

Teralux 0/1-10V LED Strip Controller (LV-L) User manual

Teralux 0/1-10V LED Driver



CE RoHS FC

Teralux Office

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TE-15A

Teralux TRIAC LED Driver

The Teralux PWM Constant Voltage 0/1–10V LED Dimmer is a professional-grade dimming driver designed for architectural, commercial, and decorative lighting systems. Supporting both active and passive 0–10V / 1–10V inputs as well as push-dim control, this device delivers stable, precise, and flicker-free dimming performance. Ideal for upgrading fluorescent fixtures to LED or integrating into modern smart lighting installations.

Features

Single-channel 0/1–10V LED dimming with push-dim functionality.

Supports active and passive 0/1–10V input; PWM constant-voltage output.

Selectable dimming curve: logarithmic or linear.

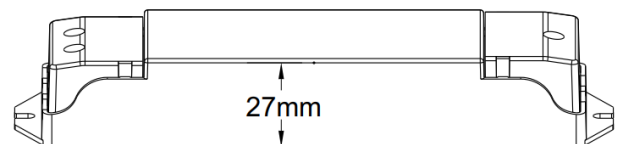
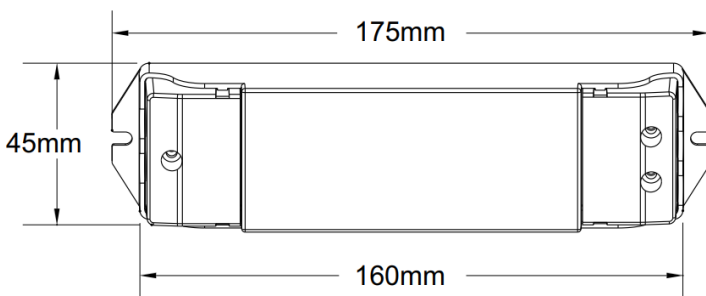
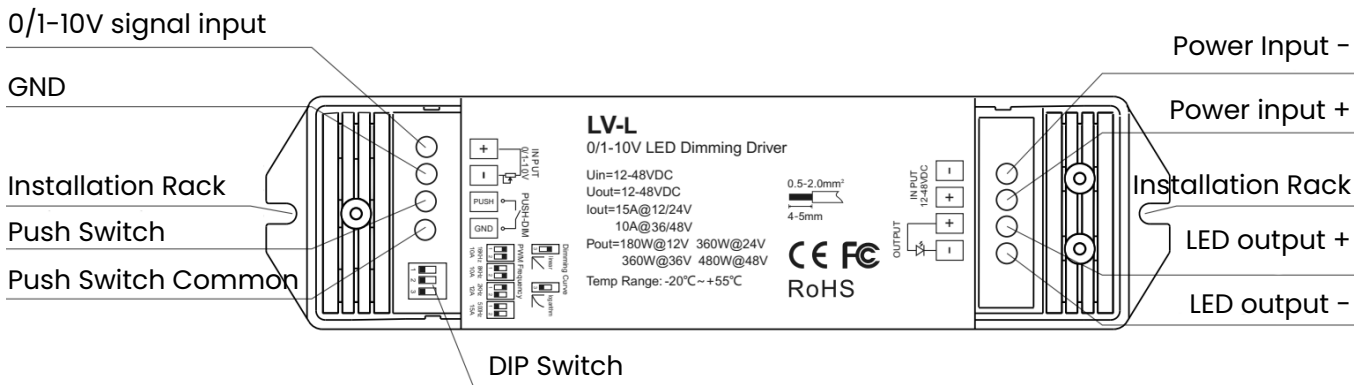
Adjustable PWM frequency: 500 Hz, 2 kHz, 8 kHz, 16 kHz.

Resolves compatibility issues when replacing fluorescent lighting with LED.

Built-in protection against overheat, overload, and short circuit with auto-recovery.

Smooth 0–100% dimming with stable light output.

Mechanical Structure



Technical Parameter

Category	Item	Specification
Input & 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	480W@48V
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 FC

AC Push-Dim Function

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

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:

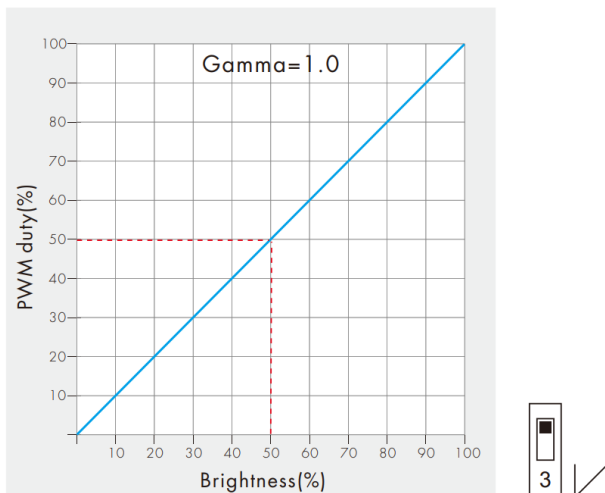
Light returns to the previous dimming level when switched off and on again, even at power failure.

Synchronization:

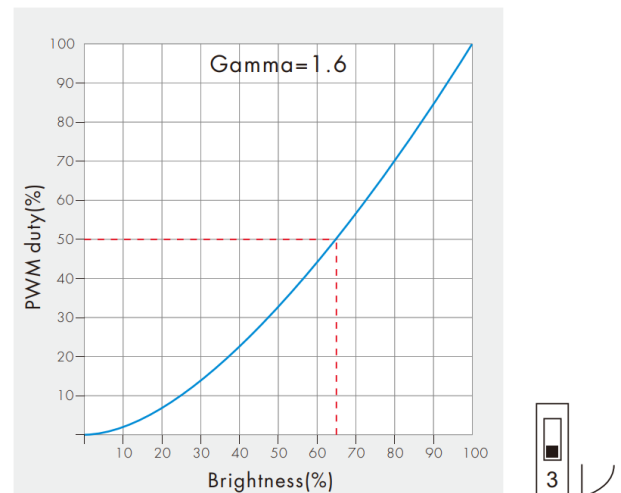
If more than one controller are connected to the same push switch, do a long press for more than 10s, then the system is synchronized and all lights in the group dim up to 100%. This means there is no need for any additional synchrony wire in larger installations. We recommend the number of controllers connected to a push switch does not exceed 50 pieces. The maximum length of the wires from push to controller should be no more than 50 meters.

Dimming Curve Setting

Linear Dimming Curve



Logarithmic Dimming Curve



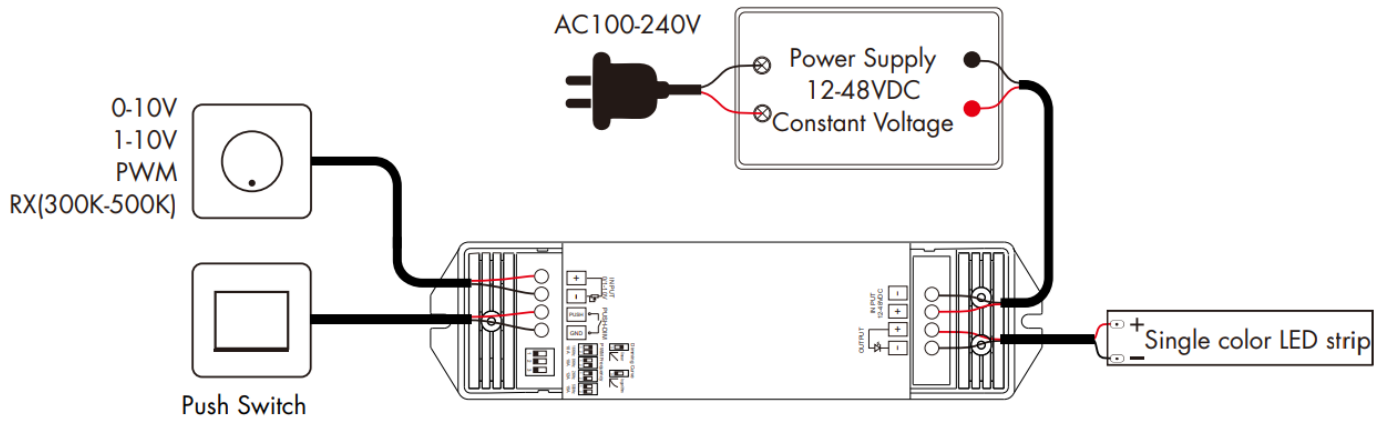
PWM Frequency Setting



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

Adjustable 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).

Wiring Diagram





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