LDT-A10-PUSH-1CV-15A

0/1-10V & Push-Dim Controller, Voltage-Derated Output

Convert analogue dimming inputs into a correctly rated low-voltage PWM LED output. The input control signal is separate from the DC supply that powers the LED load.

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	0/1-10V + Push-Dim
Dimming	0-100%
PWM frequency	500 / 2000 / 8000 / 16000 Hz
Dimming curve	Linear or logarithmic
Operating temperature	-20 to +55 °C
Maximum case temperature	+85 °C
IP rating	IP20
Body dimensions	175 x 45 x 27 mm

No proprietary RF receiver is specified for this model. The 15 A figure falls to 10 A at 36/48 V; PWM-frequency current derating also applies.

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.

0/1-10V

0/1-10V LED Dimming Driver

Features

- 1 channel 0/1-10V LED dimming driver with push-dim function.
- 1 channel 0/1-10V input, 1 channel PWM constant voltage output.
- Logarithmic or linear dimming curve selectable.
- Compatible with active or passive 0-10V, 1-10V dimmer, can solve the fluorescent lamp dimming system compatible with LED lighting.
- PWM frequency 500Hz, 2kHz, 8kHz or 16kHz selectable
- Over-heat / Over-load / Short circuit protection, recover automatically.



FC CE RoHS

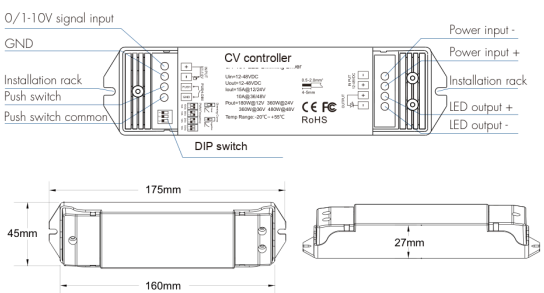
Technical Parameters

Input and Output	
Input voltage	12-48VDC
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
Warranty	
Warranty	5 years

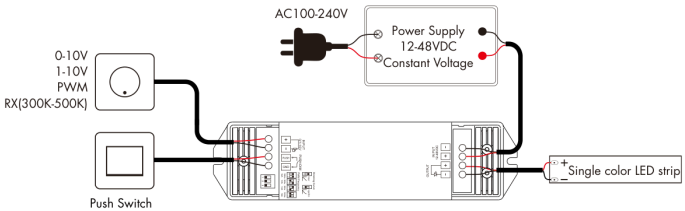
Dimming data	
Input signal	0/1-10V + Push Dim
Dimming gray scale	4096 (2^12) levels
Dimming range	0-100%
Dimming curve	Logarithmic or linear
PWM Frequency	500Hz, 2kHz, 8kHz, 16kHz
Environment	
Operation temperature	Ta: -20°C ~ +55°C
Case temperature (Max.)	Tc: +85°C
IP rating	IP20

Safety and EMC	
EMC standard	EN IEC 55015 EN IEC 61547
Safety standard	EN 61347-1/-2 EN 62493
Certification	CE RoHS FCC
Package	
Size	L178 x W50 x H38mm
Gross weight	0.124kg

Mechanical Structures and Installations



Wiring Diagram



Note:

- The 0/1-10V input is operable via commercially available simple rotary wall switchs designed for 0/1-10V dimming equipment or from decicated system central dimming controllers.
- Compliant with 0-10V, 1-10V, 10V PWM, RX(4 in 1).
- We recommend the number of LED drivers connected to 0/1-10V dimmer does not exceed 50 pieces, the maximum length of the wires from dimmer to LED driver should be no more than 50 meters.
- If the LED driver be used with Push-Dim interface prior to using the 0/1-10V interface, the 0/1-10V signal should change over 10% to return 0/1-10V control.

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.
- **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

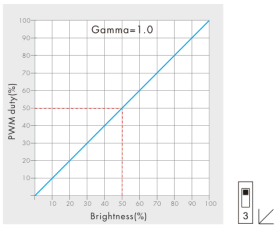


16KHz	8KHz	2KHz	500Hz	
10A	10A	12A	15A	(12-24V)
6A	8A	10A	10A	(36-48V)

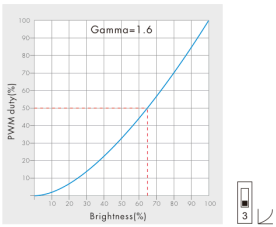
We can select four PWM frequency: 500Hz, 2KHz, 8KHz,16KHz.
Higher PWM frequency, will cause lower output current, higher power noise, but more suitable for camera(No flickers for video).

Dimming Curve Setting

Linear dimming curve



Logarithmic dimming curve



Malfunctions Analysis & Troubleshooting

Malfunctions	Causes	Troubleshooting
No light	1.No power. 2.Wrong connection or insecure.	1. Check the power. 2. Check the connection.
Uneven intensity between front and rear,with voltage drop	1. Output cable is too long. 2. Wire diameter is too small. 3. Overload beyond power supply capability. 4. Overload beyond controller capability.	1. Reduce cable or loop supply. 2. Change wider wire. 3. Replace higher power supply. 4. Add power repeater.

Installation Precautions

1. The product shall not be stacked, the distance should be ≥ 20cm,
   so as not to affect lifespan of the products due to poor heat dissipation.
2. The product shall not be installed close to the switching power supply with an interval of ≥ 20cm
   to avoid radiation interference of the switching power supply.