



**FEATURES**

- FADER+DIMMER+DRIVER
- DC Input: 12/24/48 Vdc or 12/24 Vdc
- Command: N.O. push button
- Adjusting the brightness of white light
- Current outputs or Voltage outputs for R-L-C loads, DLC1248 CC and CV variant
- Voltage outputs for R load, DLC1224-1CV variant
- 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 updated Device Manual refer to producer's website: <http://www.dalcnet.com>

➤ **CONSTANT CURRENT VARIANTS (common anode)**

Application: Dimmer

CODE	Supply voltage	Output	Channel	Command
DLC1248-1CC350	12-48V DC	1 x 350mA	1	N.O. push button
DLC1248-1CC500	12-48V DC	1 x 500mA	1	N.O. push button
DLC1248-1CC700	12-48V DC	1 x 700mA	1	N.O. push button
DLC1248-1CC950	12-48V DC	1 x 950mA	1	N.O. push button

Any current value in the range from 350mA to 950mA is available on demand.

➤ **CONSTANT VOLTAGE VARIANTS (common anode)**

Application: Dimmer

CODE	Supply voltage	Output	Channel	Command
DLC1224-1CV	12-24V DC	1 x 10A	1	N.O. push button
DLC1248-1CV	12-48V DC	1 x 6,5A	1	N.O. push button

➤ **PROTECTIONS**

		DLC1248-1CV	DLC 1224-1CV	DLC1248-1CC
<b>OTP</b>	Over temperature protection <sup>1</sup>	✓		✓
<b>OVP</b>	Over voltage protection <sup>2</sup>	✓	✓	✓
<b>UVP</b>	Under voltage protection <sup>2</sup>	✓	✓	✓
<b>RVP</b>	Reverse polarity protection <sup>2</sup>	✓	✓	✓
<b>IFP</b>	Input fuse protection <sup>2</sup>	✓	✓	✓
<b>SCP</b>	Short circuit protection	✓		
<b>OCP</b>	Open circuit protection			✓
<b>CLP</b>	Current limit protection	✓		✓

<sup>1</sup> Thermal Protection on the output channel in case of high temperature. The thermal intervention is detected by transistor (>150°C) or current regulation (depending on the booster variant).

<sup>2</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	
		350mA	500mA	700mA	950mA	12/24/48 Vdc	12/24 Vdc
Supply voltage		min: 10,8 Vdc .. max: 52,8 Vdc				min: 10,8 Vdc max: 52,8 Vdc	min: 10,8 Vdc max: 26,4 Vdc
Output voltage		min: Vin/4 - max: Vin-0,9V				=Vin	=Vin
Input current		max 0,35A	max 0,5A	max 0,7A	max 0,95A	max 6,5A <sup>3</sup>	max 10 A <sup>3</sup>
Output current		350 mA	500 mA	700 mA	950 mA	6,5A	10A
Nominal power <sup>3</sup>	@12V	4.2 W	6 W	8.4 W	11.4 W	78 W	120 W
	@24V	8.4 W	12 W	16.8 W	22.8 W	156 W	240 W
	@48V	16.8 W	24 W	33.6 W	45.6 W	312 W	-
Power loss in standby mode		<500mW				<500mW	
Type of Load		R-L-C				R-L-C	R
Thermal shutdown <sup>4</sup>		150°C				150°C	-
D-PWM dimming frequency		250 Hz					
D-PWM resolution		16 bit					
D-PWM range		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 - 2.5mm <sup>2</sup> stranded - 30/12 AWG				2.5mm <sup>2</sup> solid – 2.5mm <sup>2</sup> stranded – 30/12 AWG	1.5mm <sup>2</sup> solid – 1mm <sup>2</sup> stranded – 30/16 AWG
Wire preparation length		5.5 ÷ 6.5 mm				5.5 ÷ 6.5 mm	5 ÷ 6 mm
Protection grade		IP20					
Casing material		Plastic					
Packaging unit (pieces/unit)		Single Carton Box 1 pcs				Carton Box 21pcs	Carton Box 10pcs
Mechanical dimensions		44 x 57 x 25 mm				44 x 57 x 25 mm	44 x 57 x 19 mm
Package dimensions		56 x 68 x 35 mm				263 x 178 x 82 mm	164 x 117 x 70 mm
Weight		43g				1000g	306g

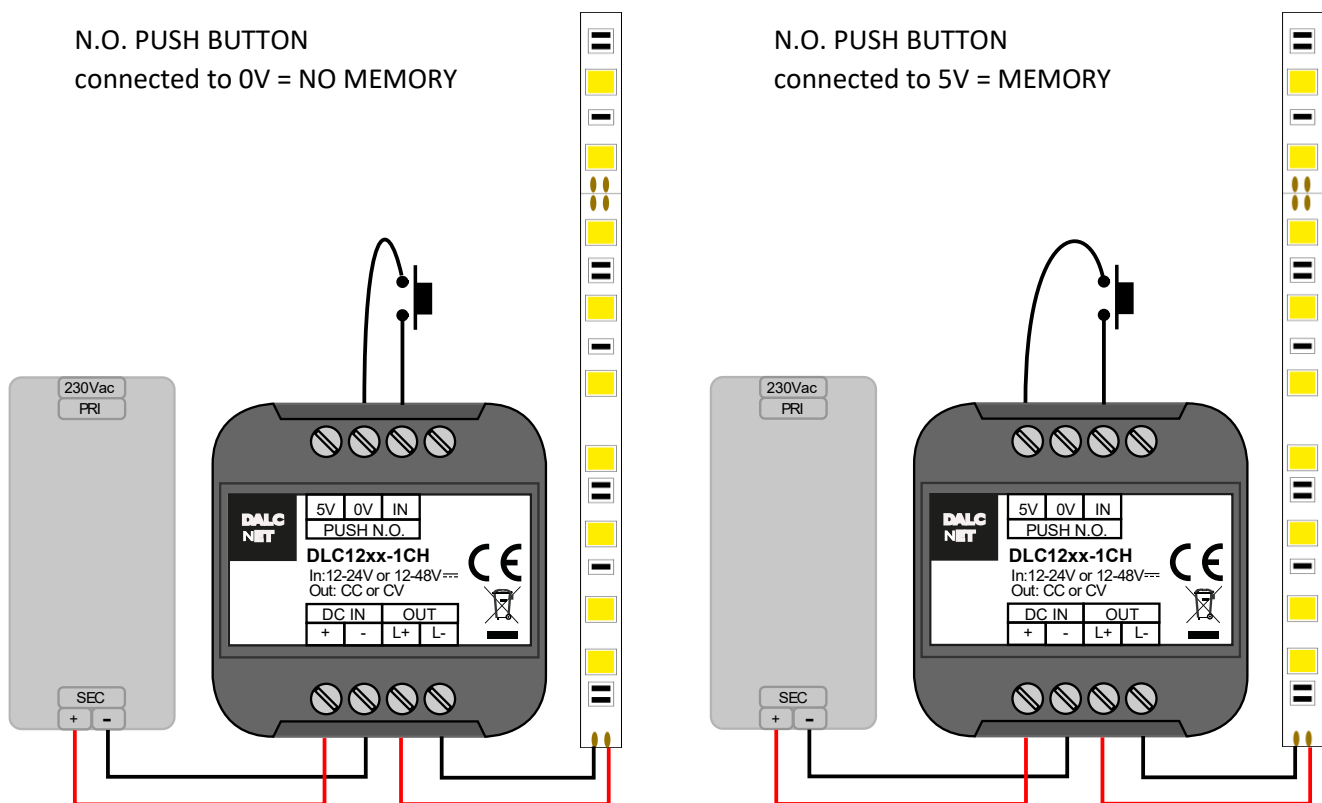
<sup>3</sup> Maximum value, dependent on ventilation conditions

<sup>4</sup> Thermal Protection on the output channel in case of high temperature. The thermal intervention is detected by transistor (>150°C) or current regulation (depending on the booster variant).

## ➤ INSTALLATION

To set the product, follow the instruction on the picture below:

- 1) Connect the LED in the output terminal blocks "OUT" of the device.
- 2) Connect the LOCAL COMMAND to the terminal blocks "PUSH N.O." of the device (to 5 or 0V, with or without memory).
- 3) Connect the power supply (12-24 Vdc or 12-48Vdc depending on the dimmer model) to terminal blocks "DC IN" of the device



## ➤ CONFIGURATION

N.O. PUSH BUTTON

- 1) Memory function: the device stores its state in case of blackout (if N.O. push buttons connected to 5V)
- 2) Eco function: when recovering the power supply the device starts-up from a switched off condition (if N.O. push buttons connected to 0V).
- 3) Present function: when recovering the power supply the device starts-up from a previously set condition. The present can be stored by connecting N.O. push button to 5V during installation (and to 0V after installation).

**Note:** It is not allowed to control multiple devices with a single button.  
It is allowed to control a device with several buttons, the buttons must not be pressed simultaneously.

➤ **FUNCTION**

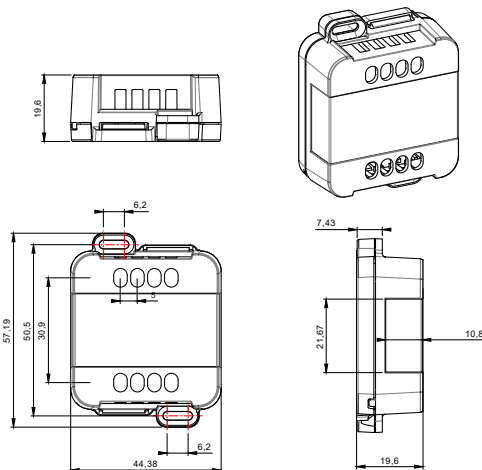
N.O. PUSH BUTTON

*The intensity and the status (ON/OFF) is controlled by the N.O. push button.*

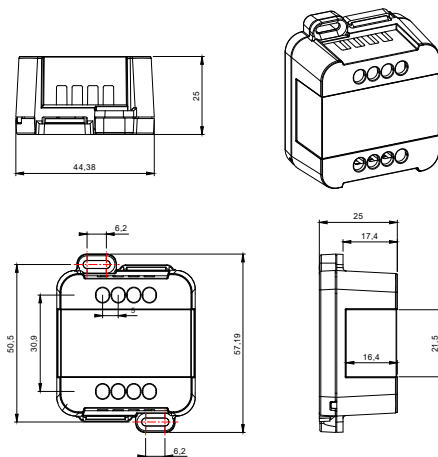
Button	Function	Intensity
1	Click Double Click Long pressure (>1s) from OFF Long pressure (>1s) from ON	On/Off Maximum Intensity Turn on at 10% (Nighttime) Dimmer UP/DOWN

➤ **MECHANICAL DIMENSION**

DLC1224-1CV



DLC1248-1CV/1C



➤ **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 (Vf) 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.