LDT-DALI-2CV-10A

Two-Channel DT6/DT8-TC DALI & AC Push-Dim Controller

A 2-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	2-channel constant-voltage PWM
Maximum output current	10 A per channel at 12/24 V; 8 A per channel at 36/48 V, at 500 Hz
Maximum output power	2 x 120 W at 12 V; 2 x 240 W at 24 V; 2 x 288 W at 36 V; 2 x 384 W at 48 V
Control inputs	DALI + AC Push-Dim
DALI profiles	DT6, 2 addresses or DT8-TC, 1 address
Dimming	0-100%
Dimming curve	DALI logarithmic
PWM frequency	500 / 2000 / 8000 / 16000 Hz
Address assignment	DALI master assignment
12/24 V PWM current limits	10 / 9 / 6 / 5 A per channel at 500 / 2000 / 8000 / 16000 Hz
36/48 V PWM current limits	8 / 7 / 5 / 4 A per channel at 500 / 2000 / 8000 / 16000 Hz
Operating temperature	-20 to +55 °C
Maximum case temperature	+80 °C
IP rating	IP20
Body dimensions	175 x 45 x 27 mm

Maximum output current decreases at higher supply voltages and with higher PWM frequencies. 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

DALI 2 Channel Constant Voltage LED Dimmer

Features

- DALI 2 channel constant voltage LED Dimmer, maximum output current 10A per channel
- 2/1 DALI address, DIP switch set 2 kinds of light type: DT6 dimming or DT
- DALI-2 certified, in accordance with DALI standard protocol IEC 62386-102, 207,209and in compliance with DALI products from other international incorporation.
- DALI address will be automatically assigned by DALI master.
- PWM digital dimming, standard DALI logarithmic dimming curve.
- DIP switch set 4 kinds of PWM frequency: 500Hz, 2KHz, 8KHz, 16KHz.
- Connect with external AC push switch to achieve on/off, adjustment of brightness and color temperature function.
- Over-load / Short circuit protection, recover automatically.



DALI-2 CE RoHS

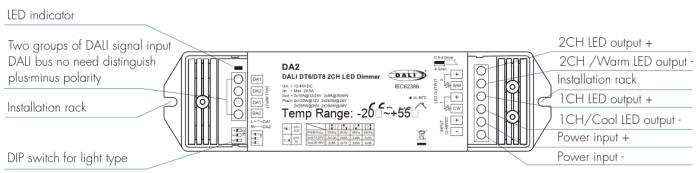
Technical Parameters

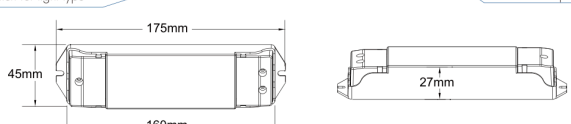
Input and Output	
Input voltage	12-48VDC
Input current	20.5A
Output voltage	12-48VDC
Output current	2x10A@12/24V 2x8A@36/48V
Output power	2x120W@12V 2x240W@24V 2x288W@36V 2x384W@48V
Output type	Constant voltage

Dimming data	
Input signal	DALI + AC Push Dim
Dimming range	0-100%
Dimming curve	Logarithmic
PWM frequency	500Hz/2KHz /8KHz/16KHz
Environment	
Operation temperature	Ta: -20℃ ~ +55℃
Case temperature (Max.)	Tc: +80℃
IP rating	IP20

Safety and EMC	
EMC standard	EN IEC 55015 EN IEC 61547
Safety standard	EN 61347-1/-2 EN 62493
Certification	DALI-2 CE RoHS
Warranty and Protection	
Warranty	5 years
Protection	Over-load Short circuit Reverse polarity

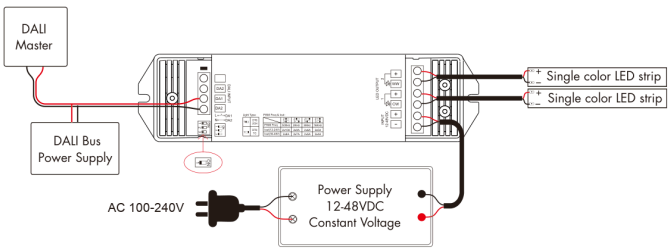
Mechanical Structures and Installations





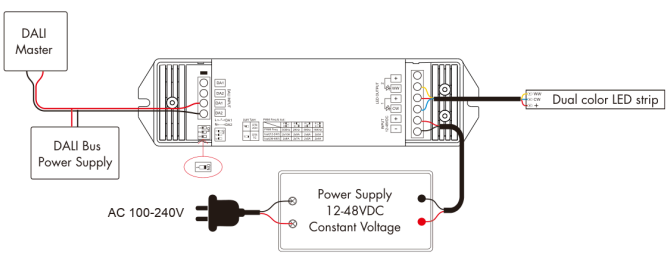
Wiring Diagram

• CV controller for single color(DIP switch 1 set to DT6)

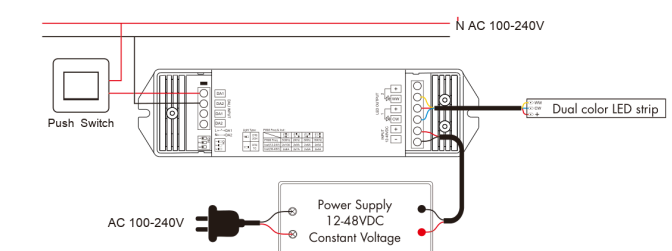


Note: When two DT6 addresses are used to control the color temperature light, channel 1 is connected to the cool white LED strip, and Channel 2 is connected to the warm white LED strip.

• CV controller for dual color (DIP switch 1 set to DT8)



• CV controller connect with AC push switch



DALI Control

DIP switch 1 set DT6/DT8 mode:

- **DT6 2CH mode: 2 DALI address, 2 channel output;**
- **DT8 TC mode: 1 DALI address, 2 channel output.**

DALI address is assigned by DALI Master controller automatically,
please refer to user manuals of compatible DALI Masters for specific operations.

Push DIM

- **Short press:** Turn on/off the light.
- **Long press (1-6s):** Step-less dimming, dimming range 1%-100%.
  With every other long press, the light level goes to the opposite direction.
- **Double click:** Switch between three levels color temperature (warm white, neutral white, cool white) in sequence.
  At the same time, enter the state of long-press to adjust color temperature.
  After 5s of no operation, it will automatically exit color temperature adjustment state.

Note: When two DT6 addresses are used to control the color temperature light,
the two channels need to be respectively connected to the cool white LED strip and the warm white LED strip.

PWM Frequency Setting

DIP switch 2 and 3 set four output PWM frequencies: 500Hz, 2kHz, 8kHz or 16kHz.
Higher PWM frequency, will cause lower output current, higher power noise, but more suitable for camera
(No flickers for video).

	2 3	2 3	2 3	2 3
PWM Freq	500Hz	2KHz	8KHz	16KHz
Iout (12-24V)	10A	9A	6A	5A
Iout (36-48V)	8A	7A	5A	4A

Safety & Warnings

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