

DALC
NET

DLC1248 single channel

EASY DIMMER
Data Sheet

FW 3.0+



Made in Italy

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pag. 1/4



FEATURES

- FADER+DIMMER+DRIVER
- DC Input: 12/24/48 Vdc
- Command: push-button
- Adjusting the brightness of the light
- Current outputs or voltage outputs for R-L-C loads
- Typical efficiency > 95%
- Adjusting the brightness up to completely off
- Soft start and soft stop
- Optimized output curve
- Extended temperature range
- 100% Functional test - 5 years warranty

Constant current variants (common anode)

| 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 950 mA is available on demand.

Application: Dimmer

Constant voltage variants (common anode)

| CODE | Supply voltage | Output | Channel | Command |
|-------------|----------------|------------|---------|------------------|
| DLC1248-1CV | 12÷48V DC | 1 x 8A max | 1 | N.O. push button |

Application: Dimmer

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 |

LED DRIVERS



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 |
| 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

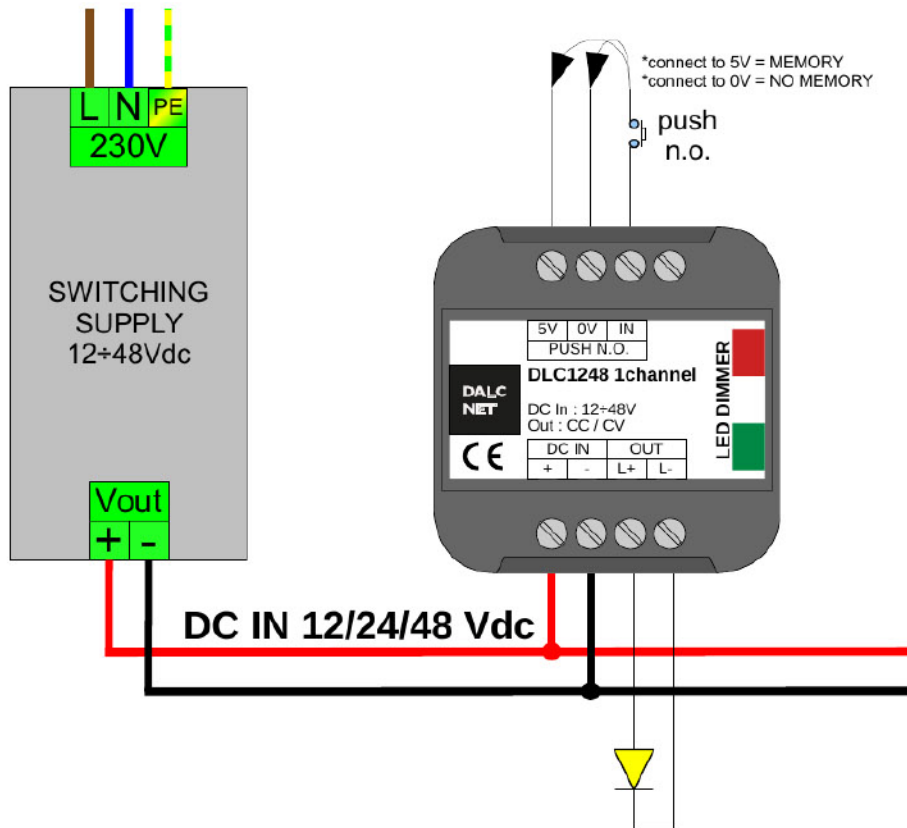
| | | Variants | | | | | Constant Voltage |
|-----------------------------------|------|--------------------------------------------------------------------|----------|----------|-----------|--------------------------------------------------------------------------------------------|------------------|
| | | Constant 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⁾ | |
| Absorbed Power at 0% output | @12V | max 90 mW | | | | max 75 mW | |
| | @24V | max 205 mW | | | | max 180 mW | |
| | @48V | max 515 mW | | | | max 455 mW | |
| Output Voltage | | min: $V_{in}/4$ max: $V_{in}-0,9V$ | | | | = V_{in} | |
| 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 | | | | 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 | | 2.5mm ² solid - 1.5mm ² 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 ventilation conditions



Installation

Connect the switching supply (12-48V), connect the push button (to 5 or 0V, with/without memory), connect leds.



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

Configuration

BUTTON

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



Function

BUTTON

The intensity and the status (ON/OFF) is controlled by the 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 |

Technical Notes

- The 0-10V control input is compatible with sinking/sourcing 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.