LDT-DALI-5CV-4A

Five-Channel DT6/DT8 DALI & Push-Dim LED Controller

A 5-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	5-channel constant-voltage PWM
Maximum output current	4 A per channel at 12/24 V; 3 A per channel at 36/48 V
Maximum output power	240 W at 12 V; 480 W at 24 V; 540 W at 36 V; 720 W at 48 V
Control inputs	DALI + Push-Dim
DALI profiles	DT6, 1 or 5 addresses; DT8-TC/RGB/RGBW/RGB+DUO profiles
Dimming	1-100% as specified in current guide
Dimming curve	DALI logarithmic
PWM frequency	1000 / 2000 / 4000 / 8000 / 16000 Hz
Address assignment	DALI master assignment; local digital display option
Operating temperature	-20 to +55 °C
Maximum case temperature	+85 °C
IP rating	IP20
Body dimensions	187 x 46 x 22 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

5 Channel Constant Voltage DALI LED Dimmer

- 5 channel constant voltage DALI LED Dimmer with digital display.
- DT6 dimming / DT8-TC color temperature / DT8-RGB
  / DT8-RGBW DT8-RGB+DUO light type selectable.
- For DT6 dimming, support 1 DALI address (5 channel synchronized dimming) or 5 DALI address (5 channel independent dimming).
- In accordance with DALI standard protocol IEC 62386-102, IEC 62386-207, IEC 62386-209 and in compliance with DALI products from other international incorporation.
- DALI address can be manually assigned and shown in digital display or automatically assigned by DALI master.
- Connect with external push switch to achieve on/off, brightness, color temperature and RGB color adjustment.
- PWM digital dimming, standard DALI logarithmic dimming curve.
- PWM frequency 1000/2000/4000/8000/16000Hz selectable.
- Over-load / Short circuit / Reverse protection, recover automatically.



DALI CE RoHS

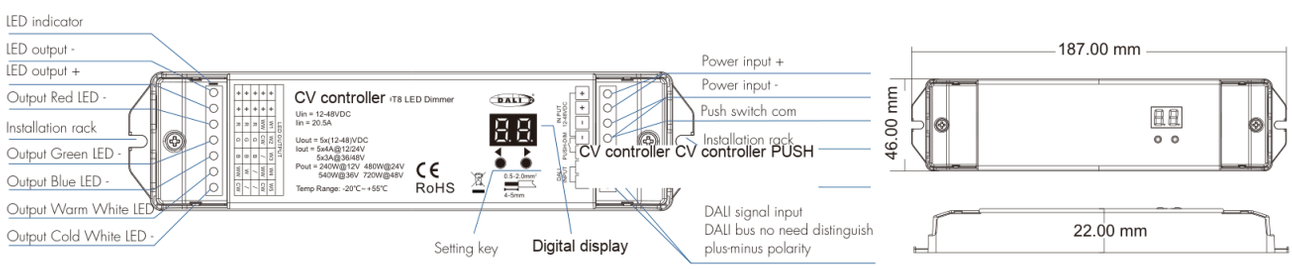
Technical Parameters

Input and Output	
Input voltage	12-48VDC
Output voltage	5×(12-48)VDC
Output current	5×4A@12/24V 5×3A@36/48V
Output power	240W@12V 480W@24V 540W@36V 720W@48V
Output type	Constant voltage
Warranty and Protection	
Warranty	5 years
Protection	Over-load, Short circuit, Reverse protection.

Dimming data	
Input signal	DALI , Push Dim
Dimming range	1-100%
Dimming curve	Logarithmic
PWM Frequency	1000/2000/4000/ 8000/16000Hz
Package	
Size	L190x W50 x H27mm
Gross weight	0.142kg

Safety and EMC	
EMC standard	EN IEC 55015/EN IEC 61547
Safety standard	EN 61347-1/-2
Certification	CE RoHS DALI-2
Environment	
Operation temperature	Ta: -20°C ~ +55°C
Case temperature (Max.)	Tc: +85°C
IP rating	IP20

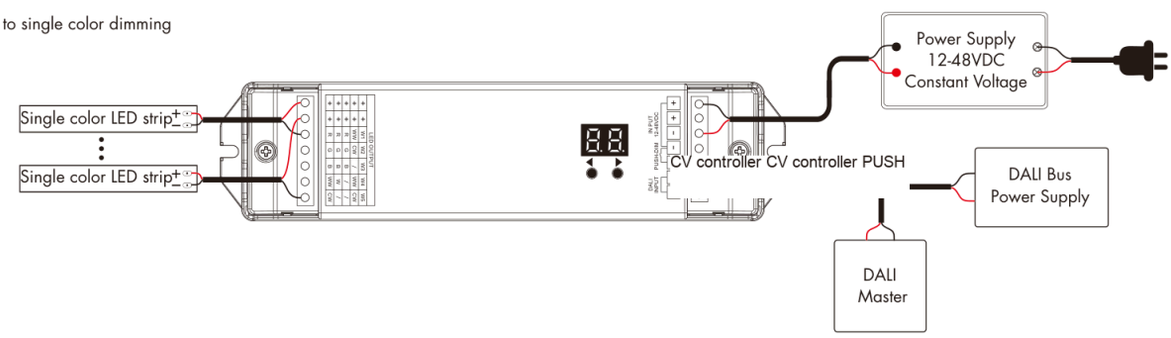
Mechanical Structures and Installations



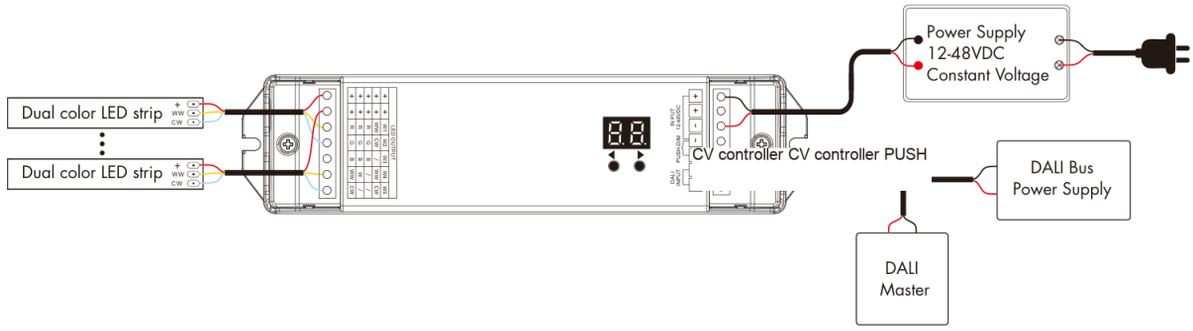
Wiring Diagram

1. CV controller connect with DALI master

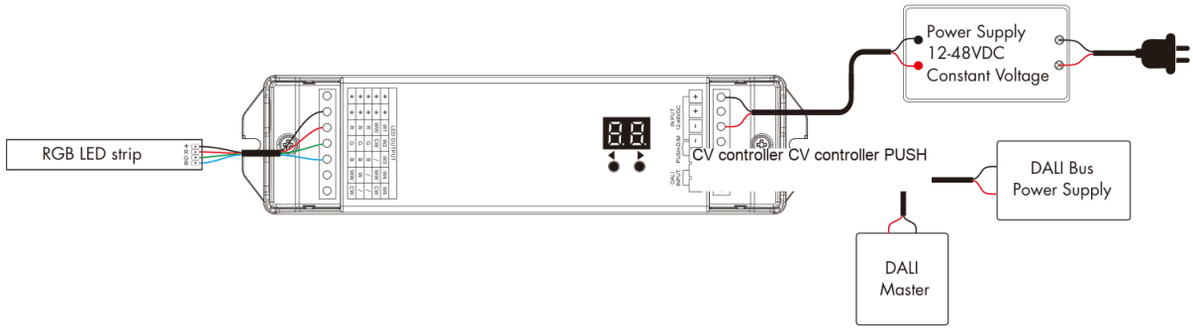
- Apply to single color dimming



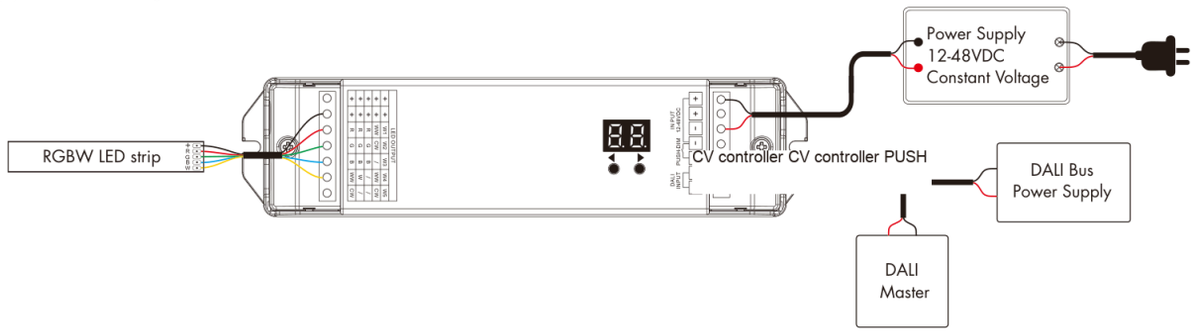
- Apply to color temperature dimming



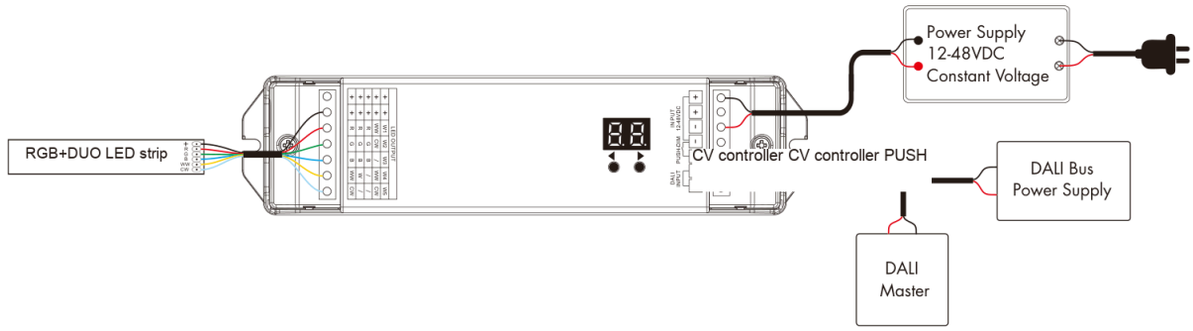
- Apply to RGB dimming



- Apply to RGBW dimming



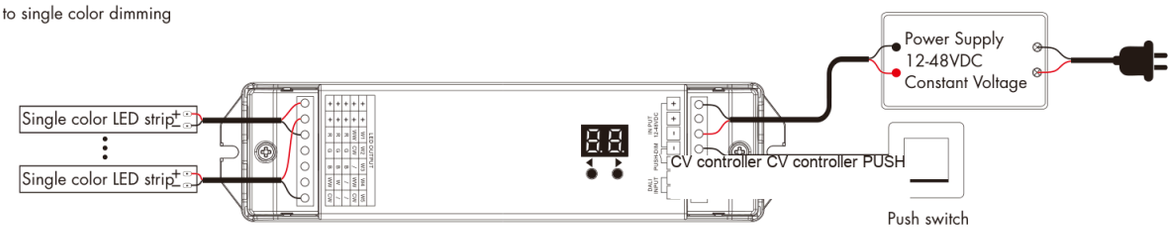
- Apply to RGB+DUO dimming



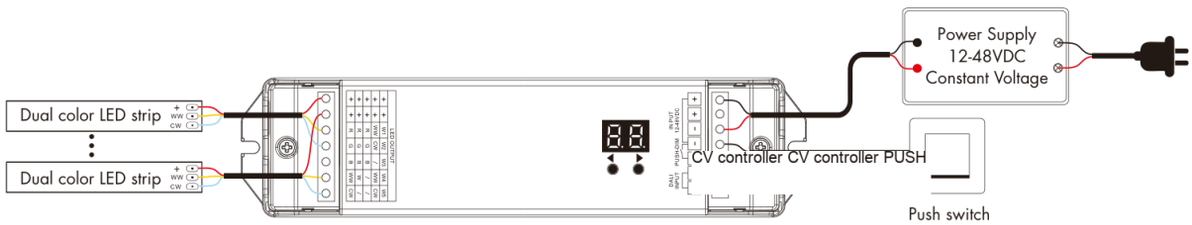
Note: It is not recommended to use both the DALI master and the self-resetting switch for dimming control.

2. CV controller connect with push switch

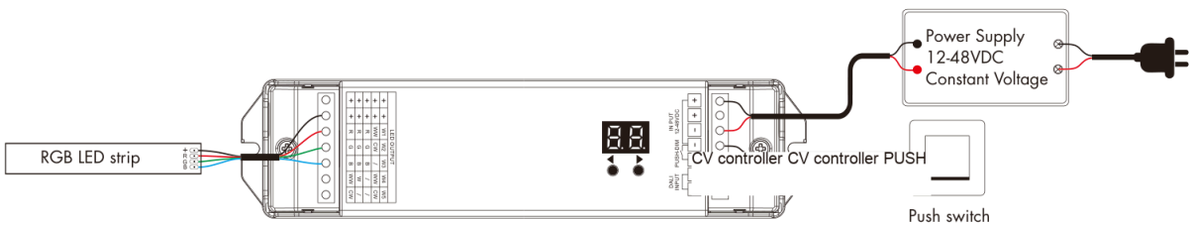
- Apply to single color dimming



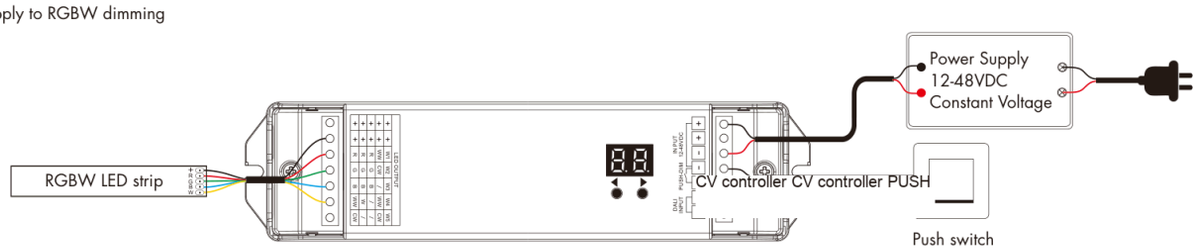
- Apply to color temperature dimming



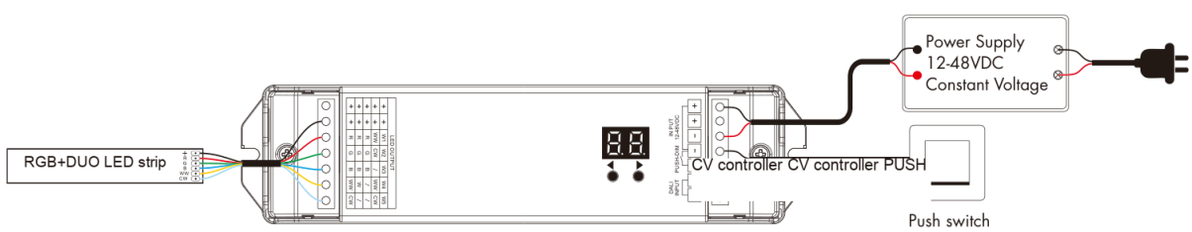
- Apply to RGB dimming



- Apply to RGBW dimming



- Apply to RGB+DUO dimming



Light Type and PWM Frequency Setting

1. Setting the light type

- Please set the light type according to the connected LED strip type.
- Long press ◀ and ▶ buttons at the same time for 2s, ready to set the lighting type, the digital display flashes.
- Short press ◀ or ▶ button to switch 6 light types in sequence: Single color (C1, the dimmer occupy 1 DALI address), Color Temperature (C2), RGB (C3), RGBW (C4), RGB+DUO (C5), 5 channel single color (5C, the dimmer occupy 5 DALI address).
- 10s without operation, automatically exit the light type setting state, the digital display stops flashing.

2. Setting PWM Frequency

- While in the lighting type setting state, long press ◀ and ▶ buttons at the same time for 2s, ready to set PWM frequency, the digital display flashes.
- Short press ◀ or ▶ button to switch 5 kinds of PWM frequency in sequence: 1000Hz(F1), 2000Hz(F2), 4000Hz(F4), 8000Hz(F8), 16000Hz(FA).
- 10s without operation, automatically exit the PWM frequency setting state, the digital display stops flashing.

DALI Address Setting

Set DALI Address via buttons

- Long press ◀ or ▶ button for 2s, prepare for set the start DALI address, the digital display flashes.
- Short press ◀ or ▶ button to set DALI address, long press ◀ or ▶ button for continuous address change.
- The DALI address can be manually assigned from 00-63-FF.
- by factory defaults, no DALI address is assigned for the dimmer, and digital displays "FF".
- 10s without operation, automatically exit the DALI address setting state, the digital display stops flashing.

DALI address assigned by DALI masters

DALI address can also be assigned by DALI Master controller automatically.
Please refer to user manuals of compatible DALI Masters for specific operations.
The digital display will show "AU" When the DALI master is assigning address.
After address is assigned, the digital display will show the start DALI address"xx", xx is from 00 to 63.

Push Switch Function

1. Single color dimming type(1 channel or 5 channel):

- **Short press:** Turn on/off the light.
- **Long press (1-6s):** Step-less dimming, with every other long press, the light level goes to the opposite direction, dimming range 1%-100%.
- **Double click:** Switch between 10% and 100% brightness.

Note: The push switch synchronizes the dimming control of the 5 channels.

2. Color temperature dimming type:

- **Short press:** Turn on/off the light.
- **Long press (1-6s):** Default brightness adjustment, with every other long press, the light level goes to the opposite direction, dimming range 1%-100%.
- **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 (1-6s) to adjust color temperature.
  After 5s of no operation, it will automatically exit color temperature adjustment state.

3. RGB dimming type:

- **Short press:** Turn on/off the light.
- **Long press (1-6s):** Default brightness adjustment, with every other long press, the light level goes to the opposite direction, dimming range 1%-100%.
- **Double click:** Switch between color light (RGB) and mixed white light (current color light + 50% saturation).
  at the same time, enter the state of long press (1-6s) to adjust color light or saturation.
  After 5s of no operation, it will automatically exit color light or saturation adjustment state.

4. RGBW dimming type:

- **Short press:** Turn on/off the light.
- **Long press (1-6s):** Default brightness adjustment, with every other long press, the light level goes to the opposite direction, dimming range 1%-100%.
- **Double click:** Switch between color light (RGB) and white light (W).
  at the same time, enter the state of long press (1-6s) to adjust color light or white light brightness.
  After 5s of no operation, it will automatically exit color light or white light brightness adjustment state.

5. RGB+DUO dimming type:

- **Short press:** Turn on/off the light.
- **Long press (1-6s):** Default brightness adjustment, with every other long press, the light level goes to the opposite direction, dimming range 1%-100%.
- **Double click:** Switch between color light (RGB) and color temperature.
  at the same time, enter the long press (1-6s) to adjust color light or color temperature state.
  After 5s of no operation, it will automatically exit color light or color temperature adjustment state.

Safety & Warnings

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