

CASAMBI



FEATURES

- CONVERTER+CASAMBI+BUS
- REPEATER CASAMBI
- Input: 230Vac
- Command: APP CASAMBI
- Signal converter from Casambi to DALI or DMX, in MASTER Variant
- Signal repeater, in REPEATER Variant
- Possibility to control DALI or DMX device, by Casambi APP
- Extended temperature range
- 100% Functional test – 5 Years warranty



➤ PRODUCT CODE

CODE	Input Voltage	Input Command	Output Command	
CBU-MASTER-DALI-IP	230Vac	APP CASAMBI	DALI (DT6 – DT8)	CONVERTER
CBU-MASTER-DMX-IP	230Vac	APP CASAMBI	DMX	CONVERTER
CBU-REPEATER-IP	230Vac	APP CASAMBI	REPEATER	REPEATER

The management of Addresses (DALI Variant) or Channels (DMX Variant) depends on the Casambi module configuration.

➤ PROTECTION

		CBU-MASTER-DALI/DMX	REPEATER
OVP	Over voltage protection ¹	✓	✓
IFP	Input fuse protection ¹	✓	✓

➤ TECHNICAL SPECIFICATION

	CBU MASTER & CBU REPEATER
Nominal Voltage	230 Vac
Voltage Range	100...240 Vac
Mains Frequency	50/60 Hz
Nominal Power @230V ²	3W max
Power loss in standby mode	<500mW
Storage Temperature	min: -40 max: +60 °C
Ambient Temperature ²	min: -25 max: +60 °C
Protection grade	IP66
Mechanical dimensions	90 x 90 x 65 mm
Casing material	Plastic
Weight	88g

	Only for BUS DALI
I out (only for DALI)	150mA
V out (only for DALI)	15V

¹ Only control logic protection

²Maximum value, dependent on the ventilation conditions.

➤ TECHNICAL NOTE

Installation:

- Isolate the mains supply before the installation or adjusting the switches. Installation and maintenance must be performed in the absence of AC Voltage.
- Installation and maintenance must be performed only by qualified personnel in compliance with current regulations.
- The product must be installed inside an electrical cabinet protected against overvoltages.
- The external supply must be protected. The product must be protected from Fuse and/or Circuit Breaker with overcurrent protection correctly dimensioned
- The product must be installed only in a vertical or horizontal position with the cover / label pointing upwards or vertically; No other positions are allowed. Button-up positive is not permitted (downward label).
- The use of the product in harsh environments could limit the output power.
- Keep 230V circuits (LV) and non-SELV circuits separate from safety extra low voltage (SELV) circuits and from all connections of this product. It's absolutely forbidden to connect for any reason, directly or indirectly, the 230V mains voltage to the bus or to other parts of the SELV circuit.

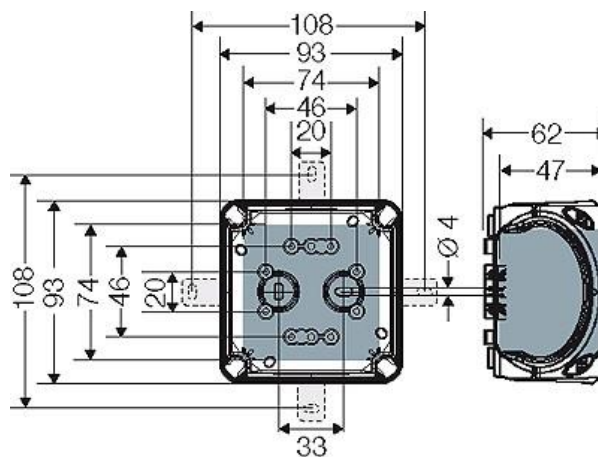
Command

- The length and type of the connection cables at the BUS (DMX512, DALI or other) must comply with the specification of the respective protocols and regulations and they should be isolated from every wiring or parts at voltage not SELV. It is suggested to use double insulated shielded and twisted cables.
- All the product and the control signal connect at the bus (DMX512, DALI, or other) must be SELV (the devices connected must be SELV or supply a SELV signal)

WARNING: Do not compromise the correct functioning of the device, the product must not be in any way shielded and/or installed inside metal and aluminium boxes.

As any other Casambi product, should not be placed in a metal enclosure or next to large metal structures. Metal will effectively block all radio signals which are crucial to the operation of the product.

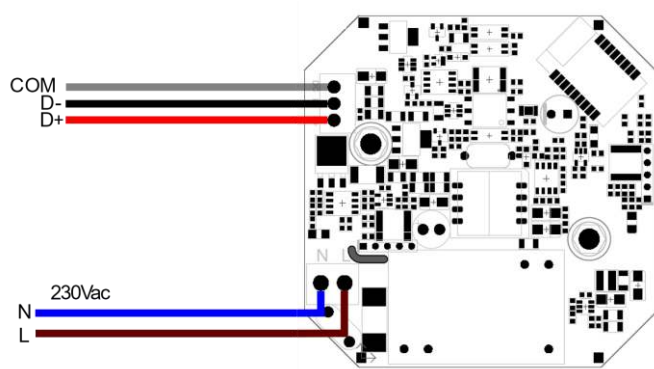
➤ MECHANICAL DIMENSIONS



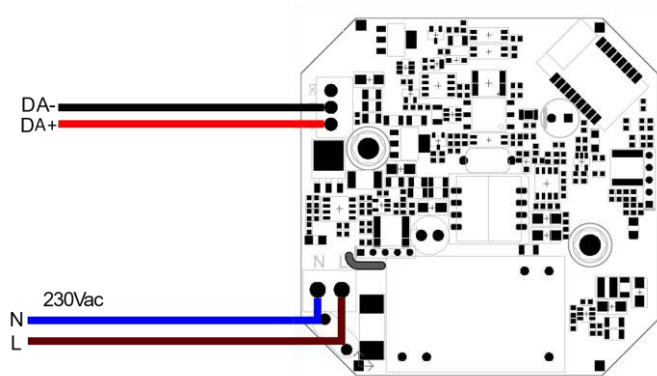
➤ INSTALLATION

Install the product following the below scheme

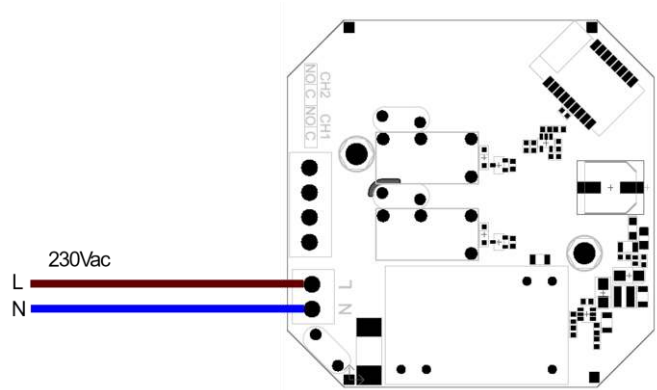
DMX BUS CONNECTION



DALI BUS CONNECTION



REPEATER CONNECTION



➤ **CBU-REPEATER-IP SETUP**
CASAMBI SIGNAL REPEATER



Characteristics:

The CBU-REPEATER-IP is a Casambi Repeater.

The device receives a Casambi Bluetooth signal and repeats it.

Status Led:

The status of LED is fixed on to indicate the correct power connection to the device.

TYPE OF PROFILE

Type	# Profile	Name of Profile	Description
REPEATER	9948	REPEATER	It works as a repeater, forwarding the Casambi signal.

➤ **CBU-MASTER-DALI-IP SETUP**
CASAMBI SIGNAL CONVERSION INTO DALI PROTOCOL



CHARACTERISTICS:

The CBU-MASTER-DALI-IP is a Casambi to DALI Converter.

The device receives a command signal from Casambi APP and converts the signal into a DALI command. Send DT6 and DT8 command.

See the following table “ADDRESS MAP – DALI” for reference of Casambi-DALI conversion addresses.

STATUS LED:

- When the status of the LED is steady on, the Casambi module is configuring and addressing the SLAVE DALI devices connected to the bus.
- When the LED status flashes quickly, the Casambi module is sending the command set via the Casambi APP to the SLAVE DALI devices connected to the bus.
- When the LED status flashes slowly, it means the DALI bus is shorted.
- When the LED status is off there is no communication in the DALI bus.

AUTOMATIC DETECTION OF SHORT CIRCUITS IN THE DALI BUS:

When the device detects a short circuit on the DALI bus, it automatically switches off the power of bus and the LED signal flashes slowly.

At 15 seconds after the detection of the short circuit, CBU-MASTER-DALI tries to reactivate the power supply of the bus. If the short circuit has been solved, the system returns to work correctly, otherwise the bus remains unpowered and cyclically, every 15 seconds, the device tries again to reactivate the power supply of bus.

NOTE: CBU-MASTER-DALI-IP do not need a DALI Bus power Supply.

At switching on, all channels are set at same value 254.

TYPE OF PROFILE

Type	# Profile	Name of Profile	Description
DALI	9942 (*)	DALI BROADCAST	Basic DALI broadcast dimmer. DALI Dimming Curve: Logarithmic. Set power on level at maximum level (100% - 254). No short addressing required.
	13820	W AUTOMATIC	One channel dimmer: - Dimmer 1: address A0 DALI Dimming Curve: Logarithmic. Set power on level at off (0% - 0). The short address is automatically assigned to the driver, if needed.
	13818	WW AUTOMATIC	Two channel dimmers: - Dimmer 1: address A0 - Dimmer 2: address A1 DALI Dimming Curve: Logarithmic. Set power on level at off (0% - 0). The short address is automatically assigned to the driver, if needed.
	13816	WWW AUTOMATIC	Three channel dimmers. - Dimmer 1: address A0 - Dimmer 2: address A1 - Dimmer 3: address A2 DALI Dimming Curve: Logarithmic. Set power on level at off (0% - 0). The short address is automatically assigned to the driver, if needed.
	12992	WWWW AUTOMATIC	Four channel dimmers. - Dimmer 1: address A0 - Dimmer 2: address A1 - Dimmer 3: address A2 - Dimmer 4: address A3 DALI Dimming Curve: Logarithmic. Set power on level at off (0% - 0). The short address is automatically assigned to the driver, if needed.
	12993	TW AUTOMATIC 2700-6000K	Two channel dimmers. - Dimmer 1: address A0-Warm White - Dimmer 2: address A1-Cool White DALI Dimming Curve: Logarithmic. Set power on level at off (0% - 0). The short address is automatically assigned to the driver, if needed.
	19060	TW AUTOMATIC 2700-6000K [NEW]	Two channel dimmers. - Dimmer 1: address A0-Warm White - Dimmer 2: address A1-Cool White DALI Dimming Curve: Quadratic. Set power on level at off (0% - 0). The short address is automatically assigned to the driver, if needed.
	12994	RGB AUTOMATIC	Three channel dimmers. - Dimmer 1: address A0-Red - Dimmer 2: address A1-Green - Dimmer 3: address A2-Blue DALI Dimming Curve: Logarithmic. Set power on level at off (0% - 0). The short address is automatically assigned to the driver, if needed.

(*) Default Profile

DALI	12995	RGB+W AUTOMATIC	<p>Four channel dimmers.</p> <ul style="list-style-type: none"> - Dimmer 1: address A0-Red - Dimmer 2: address A1-Green - Dimmer 3: address A2-Blue - Dimmer 4: address A3-White <p>DALI Dimming Curve: Logarithmic. Set power on level at off (0% - 0). The short address is automatically assigned to the driver, if needed.</p>
	12996	WWWW GROUP	<p>Four group luminaires.</p> <ul style="list-style-type: none"> - Dimmer 1: group G0 - Dimmer 2: group G1 - Dimmer 3: group G2 - Dimmer 4: group G3 <p>DALI Dimming Curve: Logarithmic. Set power on level at off (0% - 0). The short address needs to be assigned to the control gear using a DALI Master device.</p>
	12998	TW GROUP 2700-6000K	<p>Two group luminaires.</p> <ul style="list-style-type: none"> - Dimmer 1: group G0-Warm White - Dimmer 2: group G1-Cool White <p>DALI Dimming Curve: Logarithmic. Set power on level at off (0% - 0). The short address needs to be assigned to the control gear using a DALI Master device.</p>
	12999	RGB GROUP	<p>Three group luminaires.</p> <ul style="list-style-type: none"> - Dimmer 1: group G0-Red - Dimmer 2: group G1-Green - Dimmer 3: group G2-Blue. <p>DALI Dimming Curve: Logarithmic. Set power on level at off (0% - 0). The short address needs to be assigned to the control gear using a DALI Master device.</p>
	13000	RGB+W GROUP	<p>Four group luminaires.</p> <ul style="list-style-type: none"> - Dimmer 1: group G0-Red - Dimmer 2: group G1-Green - Dimmer 3: group G2-Blue - Dimmer 4: group G3-White <p>DALI Dimming Curve: Logarithmic. Set power on level at off (0% - 0). The short address needs to be assigned to the control gear using a DALI Master device.</p>
	15539	8xW GROUP SPECIAL	<p>Eight group luminaires.</p> <ul style="list-style-type: none"> - Dimmer 1: group G0 - Dimmer 2: group G1 - Dimmer 3: group G2 - Dimmer 4: group G3 - Dimmer 5: group G4 - Dimmer 6: group G5 - Dimmer 7: group G6 - Dimmer 8: group G7 <p>DALI Dimming Curve: Logarithmic. Set Power on Level at 255 (Mask) – Memory Function at Power On. Set System Failure at 255 (Mask) – In case of bus loss, there isn't change of LED output. The short address needs to be assigned to the control gear using a DALI Master device.</p>

DALI	24688	8xW GROUP	<p>Eight group luminaires.</p> <ul style="list-style-type: none"> - Dimmer 1: group G0 - Dimmer 2: group G1 - Dimmer 3: group G2 - Dimmer 4: group G3 - Dimmer 5: group G4 - Dimmer 6: group G5 - Dimmer 7: group G6 - Dimmer 8: group G7 <p>DALI Dimming Curve: Logarithmic.</p> <p>Set power on level at maximum level (100% - 254).</p> <p>The short address needs to be assigned to the control gear using a DALI Master device.</p>
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DALI DT8	18823	DALI BC DT8 TW	<p>1 Address to control 2-channel TW.</p> <p>Send DALI DT8 BROADCAST commands for device that supporting "Colour Temperature Tc": Dim Level and Colour Temperature channels.</p> <p>DALI Dimming Curve: Logarithmic.</p> <p>Set power on level at maximum level (100% - 254).</p> <p>No short addressing required.</p>
	21458	DALI DT8 RGB LINEAR	<p>1 Address to control 3-channel RGB.</p> <p>Send DALI DT8 commands for device that supporting "RGBWAF colour-type": Dim and RGBWAF channels.</p> <p>DALI Dimming Curve: Linear.</p> <p>Set power on level at maximum level (100% - 254).</p> <p>The short address is automatically assigned to the driver, if needed.</p>
	21459	DALI DT8 RGBW LINEAR	<p>1 Address to control 4-channel RGBW.</p> <p>Send DALI DT8 commands for device that supporting "RGBWAF colour-type": Dim and RGBWAF channels.</p> <p>DALI Dimming Curve: Linear.</p> <p>Set power on level at maximum level (100% - 254).</p> <p>The short address is automatically assigned to the driver, if needed.</p>
	24058	DALI DT8 BC RGB LINEAR	<p>1 Address to control 3-channel RGB.</p> <p>Send DALI DT8 BROADCAST commands for device that supporting "RGBWAF colour-type": Dim and RGBWAF channels.</p> <p>DALI Dimming Curve: Linear.</p> <p>Set power on level at maximum level (100% - 254).</p> <p>No short addressing required.</p>
	24008	DALI DT8 BC RGB+W LINEAR	<p>1 Address to control 4-channel RGBW.</p> <p>Send DALI DT8 BROADCAST commands for device that supporting "RGBWAF colour-type": Dim and RGBWAF channels.</p> <p>DALI Dimming Curve: Linear.</p> <p>Set power on level at maximum level (100% - 254).</p> <p>No short addressing required.</p>

ADDRESSES MAP – DALI**FIXTURE AUTOMATIC**

The Fixture “AUTOMATIC” of the CBU-MASTER-DALI-IP addressing automatically the devices connected to the DALI BUS.

Profile Type: **BROADCAST**

Addr	Function	Broadcast
+ALL	Broadcast	Dimmer (Brightness Value) 0 .. 254

Profile Type: **W AUTOMATIC** – Fixture for only 1 DALI address

Addr	Function	Dimmer
A0	Dimmer 1	Dimmer (Brightness Value) 0 .. 254

Profile Type: **WW AUTOMATIC** – Fixture for 2 DALI address

Addr	Function	Dimmer
A0	Dimmer 1	Dimmer (Brightness Value) 0 .. 254
A1	Dimmer 2	Dimmer (Brightness Value) 0 .. 254

Profile Type: **WWW AUTOMATIC** – Fixture for 3 DALI address

Addr	Function	Dimmer
A0	Dimmer 1	Dimmer (Brightness Value) 0 .. 254
A1	Dimmer 2	Dimmer (Brightness Value) 0 .. 254
A2	Dimmer 3	Dimmer (Brightness Value) 0 .. 254

Profile Type: **WWW AUTOMATIC** – Fixture for 4 DALI address

Addr	Function	Dimmer
A0	Dimmer 1	Dimmer (Brightness Value) 0 .. 254
A1	Dimmer 2	Dimmer (Brightness Value) 0 .. 254
A2	Dimmer 3	Dimmer (Brightness Value) 0 .. 254
A3	Dimmer 4	Dimmer (Brightness Value) 0 .. 254

Profile Type: **TW AUTOMATIC 2700-6000K – TW AUTOMATIC 2700-6000K NEW**

Addr	Function	Tunable White
A0	Warm White	Dimmer (Brightness Value) 0 .. 254
A1	Cool White	Dimmer (Brightness Value) 0 .. 254

Profile Type: **RGB AUTOMATIC**

Addr	Function	RGBW
A0	Red	R 0 .. 254
A1	Green	G 0 .. 254
A2	Blue	B 0 .. 254

Profile Type: **RGB+W AUTOMATIC**

Addr	Function	RGBW
A0	Red	R 0 .. 254
A1	Green	G 0 .. 254
A2	Blue	B 0 .. 254
A3	White	W 0 .. 254

FIXTURE GROUP

With "Group" Fixture the CBU-MASTER-DALI-IP sends group commands. The SLAVE devices to be controlled correctly by these Fixture must be previously addressed and assigned to the desired group through a Master DALI.

Profile Type: **WWW GROUP**

Group	Function	Dimmer
G0	Dimmer 1	Dimmer (Brightness Value) 0 .. 254
G1	Dimmer 2	Dimmer (Brightness Value) 0 .. 254
G2	Dimmer 3	Dimmer (Brightness Value) 0 .. 254
G3	Dimmer 4	Dimmer (Brightness Value) 0 .. 254

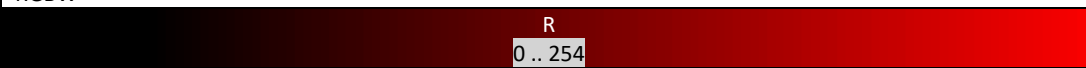
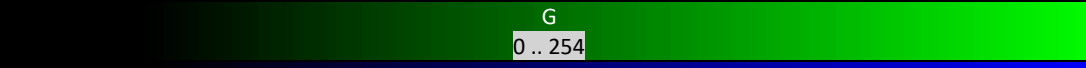
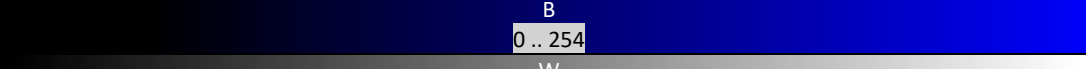
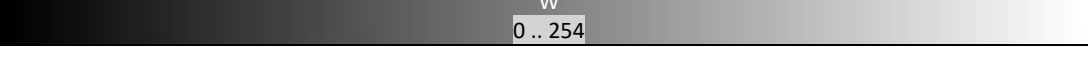
Profile Type: **TW GROUP 2700-6000K**

Group	Function	Tunable white
G0	Warm White	Dimmer (Brightness Value) 0 .. 254
G1	Cool White	Dimmer (Brightness Value) 0 .. 254

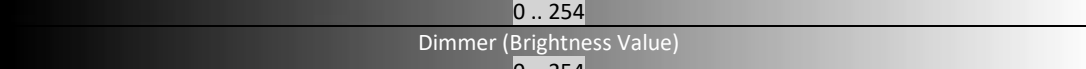
Profile Type: **RGB GROUP**

Group	Function	RGB
G0	Red	R 0 .. 254
G1	Green	G 0 .. 254
G2	Blue	B 0 .. 254

Profile Type: **RGB+W GROUP**

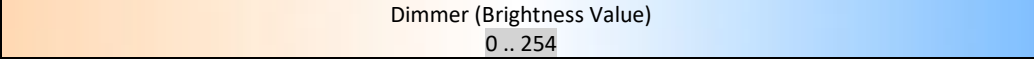
Group	Function	RGBW
G0	Red	 R 0 .. 254
G1	Green	 G 0 .. 254
G2	Blue	 B 0 .. 254
G3	White	 W 0 .. 254

Profile Type: **8xW GROUP – 8xW GROUP SPECIAL**

Group	Function	Dimmer
G0	Dimmer 1	 Dimmer (Brightness Value) 0 .. 254
G1	Dimmer 2	 Dimmer (Brightness Value) 0 .. 254
G2	Dimmer 3	 Dimmer (Brightness Value) 0 .. 254
G3	Dimmer 4	 Dimmer (Brightness Value) 0 .. 254
G4	Dimmer 5	 Dimmer (Brightness Value) 0 .. 254
G5	Dimmer 6	 Dimmer (Brightness Value) 0 .. 254
G6	Dimmer 7	 Dimmer (Brightness Value) 0 .. 254
G7	Dimmer 8	 Dimmer (Brightness Value) 0 .. 254

The 8xW GROUP SPECIAL profile send SET POWER ON LEVEL and SET SYSTEM FAILURE LEVEL command at 255 (MASK). These commands are sent at the DALI bus when you change the profile, by Casambi APP. For Control Gear to receive these commands correctly, they must be connected to the DALI bus before changing profile.

Profile Type: **DALI BROADCAST DT8 TW**

Addr	Function	Broadcast – Colour Temperature Tc – DT8
+ALL	Broadcast TW Colour Temperature Tc	 Dimmer (Brightness Value) 0 .. 254

Profile Type: **DALI DT8 RGB LINEAR**

Addr	Function	RGB – DT8
A0	RGB Colour Type	 Dimmer (Brightness Value) 0 .. 254

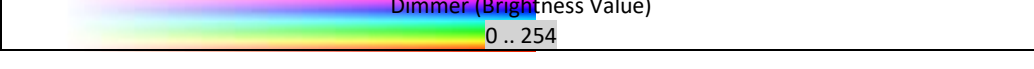
Profile Type: **DALI DT8 RGBW LINEAR**

Addr	Function	RGBW – DT8
A0	RGBW Colour Type	 Dimmer (Brightness Value) 0 .. 254

Profile Type: **DALI DT8 BC RGB LINEAR**

Addr	Function	Broadcast RGB – DT8
+ALL	Broadcast RGB Colour Type	 Dimmer (Brightness Value) 0 .. 254

Profile Type: **DALI DT8 BC RGB+W LINEAR**

Addr	Function	Broadcast RGB+W – DT8
+ALL	Broadcast RGB+W Colour Type	 Dimmer (Brightness Value) 0 .. 254

➤ **CBU-MASTER-DMX-IP SETUP**
CASAMBI SIGNAL CONVERSION INTO DMX PROTOCOL



Characteristics:

The CBU-MASTER-DMX-IP is a Casambi to DMX Converter.

The device receives the command signal from Casambi APP and convert it into a DMX command.

See the following "CHANNELS MAP – DMX" table for the reference of the Casambi-DMX conversion addresses.

Status Led:

Status LED is fixed on when the Casambi command is right transmitted.

Status LED slowly flashes (1 flash per second), when the device is powered.

TYPE OF PROFILE

Type	# Profile	Name of Profile	Description
DMX	13808	W	One channel dimmer: - Dimmer 1: channel 1
	13807	WWWW	Four channel dimmers. - Dimmer 1: channel 1 - Dimmer 2: channel 2 - Dimmer 3: channel 3 - Dimmer 4: channel 4
	13809	TW	Two channel dimmers. - Warm White Dimmer: channel 1 - Cool White Dimmer: channel 2
	13810	RGB	Three channel dimmers. - Red Dimmer: channel 1 - Green Dimmer: channel 2 - Blue Dimmer: channel 3
	13811	RGB+W	Four channel dimmers. - Red Dimmer: channel 1 - Green Dimmer: channel 2 - Blue Dimmer: channel 3 - White Dimmer: channel 4
	13812	MRGB+S	Five channel dimmers. - Master Dimmer: channel 1 - Red Dimmer: channel 2 - Green Dimmer: channel 3 - Blue Dimmer: channel 4 - Strobe Rate Channel: channel 5
	13813	MRGBW+S	Six channel dimmers. - 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

CHANNEL MAP – DMXProfile Type: **W** – 1 DMX channel

Ch.	Function	Dimmer
1	Dimmer 1	Dimmer (Brightness Value) 0 .. 255

Profile Type: **WWWW** – 4 DMX channel

Ch.	Function	Dimmer
1	Dimmer 1	Dimmer (Brightness Value) 0 .. 255
2	Dimmer 2	Dimmer (Brightness Value) 0 .. 255
3	Dimmer 3	Dimmer (Brightness Value) 0 .. 255
4	Dimmer 4	Dimmer (Brightness Value) 0 .. 255

Profile Type: **TW**

Ch.	Function	Tunable White
1	Warm White	Dimmer (Brightness Value) 0 .. 255
2	Cool White	Dimmer (Brightness Value) 0 .. 255

Profile Type: **RGB**

Ch.	Function	RGB
1	Red	R 0 .. 255
2	Green	G 0 .. 255
3	Blue	B 0 .. 255

Profile Type: **MRGBS**

Ch.	Function	Master+RGB+Strobe
1	Master Dimmer	Master Dimmer (Brightness Value) 0 .. 255
2	Red	R 0 .. 255
3	Green	G 0 .. 255
4	Blue	B 0 .. 255
5	Strobe Rate (*)	STROBO 0 .. 255

Profile Type: **RGBW**

Ch.	Function	RGBW
1	Red	R 0 .. 255
2	Green	G 0 .. 255
3	Blue	B 0 .. 255
4	White	W 0 .. 255

Profile Type: **MRGBWS**

Ch.	Function	Master+RGBW+Strobe
1	Master Dimmer	Master Dimmer (Brightness Value) 0 .. 255
2	Red	R 0 .. 255
3	Green	G 0 .. 255
4	Blue	B 0 .. 255
5	White	W 0 .. 255
6	Strobe Rate (*)	STROBO 0 .. 255

(*) Strobe Rate execute the functions of the strobe address of the control unit connected to the CBU-MASTER-DMX-IP. For example, if you connect the CBU-MASTER-DMX-IP to the DLD1248-4CV-DMX control unit, which is also set with the MRGB+ or MRGBW+ map, the Strobe Rate address has the following characteristics:

6	Strobe Rate	fix	blackout	1fps	2fps	3fps	4fps	5fps	6fps	7fps	8fps	9fps	10fps	12fps	14fps	16fps	fix
		0..15	16..31	32..47	48..63	64..79	80..95	96..111	112..127	128..143	144..159	160..175	176..191	192..207	208..223	224..239	240..254

For other devices check the behaviour of the device at the respective channel 6 of the DMX.

➤ BLUETOOTH RANGE

The range depends a lot on the surroundings and materials or building obstacles, see the technical notes on page 3.