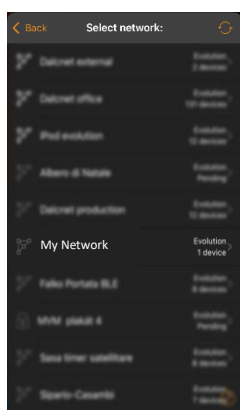
### DEVICE SETTINGS

#### PAIR DEVICE TO CASAMBI NETWORK

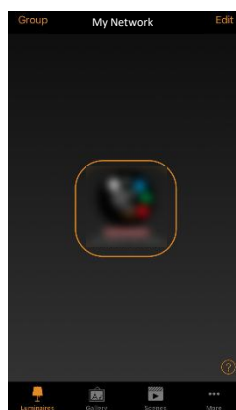
The first time you turn ON a SLIM-CBU-DMX device, it will appear in the "Found a new device" section with the default profile preloaded. Perform the following procedure to Pair the device to a CASAMBI Network.



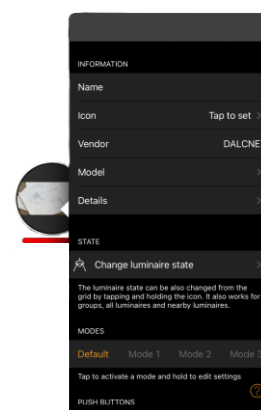
1. Open the CASAMBI mobile app and Power ON the device. The device to be paired will appear.
2. Select *Add to...* to open the list of available networks.



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.

*Note: SLIM-CBU-DMX supports all the Radio Settings modes, including Long Range. See the following website for more information → <https://support.casambi.com/support/solutions/articles/12000074087-create-a-network>*

#### UNPAIR DEVICE FROM CASAMBI NETWORK

If SLIM-CBU-DMX 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 (refer to 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 SLIM-CBU-DMX.
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 SLIM-CBU-DMX, following the next steps:

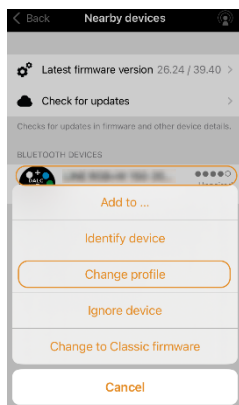
1. Tap the device icon from *Nearby Devices* section, select *Unpair*, and confirm.
2. During the unpair process, quick press the N.O. push-button.
3. After a while, on *Nearby Devices* section the device will be shown as unpaired.

### CHANGE PROFILE ON PAIRED DEVICE

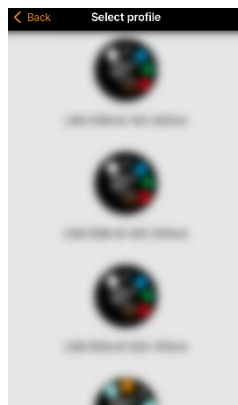
Once the technical data of the load to be connected to the device have been verified, it is possible to configure the date and time parameters for the selected profile by loading the Fixture on the controller. To change the Fixture on the SLIM-CBU-DMX, follow these steps.



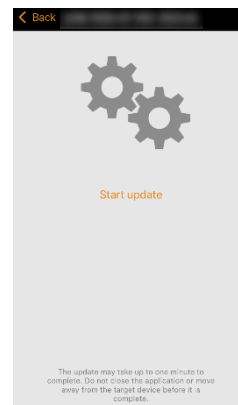
1. Power ON the device and open the CASAMBI mobile app.
2. Select *Nearby Devices*.



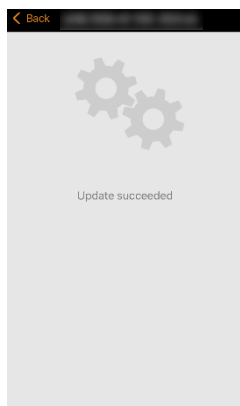
3. Tap on device's icon, then tap on *Unpair*.
4. Second tap on device's icon, then tap on *Change profile*.



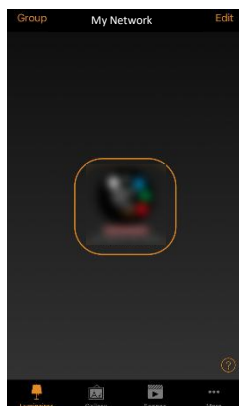
5. Select the desired profile (refer to Table 8).



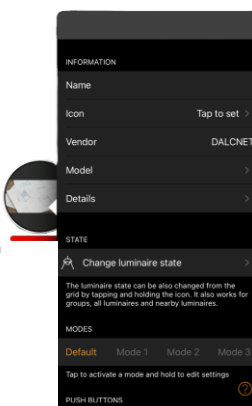
6. Tap *Start Update*.



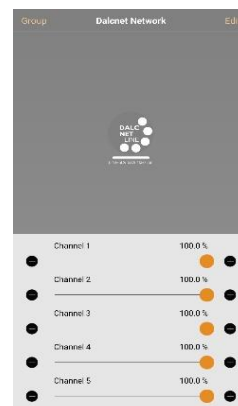
7. Wait for the profile to load correctly.
8. Back to *Nearby Devices* and select *Add to 'Network name'* to pair on the previous Network.



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.



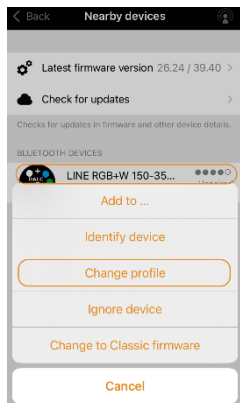
10. Hold tap on profile icon to show the profile settings.



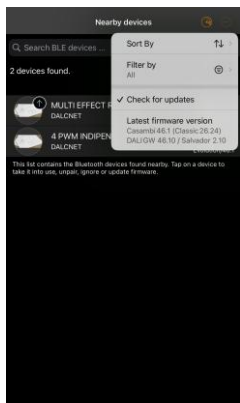
11. Inside the fixture configuration, the DMX profile (including the starting address) can be customized by the provided sliders/buttons.

### FIRMWARE UPDATE ON PAIRED DEVICE

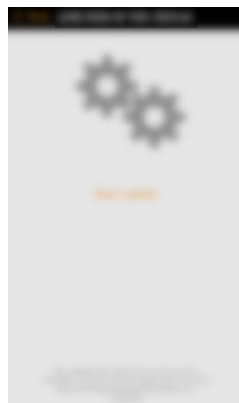
From CASAMBI mobile app it is possible to update the device's firmware. To check and load any update to the SLIM-CBU-DMX, follow these steps.



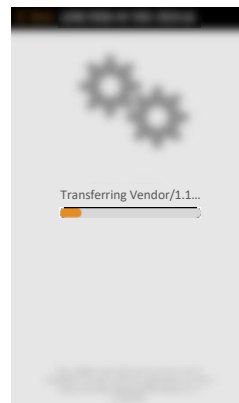
1. Power ON the device and open the CASAMBI mobile app.
2. Select *Nearby Devices*, *More* sheet, then tap the Meatball menu  and *Check for updates*.



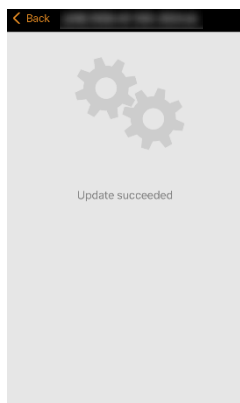
3. After checking for updates, if an update is available a small upward arrow will appear on device icon. Tap on device icon, then select *Update vendor firmware*.



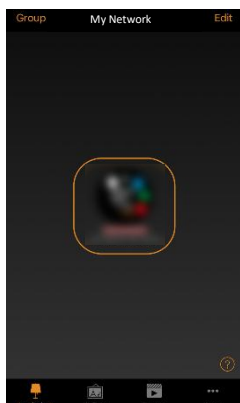
4. Tap *Start Update* on the next page. The transfer of the new Firmware will start.



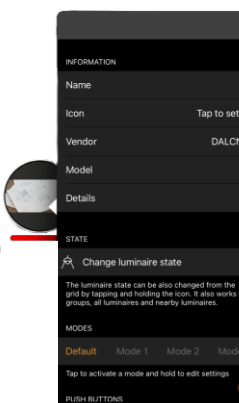
5. Please wait for the update, it may take up to three minutes or so.



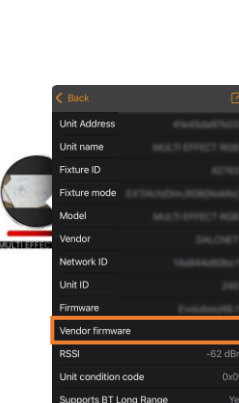
6. After the update and verification are successful, return to *Luminaires* sheet. Previous profile will be loaded.



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.

## PROFILES OVERVIEW: FIXTURES

SLIM-CBU-DMX supports the following fixtures (customizable by CASAMBI mobile app).

| PROFILE NAME                     | PROFILE ID                 | DESCRIPTION                                                                                                                                                                                                                                                                                                                                         |
|----------------------------------|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DMX SLAVE 8CH – SLIM CBU DMX     | 44919                      | <b>DMX Slave mode</b><br>CASAMBI devices control (up to 8 adjacent channels) from DMX network. Provides controls to set the DMX starting address and refresh rate.                                                                                                                                                                                  |
| W – SLIM CBU DMX                 | 45143                      | <b>One channel DMX dimmer</b><br>- Dimmer 1: channel 1                                                                                                                                                                                                                                                                                              |
| 4xW – SLIM CBU DMX               | 45144                      | <b>Four channels DMX dimmer</b><br>- Dimmer 1: channel 1<br>- Dimmer 2: channel 2<br>- Dimmer 3: channel 3<br>- Dimmer 4: channel 4                                                                                                                                                                                                                 |
| <b>8xW – SLIM CBU DMX</b>        | <b>45145<br/>(Default)</b> | <b>Eight channels DMX dimmer</b><br>- Dimmer 1: channel 1<br>- Dimmer 2: channel 2<br>- Dimmer 3: channel 3<br>- Dimmer 4: channel 4<br>- Dimmer 5: channel 5<br>- Dimmer 6: channel 6<br>- Dimmer 7: channel 7<br>- Dimmer 8: channel 8                                                                                                            |
| 12xW – SLIM CBU DMX              | 44917                      | <b>Twelve channels DMX dimmer</b><br>- Dimmer 1: channel 1<br>- Dimmer 2: channel 2<br>- Dimmer 3: channel 3<br>- Dimmer 4: channel 4<br>- Dimmer 5: channel 5<br>- Dimmer 6: channel 6<br>- Dimmer 7: channel 7<br>- Dimmer 8: channel 8<br>- Dimmer 9: channel 9<br>- Dimmer 10: channel 10<br>- Dimmer 11: channel 11<br>- Dimmer 12: channel 12 |
| Tunable White 2CH – SLIM CBU DMX | 45146                      | <b>Two channels (Tunable White) DMX dimmer</b><br>- Warm White Dimmer: channel 1<br>- Cool White Dimmer: channel 2                                                                                                                                                                                                                                  |
| RGB – SLIM CBU DMX               | 45147                      | <b>Three channels (RGB) DMX dimmer</b><br>- Red Dimmer: channel 1<br>- Green Dimmer: channel 2<br>- Blue Dimmer: channel 3                                                                                                                                                                                                                          |
| RGBW – SLIM CBU DMX              | 45148                      | <b>Four channels (RGBW) DMX dimmer</b><br>- Red Dimmer: channel 1<br>- Green Dimmer: channel 2<br>- Blue Dimmer: channel 3<br>- White Dimmer: channel 4                                                                                                                                                                                             |
| RGB+TW – SLIM CBU DMX            | 45149                      | <b>Five channels (RGB + Tunable White) DMX dimmer</b><br>- Red Dimmer: channel 1<br>- Green Dimmer: channel 2<br>- Blue Dimmer: channel 3<br>- Warm White Dimmer: channel 4<br>- Cool White Dimmer: channel 5                                                                                                                                       |
| MRGBS – SLIM CBU DMX             | 45150                      | <b>Five channels (Master + RGB + Strobe) DMX dimmer</b><br>- Master Dimmer: channel 1<br>- Red Dimmer: channel 2<br>- Green Dimmer: channel 3                                                                                                                                                                                                       |

| PROFILE NAME          | PROFILE ID | DESCRIPTION                                                                                                                                                                                                                                |
|-----------------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                       |            | - Blue Dimmer: channel 4<br>- Strobe Rate Channel: channel 5                                                                                                                                                                               |
| MRGBWS – SLIM CBU DMX | 45151      | <b>Six channels (Master + RGBW + Strobe) DMX dimmer</b><br>- Master Dimmer: channel 1<br>- Red Dimmer: channel 2<br>- Green Dimmer: channel 3<br>- Blue Dimmer: channel 4<br>- White Dimmer: channel 5<br>- Strobe Rate Channel: channel 6 |

Table 8: Profile list

## PROFILE MAPPING

Each Profile can be configured on CASAMBI mobile application with the proper DMX Starting address (refer to [§Change Profile on Paired device](#) section of this document) and other parameters depending to the selected profile. In the following mapping tables, 001 is assumed as the Starting Address.

### 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 channel.

| Address | Function | Level   |
|---------|----------|---------|
| 001     | DIMMER 1 | 0...255 |

#### 4xW: 4 CHANNELS

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

| Address | Function | Level   |
|---------|----------|---------|
| 001     | DIMMER 1 | 0...255 |
| 002     | DIMMER 2 | 0...255 |
| 003     | DIMMER 3 | 0...255 |
| 004     | DIMMER 4 | 0...255 |

#### 8xW: 8 CHANNELS (DEFAULT)

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

| Address | Function | Level   |
|---------|----------|---------|
| 001     | DIMMER 1 | 0...255 |
| 002     | DIMMER 2 | 0...255 |
| 003     | DIMMER 3 | 0...255 |
| 004     | DIMMER 4 | 0...255 |
| 005     | DIMMER 5 | 0...255 |
| 006     | DIMMER 6 | 0...255 |
| 007     | DIMMER 7 | 0...255 |
| 008     | DIMMER 8 | 0...255 |

### 12xW: 12 CHANNELS

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

| Address | Function  | Level   |
|---------|-----------|---------|
| 001     | DIMMER 1  | 0...255 |
| 002     | DIMMER 2  | 0...255 |
| 003     | DIMMER 3  | 0...255 |
| 004     | DIMMER 4  | 0...255 |
| 005     | DIMMER 5  | 0...255 |
| 006     | DIMMER 6  | 0...255 |
| 007     | DIMMER 7  | 0...255 |
| 008     | DIMMER 8  | 0...255 |
| 009     | DIMMER 9  | 0...255 |
| 010     | DIMMER 10 | 0...255 |
| 011     | DIMMER 11 | 0...255 |
| 012     | DIMMER 12 | 0...255 |

### TUNABLE WHITE 2CH: WARM/COLD WHITE INDEPENDENT DIMMERS

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

| Address | Function          | Level   |
|---------|-------------------|---------|
| 001     | WARM WHITE DIMMER | 0...255 |
| 002     | 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.

| Address | Function     | Level   |
|---------|--------------|---------|
| 001     | RED DIMMER   | 0...255 |
| 002     | GREEN DIMMER | 0...255 |
| 003     | 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.

| Address | Function     | Level   |
|---------|--------------|---------|
| 001     | RED DIMMER   | 0...255 |
| 002     | GREEN DIMMER | 0...255 |
| 003     | BLUE DIMMER  | 0...255 |
| 004     | 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.

| Address | Function          | Level   |
|---------|-------------------|---------|
| 001     | RED DIMMER        | 0...255 |
| 002     | GREEN DIMMER      | 0...255 |
| 003     | BLUE DIMMER       | 0...255 |
| 004     | WARM WHITE DIMMER | 0...255 |
| 005     | 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.

| Address | Function                 | Level   |
|---------|--------------------------|---------|
| 001     | MASTER DIMMER            | 0...255 |
| 002     | RED DIMMER               | 0...255 |
| 003     | GREEN DIMMER             | 0...255 |
| 004     | BLUE DIMMER              | 0...255 |
| 005     | STROBE RATE <sup>6</sup> | 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.

| Address | Function                 | Level   |
|---------|--------------------------|---------|
| 001     | MASTER DIMMER            | 0...255 |
| 002     | RED DIMMER               | 0...255 |
| 003     | GREEN DIMMER             | 0...255 |
| 004     | BLUE DIMMER              | 0...255 |
| 005     | WHITE DIMMER             | 0...255 |
| 006     | STROBE RATE <sup>6</sup> | 0...255 |

<sup>6</sup> The "Strobe Rate" channel is a standard DMX channel that outputs a value between 0 and 255 dedicated to the strobe function of the lighting control unit connected to the SLIM-CBU-DMX. It does not represent a direct control channel for the strobe, nor does it generate a strobe effect on the other channels. The generation of the effect, depending on the value on this channel, is always delegated to the connected lighting control unit. Check the behavior associated with this channel on the lighting control unit.