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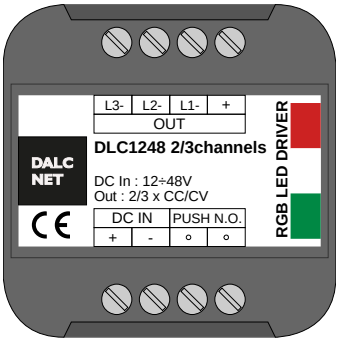
DLC1248 multi channel

EASY RGB / EASY TW

Device Manual

Made in Italy



FEATURES

- SEQUENCER+FADER+DIMMER+DRIVER
- DC Input 12-24-48 Vdc
- Command: push-button
- Tunable white control or RGB color control
- Current outputs or voltage outputs for LED strip
- Typical efficiency > 95%
- Adjusting the brightness up to completed off
- Soft start and stop
- Optimized output curve
- Extended temperature range
- 100% Functional test - 5 years warranty

Constant current variants (common anode)

Application: (2 channels output): tunable white
Application: (3 channels output): RGB colour

CODE	Supply voltage	Output	Channels	Command	
DLC1248-2CC350	12÷48V DC	2 x 350mA	2	N.O. button	
DLC1248-2CC500	12÷48V DC	2 x 500mA	2	N.O. button	
DLC1248-2CC700	12÷48V DC	2 x 700mA	2	N.O. button	
DLC1248-3CC350	12÷48V DC	3 x 350mA	3	N.O. button	
DLC1248-3CC500	12÷48V DC	3 x 500mA	3	N.O. button	
DLC1248-3CC700	12÷48V DC	3 x 700mA	3	N.O. button	

Constant voltage variants (common anode)

Application (2-channels output): tunable white
Application (3-channels output): RGB colour

CODE	Supply voltage	Output	Channels	Command	
DLC1248-2CV	12÷48V DC	2 x 1,6A max.	2	N.O. button	
DLC1248-3CV	12÷48V DC	3 x 1,6A max.	3	N.O. button	

Protections

OTP	Over temperature protection
OVP	Over voltage protection
UVP	Under voltage protection
RVP	Reverse polarity protection
IFP	Input fuse protection
SCP	Short circuit protection
OCP	Open circuit protection
CLP	Current limit protection

Reference standards

IEC/EN 61347-1	Lamp controlgear - Part 1: General and safety requirements
IEC/EN 61347-2-13	Lamp controlgear - Part 2-13: Particular requirements for d.c. or a.c. supplied electronic controlgear for LED modules
IEC/EN 62384	DC or AC supplied electronic control gear for LED modules - Performance requirements
IEC 61547	Equipment for general lighting purposes - EMC immunity requirements
IEC 61000-3-2	Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions (equipment input current ≤ 16 A per phase)
EN 55015	Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment

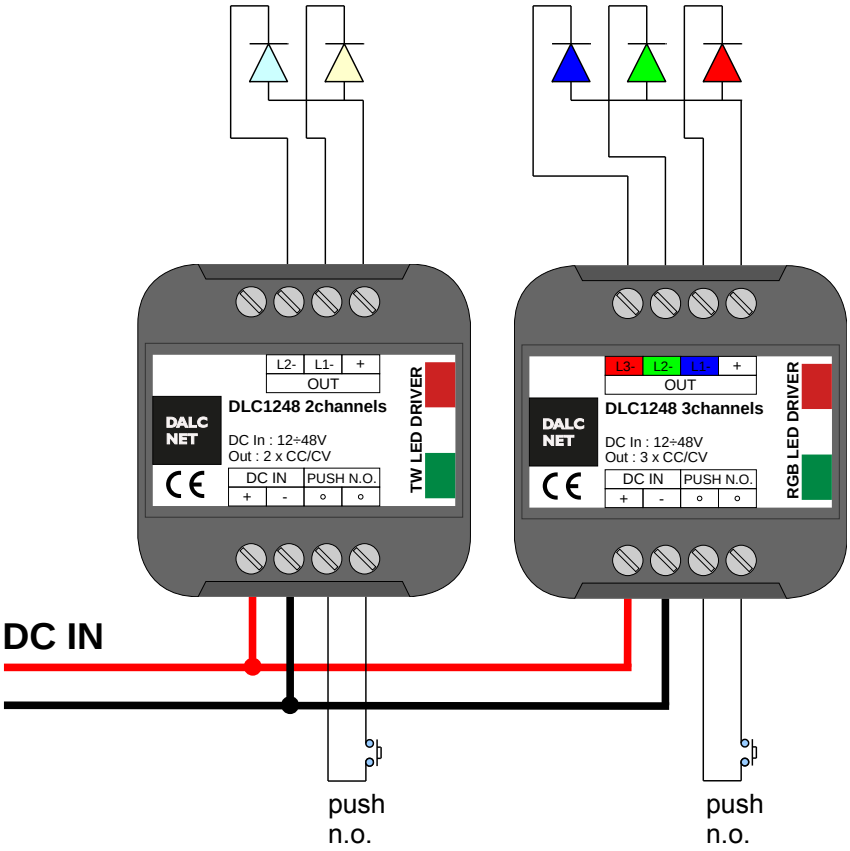
Technical Specifications

		variants			
		Constant current		Constant voltage	
		2 channels	3 channels	2 channels	3 channels
Supply Voltage		DC min: 10.8 Vdc .. max: 52,8 Vdc			
Input current[1)]		max 1,4A	max 2,1A	max 3,2A	max 4,8A
Output Voltage		min: Vin/4 max: Vin-0,9V		= Vin	
Output current[1)]		350/500/700 mA/ch		Max 1.6 A/ch [1)]	
		max 1,4A	max 2,1A	max 3,2A	max 4,8A
Nominal power [1)]	@12V	8,4/12/16,8 Wmax	12,6/18/25,2 Wmax	38,4 Wmax	57,6Wmax
	@24V	16,8/24/33,6 Wmax	25,2/36/50,4 Wmax	76,8 Wmax	115,2 Wmax
	@48V	33,6/48/67,2 Wmax	50,4/72/100,8 Wmax	153,6 Wmax	230,4 Wmax
Thermal shutdown		150 °C		150 °C	
D-PWM dimming frequency		250Hz			
D-PWM resolution		16 bit			
D-PWM range		0,1 – 100 %			
Storage temperature		min: -40 max: +60 °C			
Ambient temperature [1)]		min: -10 max: +40 °C			
Protection Grade		IP20			
Wiring		2.5mm² solid - 1.5mm² stranded - 30/12 AWG			
Mechanical dimensions		44 x 44 x 25 mm			
Packaging dimensions		68 x 56 x 35 mm			
Weight		40g			

[1)] *maximum value, dependent on the ventilation conditions*

Installation

Connect the switching supply, connect the button, connect leds.



DLC1248-2CC350	DLC1248-3CC350
DLC1248-2CC500	DLC1248-3CC500
DLC1248-2CC700	DLC1248-3CC700
DLC1248-2CV	DLC1248-3CV

Function

The outputs status is memorized and reloaded in the case of supply interruptions.

TUNABLE WHITE
Tunable White is managed by a button in the following variants:

DLC1248-2CC350	DLC1248-2CC500	DLC1248-2CC700	DLC1248-2CV

Key	Function		
		Click Double Click Long pressure (>1s) from OFF Long pressure (>1s) from ON	ON/OFF Maximum Intensity Turn ON at 10% (night), then dimmer UP/DOWN Color temperature UP/DOWN

RGB COLOUR
RGB colours are managed by a button in the following variants:

DLC1248-3CC350	DLC1248-3CC500	DLC1248-3CC700	DLC1248-3CV

Key	Function		
		Click Long pressure (>1s) from OFF Long pressure (>1s) from ON	ON/OFF Change rotation speed* Start/stop color rotation

*Color rotation speed is selectable from 4 predefined levels.
The selected speed is visualized with a white strobo output:
- 10 flash/s for the rotation of 6 seconds
- 5 flash/s for the rotation of 30 seconds
- 2 flash/s for the rotation of 6 minutes
- 1 flash/s for the rotation of 30 minutes

Technical Notes

• The 0÷10V control input is compatible with sinking/sorcing 1÷10V controls (where available). In 1÷10V control mode without external current source, the current source of the product must be activated, as shown on connection scheme.
• 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.
• For the power supply is preferable to use a SELV power supply. In the case of using class I power supply, ALL points of the protective earth (PE = Protection Earth) must be connected to a valid protection earth .
• Keep 230V cables separate from circuits to low voltage (SELV).
• 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. Is preferable to use shielded and twisted cables. (Only for multi-channel) In case of output currents higher at 10A, connect at the power supply both pairs of power supply input "V +" and "V-".
• 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.
• The length of the connection cables between the local commands (push-button, potentiometer, 0-10 V, 1-10 V, 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. Is preferable to use shielded and twisted cables.
• The length and type of the connection cables of the BUS (DALI, DMX, Modbus, Ethernet, or other) use cables as per specification of the respective protocols and regulations and they should be isolated from every wiring or parts at voltage not SELV. Is preferable to use shielded and twisted cables.
• To connect the DMX512+RDM, Modbus and DALI bus use cables as per specification of the respective protocols and regulations.
• It '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.