



### FEATURES

- BLUETOOTH+SEQUENCER+FADER+DIMMER+DRIVER
- DC Input: 12-24 Vdc
- RF Command: Bluetooth low energy
- Local Command: n°2 N.O. Push Buttons
- Control: Dimmer, Tunable White, RGB or RGBW Colour
- Current outputs or voltage outputs for LED strip
- Typical efficiency > 95%
- Adjusting the brightness up to completed off
- Soft start and soft stop
- Optimized output curve
- Extended temperature range
- 100% Functional test – 5 Years warranty

→ For the whole and update **Device Manual** refer to producer's website: <http://www.dalcnet.com>

### ➤ CONSTANT CURRENT VARIANTS (common anode)

Application (4 channels output): Dimmer, Tunable White, RGB, RGBW

CODE	Supply Voltage	Output	Channels	Commands	
DLX1224-4CC350-BLE	12-24V DC	4x350mA	4	BLE – 2 N.O. push button	EASY
DLX1224-4CC500-BLE	12-24V DC	4x500mA	4	BLE – 2 N.O. push button	EASY

### ➤ CONSTANT VOLTAGE VARIANTS (common anode)

Application (4 channels output): Dimmer, Tunable White, RGB, RGBW

CODE	Supply Voltage	Output	Channels	Command	
DLX1224-4CV-BLE	12-24V DC	4x5A (max 10A tot.)	4	BLE – 2 N.O. push button	EASY

### ➤ PROTECTIONS

		CC	CV
<b>OVP</b>	Over voltage protection <sup>1</sup>	✓	✓
<b>UVP</b>	Under voltage protection <sup>1</sup>	✓	✓
<b>RVP</b>	Reverse polarity protection <sup>1</sup>	✓	✓
<b>IFP</b>	Internal circuit input fuse protection <sup>1</sup>	✓	✓

<sup>1</sup> Only control logic protection



## ➤ REFERENCE STANDARDS

EN 61347-1	Lamp controlgear - Part 1: General and safety requirements
EN 55015	Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment
EN 61547	Equipment for general lighting purpose – EMC immunity requirements
EN 50581	Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances

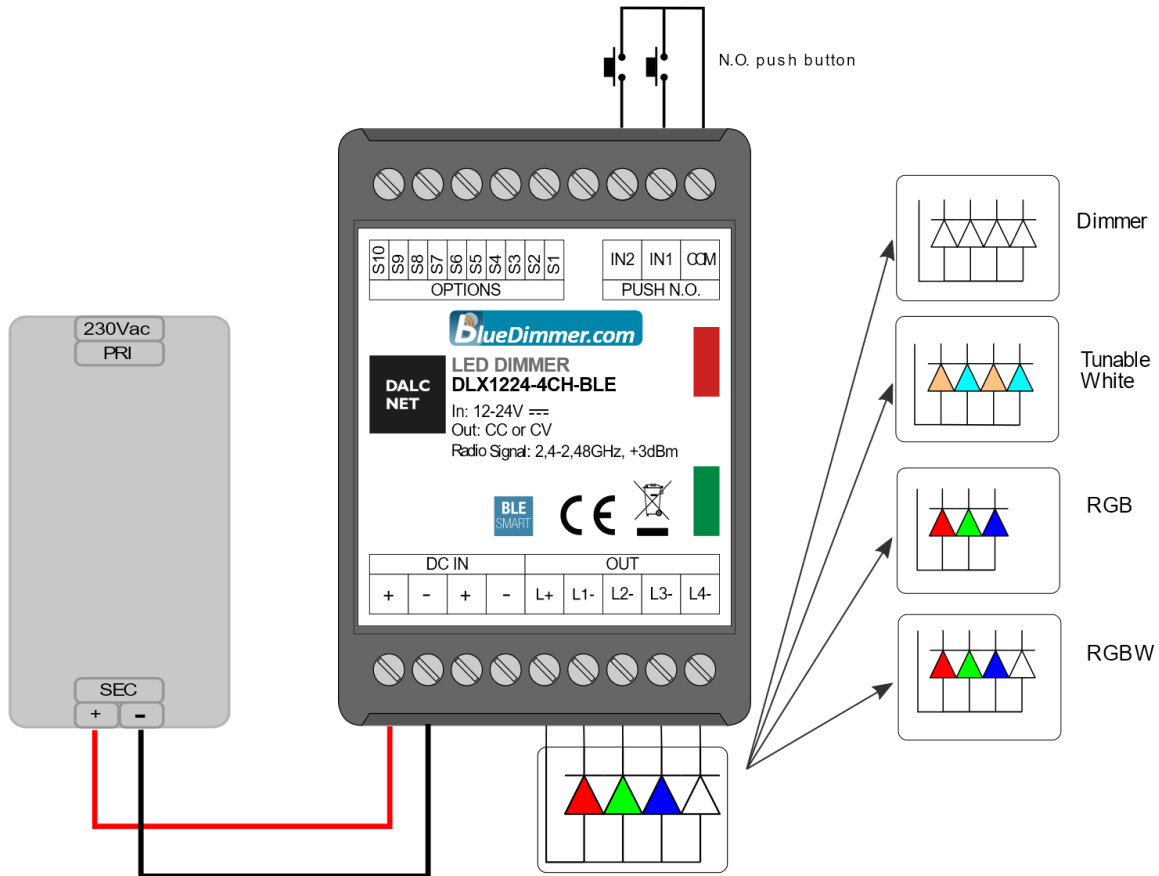
## ➤ TECHNICAL SPECIFICATIONS

		Variant					
		Constant current				Constant voltage	
		4 channels				4 channels	
Supply voltage		DC min: 10,8 Vdc .. max: 26,4 Vdc					
Output voltage		min: Vin/4 - max: Vin-0,9V				=Vin	
Input current		max 2A				max 10A	
Output current		350mA/ch	1,4A tot	500mA/ch	2A tot	5A/ch	10A tot <sup>2</sup>
Nominal power <sup>3</sup>	@12V	4,2W/ch	16,8W	6W/ch	24W	60W/ch	120W
	@24V	8,4W/ch	33,6W	12W/ch	48W	120W/ch	240W
Power loss in standby mode		<500mW				<500mW	
Type of Load		R-L-C				R	
D-PWM dimming frequency		300 Hz					
D-PWM resolution		16 bit					
D-PWM range		0,1 – 100 %					
Storage Temperature		min: -40 max: +60 °C					
Ambient Temperature <sup>3</sup>		min: -10 max: +40 °C					
Wiring		2.5mm <sup>2</sup> solid - 1.5mm <sup>2</sup> stranded - 30/12 AWG					
Wire preparation length		5,5 – 6,5 mm					
Protection grade		IP20					
Casing material		Plastic					
Packaging unit (pieces/unit)		Single Carton Box 1pz				Carton Box 12pz	
Mechanical dimensions		88 x 54 x 26 mm					
Packaging dimensions		106 x 59 x 36 mm				263 x 178 x 82 mm	
Weight		74g				900g	

<sup>2</sup> For the voltage version the device provides max 10A (Itot= IL1 + IL2 +IL3 +IL4). Each channel provides max 5A.

<sup>3</sup> Maximum value dependent on ventilation conditions

## ➤ INSTALLATION



## ➤ TECHNICAL NOTES

### Installation:

- Installation and maintenance must be performed only by qualified personnel in compliance with current regulations.
- The product must be installed inside an electrical panel protected against overvoltages.
- The product must be installed in a vertical or horizontal position with the cover / label upwards or vertically; Other positions are not permitted. It is not permitted to bottom-up position (with the cover / label down).
- Keep separated the circuits at 230V (LV) and the circuits not SELV from circuits to low voltage (SELV) and from any connection with this product. It is absolutely forbidden to connect, for any reason whatsoever, directly or indirectly, the 230V mains voltage to the bus or to other parts of the circuit.

### Power supply:

- For the power supply use only a SELV power supplies with limited current, short circuit protection and the power must be dimensioned correctly. In case of using power supply with ground terminals, all points of the protective earth (PE = Protection Earth) must be connected to a valid and certified protection earth.
- The connection cables between the power source "low voltage" and the product must be dimensioned correctly and they should be isolated from every wiring or parts at voltage not SELV. Use double insulated cables.
- Dimension the power supply for the load connected to the device. If the power supply is oversized compared with the maximum absorbed current, insert a protection against over-current between the power supply and the device.
- For the constant current output, the voltage of LED module ( $V_f$ ) must be less of 5V at the voltage of power supply.

### Command:

- The length of the connection cables between the local commands (N.O. Push button or other) and the product must be less than 10m; the cables must be dimensioned correctly and they should be isolated from every wiring or parts at voltage not SELV. Use double insulated shielded and twisted cables.
- All the product and the control signal connect at the local command (N.O. Push button or other) must be SELV (the devices connected must be SELV or supply a SELV signal)

### Outputs:

- The length of the connection cables between the product and the LED module must be less than 10m; the cables must be dimensioned correctly and they should be isolated from every wiring or parts at voltage not SELV. Is preferable to use shielded and twisted cables.

**WARNING: For optional functionality of the Bluetooth signal, do not put the device into metal or aluminium boxes and do not shield the device.**

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



## ➤ SETUP

Function		-Switches from 1 to 2: -Switches from 3 to 10:	<b>Load Type</b> Don't use – keep at off position
	Note: Factory positions = all OFF		

• DIP from 1 to 2: **Load Type**

White Dimmer		Tunable White		RGB		RGBW	
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## ➤ LOCAL COMMANDS FUNCTION

WHITE DIMMER FEATURE: *The intensity of all outputs is controlled by one N.O. button only.*

Button	Function		
1	Dimmer	Click Double Click Long pressure (>1s) from OFF Long pressure (>1s) from ON	On/Off Turn on at 100% Turn on at 10% (Nighttime) Dimmer UP/DOWN

TUNABLE WHITE FEATURE: *Intensity and Colour Temperature Correction can be controlled by two N.O. push buttons.*

Button	Function		
1	Dimmer	Click Double Click Long pressure (>1s) from OFF Long pressure (>1s) from ON	On/Off Turn on at 100% Turn on at 10% (Nighttime) Dimmer UP/DOWN
2	Temperature Colour	Double Click Long pressure (>1s)	Neutral White Colour Temperature UP/DOWN

RGB/RGBW FEATURE: *It is possible to control intensity, colour and white*

Button	Function		
1	Dimmer	Click Double Click Long pressure (>1s) from OFF Long pressure (>1s) from ON	On/Off Turn on at 100% Turn on at 10% (Nighttime) Dimmer UP/DOWN
2	White / Colour	Click Double Click Long pressure (>1s)	Start/stop colour rotation Change from White to colour and vice-versa Change rotation speed <sup>4</sup>

<sup>4</sup> Colour rotation speed is selectable from 4 predefined levels.

The selected speed (set by button pressure) is visualized as a white strobe light:

- 10 flash lights/s for a 6 seconds rotation
- 5 flash lights/s for a 30 seconds rotation
- 2 flash lights/s for a 6 minutes rotation
- 1 flash light/s for a 30 minutes rotation

## BLE COMMAND

➤ **BLUEDIMMER SOFTWARE INSTRUCTIONS**

Necessary conditions for the correct use of the device:

- APPLE device with ON Bluetooth Low Energy 4.1 version
- ANDROID device with ON Bluetooth Low Energy 4.1 version
- Dalcnet Product DLB1248 with BLE smart function
- Strip Led or spotlight
- N.O. Push-Button
- Bluedimmer App, available on the App Store and Play Store, download for free.



## ➤ APP INSTALLATION ON THE DEVICE

Download for free and install the application on your smartphone and tablet.

### OSSERVATION:

On the version of Android 6.0 is necessary allow at BlueDimmer application to access Your location.



## START UP SEQUENCE IMAGES



Automatic research and identification of DALCNET DLB1248 with BLE function products.

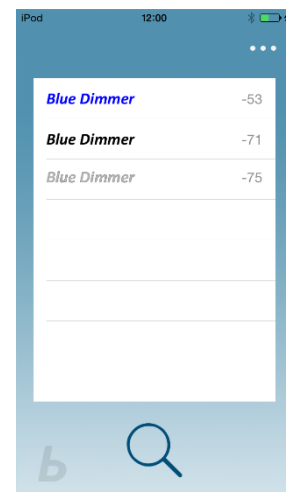
### N.B.:

Manual research is possible by clicking on the lens symbol at the bottom of your device's screen.



Example of results of the research:

- Device in **blue** = device associated and ready for use
- Device in **black** = new device to pair
- Device in **grey** = device already associated but not available

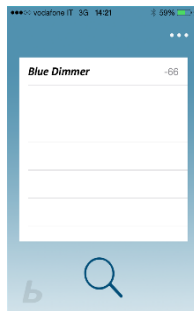


➤ **HOW TO ASSOCIATE THE DEVICE TO THE BLUEDIMMER APPLICATION**

1- Set selectors S1 and S2 according to the load you want to drive.

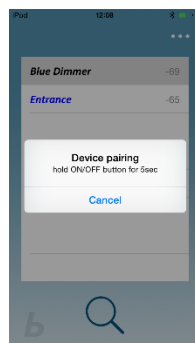
2- Select on the smartphone/tablet the connected device.

The strip led or spotlight connected to the selected device will automatically light on



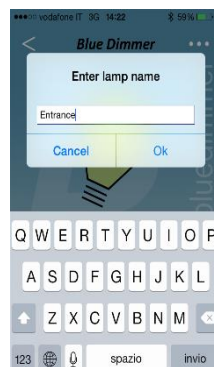
3- Keep press for 5 sec the push button connected to the light-on-led for pairing.

From firmware version 1.2 the pairing is automatic.



4- On the screen will appear a box to name the strip led or spotlight controlled by DALCNET BLE device.

For ex.: you can name 'kitchen' the light in the kitchen, and 'living' the one in the living room. This is a simple way to control the lights in your house.



- 5- DALCNET device has now been correctly paired and ready for use.  
You will see the lamp name on the display. Here you can start controlling your led light.

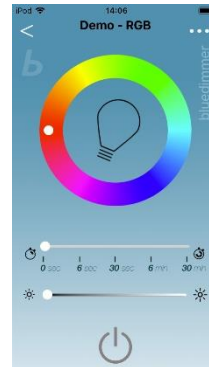
White



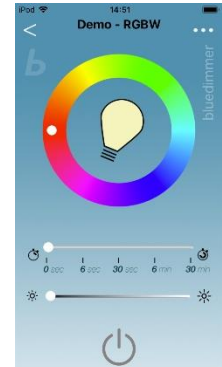
Tunable White



RGB



RGBW



**LEGEND:**



on/off



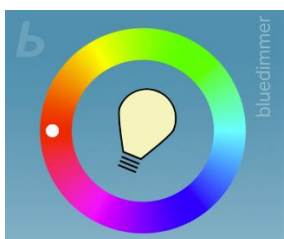
dimmer



Tunable White dimmer



RGB dimmer



RGB and W dimmer



RGB/RGBW Cycle



back to search devices menu