

DALCNET S.r.I.

Registered office: via Meucci, 35 - 36040 Brendola (VI) - Italy Headquarters: via Meucci, 35 - 36040 Brendola (VI) - Italy Tel. + 39 0444 1836680/1867452 Fax. + 39 0444 1867453 VAT: IT-04023100235 info@dalcnet.com www.dalcnet.com

DLC1248-110single channel

EASY DIMMER **Device Manual**

FW 3.0+



Made in Italy

Rev. 2018-01-22 pag. 1/4





FEATURES

- FADER+DIMMER+DRIVER
- DC Input: 12/24/48 Vdc
- Command: 0-10V / 1-10V
- · Adjusting the brightness of withe light
- · Current outputs or voltage outputs for R-L-C loads
- 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 currents variants (common anode)

CODE	Voltage supply	Output	Channels	Command	
DLC1248-1CC350-110	12-48V DC	1 x 350mA	1	Analog signal 0-10V / 1-10V	
DLC1248-1CC500-110	12-48V DC	1 x 500mA	1	Analog signal 0-10V / 1-10V	
DLC1248-1CC700-110	12-48V DC	1 x 700mA	1	Analog signal 0-10V / 1-10V	
DLC1248-1CC950-110	12-48V DC	1 x 950mA	1	Analog signal 0-10V / 1-10V	
Any current value in range from 350 mA to 950 mA is available on demand					

Application: Dimmer

Constant voltage variants (common anode)

CODE	Voltage supply	Output	Channels	Command	
DLC1248-1CV-110	12-48V DC	1 x 8A max	1	analog signal 0-10V / 1-10V	

Application: Dimmer

Protections

ОТР	Over temperature protection	
OVP	Over voltage protection (*)	
UVP	Under voltage protection (*)	
RVP	Reverse polarity protection (*)	
IFP	Input fuse protection (*)	
SCP	Short circuit protection	
ОСР	Open circuit protection	
CLP	Current limit protection	

(*) Only control logic protection

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Device Manual

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Rev. 2018-01-22 pag. 2/4

Reference Standards

EN 61347-1:2008 +A1:2011+A2:2013	Lamp controlgear - Part 1: General and safety requirements
EN 55015:2013+A1:2015	Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment
EN 61547:2009	Equipment for general lighting purposes - EMC immunity requirements
EN 50581:2012	Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances
ANSI E 1.3	Entertainment Technology - Lighting Control Systems - 0 to 10V Analog Control Specification
IEC 60929-E.2.1	Control interface for controllable ballasts - control by d.c. voltage - functional specification

Technical Specifications

				Variants	i		
			Constan	nt current		Constant voltage	
		350mA	500mA	700mA	950mA		
Supply voltage			min: 10,8 Vdc max: 52,8 Vdc				
Input current		max 0,4A	max 0,5A	max 0,7A	Max 0.95A	max 8 A peak 1)	
Output voltage			min: Vin/4 max: Vin-0,9V				
Output current		350 mA	500 mA	700 mA	950mA	max 8 A peak ¹⁾ max 7,5A @20°C ¹⁾ max 6,5A @40°C ¹⁾	
Nominal power 1)	@12V	4.2 W	6 W	8.4 W	11.4 W	78 W	
	@24V	8.4 W	12 W	16.8 W	22.8 W	156 W	
	@48V	16.8 W	24 W	33.6 W	45.6 W	312 W	
Thermal shutdown			150 °C				
Command supply current		0,5mA (only for 1-10V)					
Command required current (max)		0,1mA (not for 1-10V)					
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		45 x 58 x 25 mm					
Packaging dimensions		68 x 56 x 35 mm					
Weight		40g					

¹⁾maximim value, dependent on ventilation conditions

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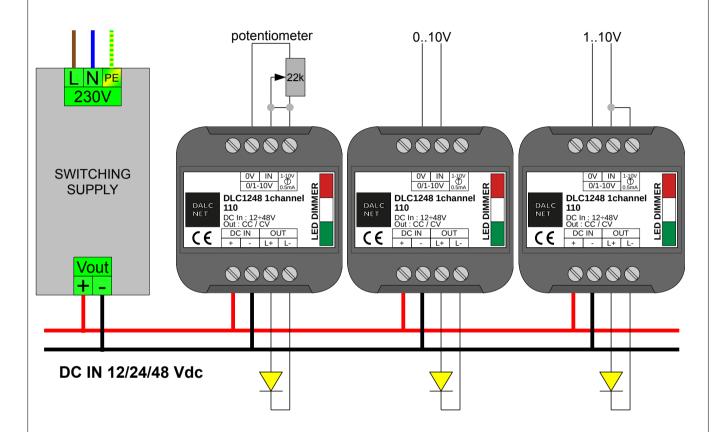


Rev. 2018-01-22

pag. 3/4

Installation

Connect the switching supply (12-48 V) to the device, connect the potentiometer or 0..10V control or 1..10V control, connect the leds.



DLC1248-1CC350-110
DLC1248-1CC500-110
DLC1248-1CC700-110
DLC1248-1CC950-110
DLC1248-1CV-110

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Rev. 2018-01-22 pag. 4/4

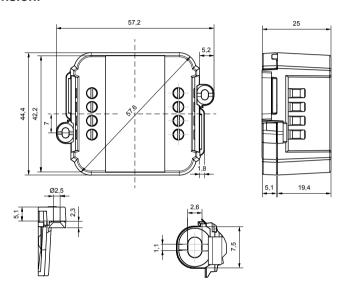
Function:

0-10V & 1-10V

The intensity is controlled by input voltage variation.

Input	Function	Intensity
0÷10V 1÷10V Potentiometer		Dimmer: 0-1V = 0% 10V=100%

Mechanical Dimension:



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 updown).
- 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
- 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.

- The length of the connection cables between the local commands (0-10 V, 1-10 V, Potentiometer 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 (0-10V, 1-10V, Potentiometer or other) must be SELV (the devices connected must be SELV or supply a SELV signal)

• 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.