LDT-DALI-1CV-15A

Single-Channel DALI & Push-Dim LED Controller

A 1-channel DC-fed DALI LED controller with the lighting profile and addressing defined for this hardware. Match the supply, LED voltage, DALI profile and actual output-current limits.

Supply voltage	12-48 VDC
LED output	1-channel constant-voltage PWM
Maximum output current	15 A at 12/24 V; 10 A at 36/48 V
Maximum output power	180 W at 12 V; 360 W at 24/36 V; 480 W at 48 V
Control inputs	DALI + Push-Dim
DALI profiles	DT6, 1 address
Dimming	0-100%
Dimming curve	DALI logarithmic
PWM frequency	500 / 2000 / 8000 / 16000 Hz
Address assignment	DALI master assignment
Operating temperature	-30 to +55 °C
Maximum case temperature	+85 °C
IP rating	IP20
Body dimensions	175 x 45 x 27 mm

Maximum output current decreases at higher supply voltages. Confirm the matching DALI gear/controller profile before ordering.

The following reference pages include the complete wiring, dimensions, settings and operating instructions. Use the lighting and hardware variant identified above; shared references may illustrate other separate models.

DALI

1 Channel Constant Voltage DALI LED Dimmer

Features

- 1 channel constant voltage DALI LED Dimmer, output Max. 15A.
- DALI-2 certified, in accordance with DALI standard protocol IEC 62386-101, 102, 207 and in compliance with DALI products from other international incorporation.
- DALI address will be automatically assigned by DALI master, 1 DALI address.
- PWM frequency 500Hz, 2KHz, 8KHz or 16KHz selectable.
- Standard DALI logarithmic dimming curve.
- Connect with external push switch to achieve on/off and dimming function.
- Over-heat / Over-load / Short circuit protection, recover automatically.



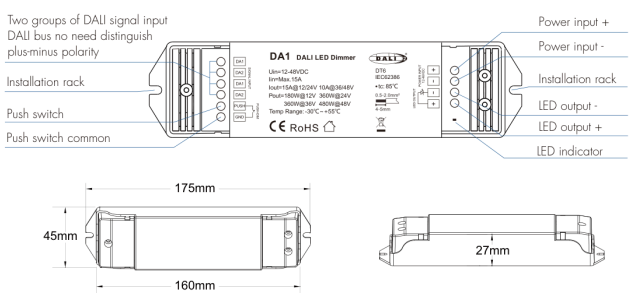
Technical Parameters

Input and Output	
Input voltage	12-48VDC
Input current	Max 15A
Output voltage	12-48VDC
Output current	15A@12/24V 10A@36/48V
Output power	180W@12V 360W@24V 360W@36V 480W@48V
Output type	Constant voltage

Dimming data	
Input signal	DALI + Push Dim
Dimming range	0-100%
Dimming curve	Logarithmic
PWM frequency	500Hz, 2KHz(default), 8KHz, 16KHz
Environment	
Operation temperature	Ta: -30˚C ~ +55˚C
Case temperature (Max.)	Tc: +85˚C

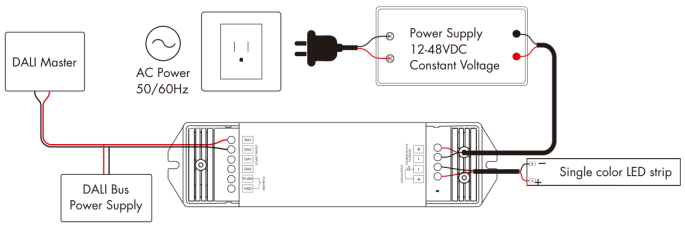
Safety and EMC	
EMC standard	EN IEC 55015 EN IEC 61547
Safety standard	EN 61347-1/-2 EN 62493
Certification	CE RoHS DALI-2
Package	
Size	L178 x W50 x H38mm
Gross weight	0.132kg
Warranty	5 years

Mechanical Structures and Installations

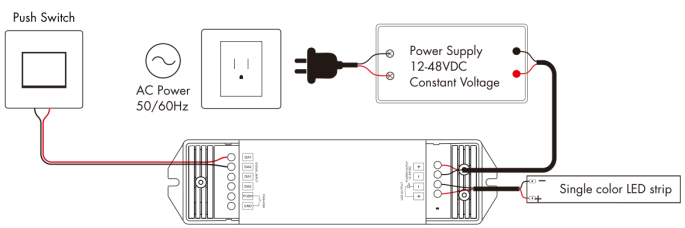


Wiring Diagram

- CV controller connect with DALI master



- CV controller connect with push switch



DALI Control

- **DALI Address Assigned by DALI Master**

This product is designed with 1 DALI address input and 1 channel output, DALI address is assigned by DALI Master controller automatically, please refer to user manuals of compatible DALI Masters for specific operations.

- **DALI priority**

The DALI master or Push switch can be connected at the same time, which makes the product more user-friendly and more options to fit for some extra-ordinary demands.
If the controller be used with the Push-Dim interface prior to using the DALI interface, the DALI command will make it return DALI control automatically.

Push Dim Function

The provided Push-Dim interface allows for a simple dimming method using commercially available non-latching (momentary) wall switchs.

- Short press:
  Turn on or off light.
- Long press (1-6s):
  Press and hold to step-less dimming, With every other long press, the light level goes to the opposite direction.
- Dimming memory:
  Light returns to the previous dimming level when switched off and on again, even at power failure(The power failure memory need to be set on the host computer).
- Synchronization:
  If more than one controller are connected to the same push switch, do a long press for more than 10s, then the system is synchronized and all lights in the group dim up to 100%.
  This means there is no need for any additional synchrony wire in larger installations.
  We recommend the number of controllers connected to a push switch does not exceed 25 pieces,
  The maximum length of the wires from push to controller should be no more than 20 meters.

PWM Frequency Setting

Press and hold the push switch and power on, and keep pressing for 5s, the LED indicator fast flashes 3 times, enter the PWM frequency setting state.
Release the push switch and operate the following steps within 5s to switch the PWM frequency:
Press and hold the push switch for 2s, set the PWM frequency to 500Hz, the LED indicator flash 1 time.
Press and hold the push switch for 5s, set the PWM frequency to 2KHz, the LED indicator flash 2 times.
Press and hold the push switch for 10s, set the PWM frequency to 8KHz, the LED indicator flash 3 times.
Press and hold the push switch for 15s, set the PWM frequency to 16KHz, the LED indicator flash 4 times.
The factory default PWM frequency is 2KHz.
Higher PWM frequency, will cause lower output current, higher power noise, but more suitable for camera(No flickers for video).

PWM frequency and output current mapping:

Iout / PWM / Uin	500Hz	2KHz	8KHz	16KHz
12/24V	15A	12A	10A	10A
36/48V	10A	8A	6A	6A

Safety & Warnings

- DO NOT install with power applied to device.
- DO NOT expose the device to moisture.