# DA1-D

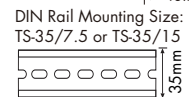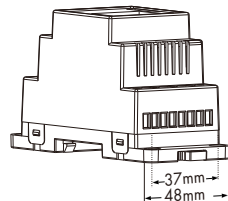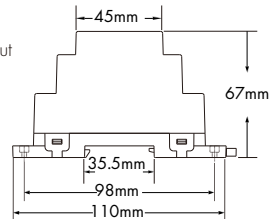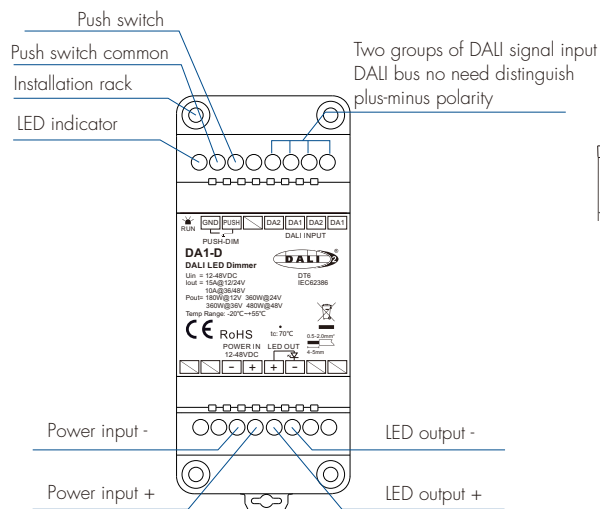## 1 Channel Constant Voltage DALI LED Dimmer

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.
- Standard DALI logarithmic dimming curve.
- Connect with external push switch to achieve on/off and dimming function.
- PWM frequency 500Hz, 2KHz, 8KHz or 16KHz selectable.
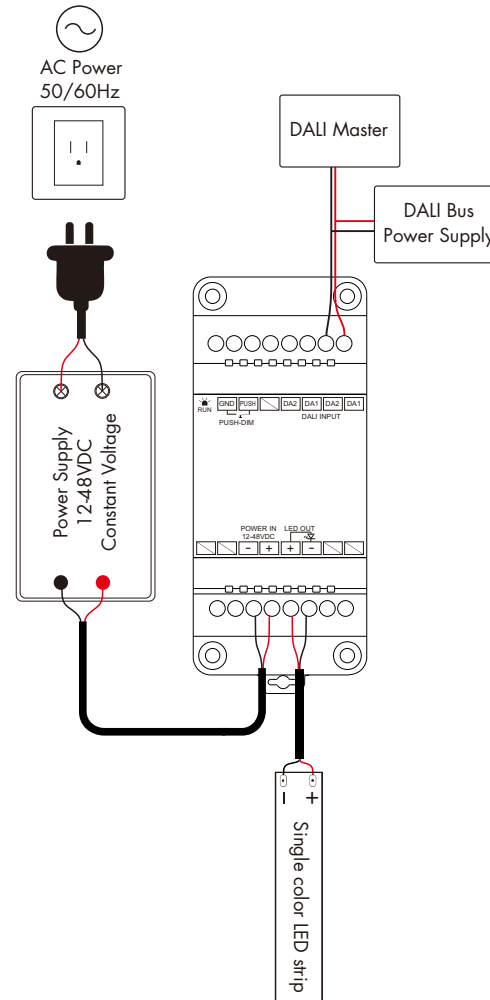- Over-heat / Over-load / Short circuit protection, recover automatically.

DALI2 CE RoHS
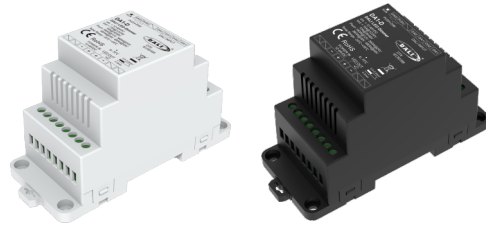
Technical Parameters

Input and Output		Dimming data		Safety and EMC	
Input voltage	12-48VDC	Input signal	DALI + Push Dim	EMC standard	EN IEC 55015 EN IEC 61547
Input current	Max 15A	Dimming range	0-100%		
Output voltage	12-48VDC	Dimming curve	Logarithmic	Safety standard	EN 61347-1/-2 EN 62493
Output current	15A@12/24V 10A@36/48V	PWM frequency	2KHz(default)	Certification	CE RoHS DALI-2
		Environment		**Package**	
Output power	180W@12V 360W@24V 360W@36V 480W@48V	Operation temperature	Ta: -20℃ ~ +55℃	Size	L120 x W78 x H55mm
		Case temperature (Max.)	Tc: +70℃	Gross weight	0.124kg
Output type	Constant voltage	IP rating	IP20	Warranty	5 years

Mechanical Structures and Installations

- Push switch
- Push switch common
- Installation rack
- LED indicator

Two groups of DALI signal input DALI bus no need distinguish plus-minus polarity

RUN GND PUSH DA2 DA1 DA2 DA1
PUSH-DIM DALI INPUT

DA1-D
DALI LED Dimmer
Uin = 12-48VDC   DT6
Iout = 15A@12/24V   IEC62386
       10A@36/48V
Pout= 180W@12V 360W@24V
       360W@36V 480W@48V
Temp Range: -20℃~+55℃

CE RoHS   tc: 70℃   0.5-2.0mm²
POWER IN LED OUT   4-5mm
12-48VDC
- + + -

- Power input -
- Power input +
- LED output -
- LED output +

45mm
67mm
35.5mm
98mm
110mm

37mm
48mm

DIN Rail Mounting Size: TS-35/7.5 or TS-35/15
35mm

Wiring Diagram

- DA1-D connect with DALI master

AC Power 50/60Hz

DALI Master

DALI Bus Power Supply

RUN GND PUSH DA2 DA1 DA2 DA1
PUSH-DIM DALI INPUT

POWER IN LED OUT
12-48VDC
- + + -

Power Supply 12-48VDC Constant Voltage

Single color LED strip

- DA1-D connect with push switch

AC Power 50/60Hz

Push Switch

RUN GND PUSH DA2 DA1 DA2 DA1
PUSH-DIM DALI INPUT

POWER IN LED OUT
12-48VDC
- + + -

Power Supply 12-48VDC Constant Voltage

Single color LED strip
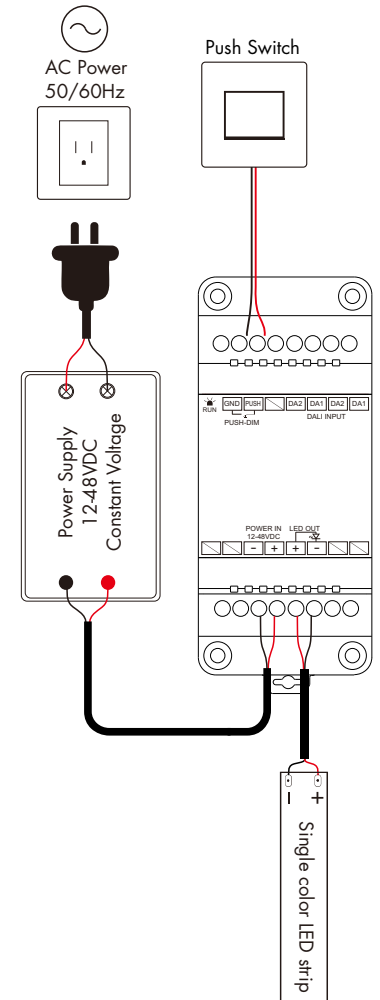
DALI Control

● 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:

U_{in} \ I_{out} \ PWM	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.