TERALUX

0/1-10V Series

Teralux **0/1-10V Series**
User Manual

LED Controller 0/1-10V Product Guidelines

CE RoHS

Teralux Office

Komp. Ruko Harmoni Mas, Jl. Jemb. Dua Raya No.15 blok A, RT.1/RW.3, Pejagalan, Penjaringan, North Jakarta City, Jakarta 14450

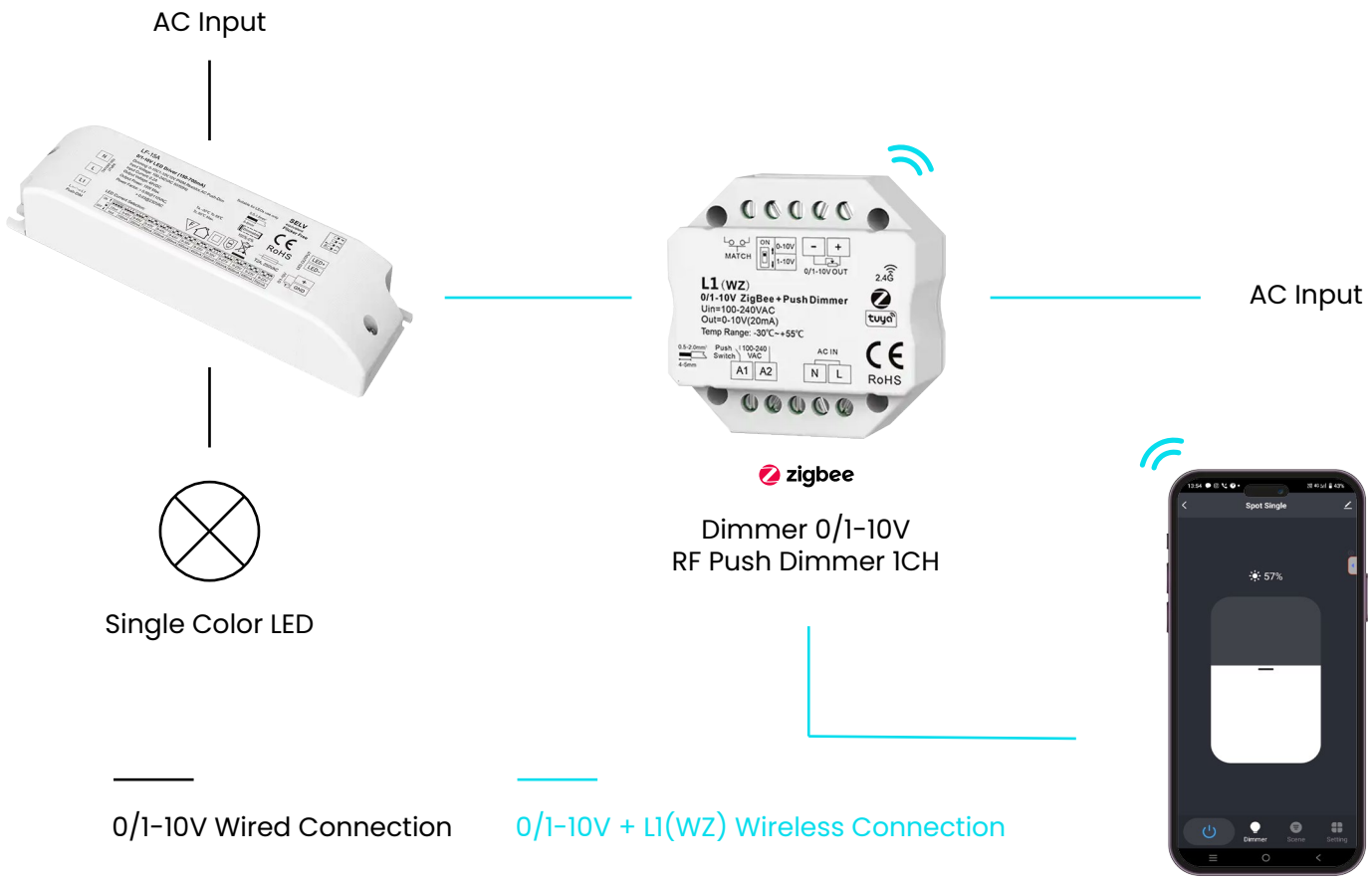
teraluxliving.com

Teralu 0/1-10v Series

TERALUX 0/1-10V Constant Current LED Driver

The 0/1-10V series perfectly solves the problem of compatibility between the fluorescent lamp dimming system and LED lighting. SKYDANCE 0/1-10V series products have a built-in high-performance MCU that supports five-in-one dimming, and 0~100% dimming range.

Logarithmic characteristic dimming, compatible with various brands of 0/1-10V dimmers and control systems on the market, such as Lutron, EVITIN, Schneider, etc. SKYDANCE 0/1-10V series includes 0/1-10V panel dimmer, RF or DMX to 0/1-10V signal converter, 0/1-10V low voltage dimming driver, 0/1-10V dimming constant voltage power supply, 0/1-10V dimming constant current power supply and other products, provide a complete 0/1-10V lighting control System solution.

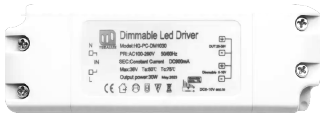


Technical Parameter
TERALUX 0/1-10V Constant Current LED Driver

Engineered for constant-voltage LED applications, this ZigBee 3.0 controller series provides accurate power output, high current capacity, and optimized thermal stability.

0-10V LED Driver 150-700mA 9-45V 15W

Output Current	150–700mA
Output Voltage	9–45V
Output Power	15W
Channels	1CH
Applications	Indoor lighting



0-10V LED Driver 600mA 25-36V 20W

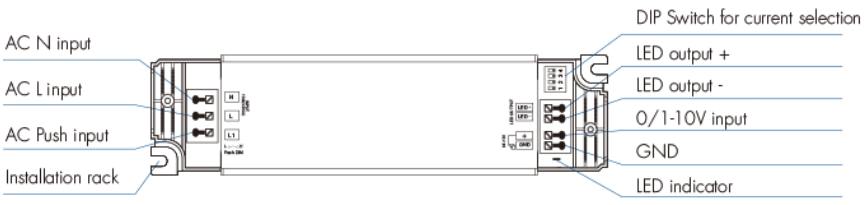
Output Current	600mA
Output Voltage	25–36V
Output Power	20W
Channels	1CH
Applications	Indoor lighting

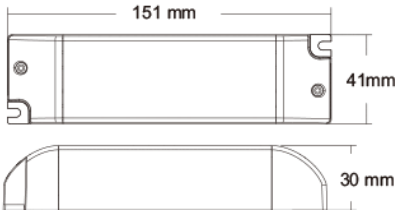
0-10V LED Driver 900mA 25-36V 30W

Output Current	900mA
Output Voltage	25–36V
Output Power	30W
Channels	1CH
Applications	Indoor lighting

Mechanical Structure & Current Selection
TERALUX 0/1-10V Constant Current LED Driver

Detailed mechanical layout and wiring instructions for the 0/1-10V Constant Current LED Driver to ensure accurate installation and smooth system functionality.





1 2 3 4												
Output Voltage	9-45V	9-45V	9-45V	9-45V	9-43V	9-38V	9-33V	9-30V	9-27V	9-25V	9-23V	9-22V
Output Current	150mA	200mA	250mA	300mA	350mA	400mA	450mA	500mA	550mA	600mA	650mA	700mA
Output Power	1.35-6.75W	1.8-9W	2.25-11.25W	2.7-13.5W	3.15-15.05W	3.6-15.2W	4.05-14.85W	4.5-15W	4.95-14.85W	5.4-15 W	5.85-14.95 W	6.3-15.4 W

Wiring Diagram 0/1-10V Connection

The 0/1-10V input can be operated using either standard, commercially available simple rotary wall switches that are specifically designed for 0/1-10V dimming equipment or via signals received from dedicated system central dimming controllers.

This system is designed to be compliant with multiple dimming protocols, including 0-10V, 1-10V, 10V PWM, and RX (4 in 1), ensuring broad compatibility.

To ensure proper dimming consistency, the maximum number of connectable LED drivers is determined by the dimmer's output signal current. If the connected 0/1-10V dimmer output signal current is 20mA, the number of LED driver connections should not exceed 50 pieces. If the dimmer output signal current is higher, at 50mA, the number of LED driver connections can be increased, not exceeding 100 pieces.

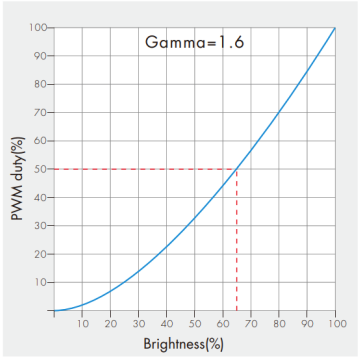
For the installation wiring, the maximum length of the wires running from the dimmer to the LED driver must be no more than 50 meters. It is specified that the wiring must use copper wire with a cross-sectional area of 0.75 mm² for optimal performance.

If the LED driver was initially used with the Push-Dim interface before attempting to switch to the 0/1-10V interface, the 0/1-10 V signal must register a change of over 10% of its value to successfully return control back to the 0/1-10 V system.

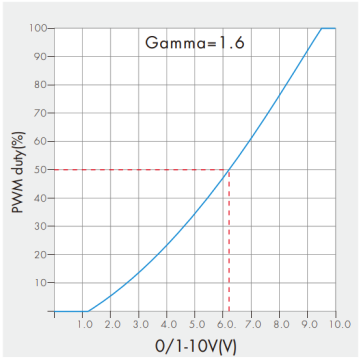
Finally, to safeguard the product's lifespan by ensuring proper heat dissipation, the products should not be stacked. A minimum separation distance of ≥20cm must be maintained between them.

Dimming Curve

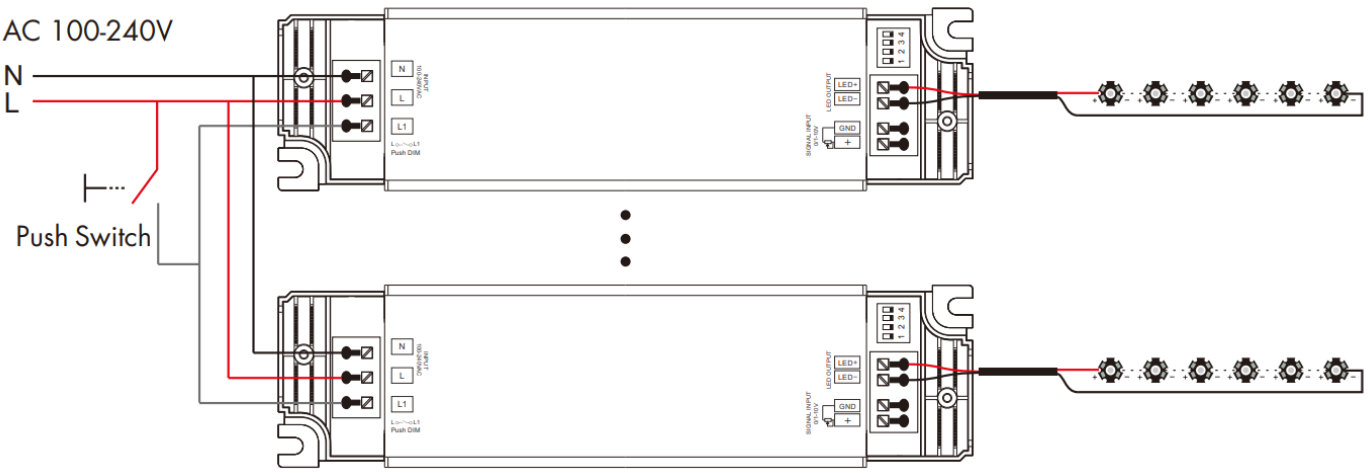
Push dimming



0/1-10V dimming



AC Push-Dim Connection



- The AC Push-Dim interface is designed for simple light dimming control using standard non-latching (momentary) wall switches. The basic operation of the light is managed by a short press of the switch, which serves to either turn the light on or off.

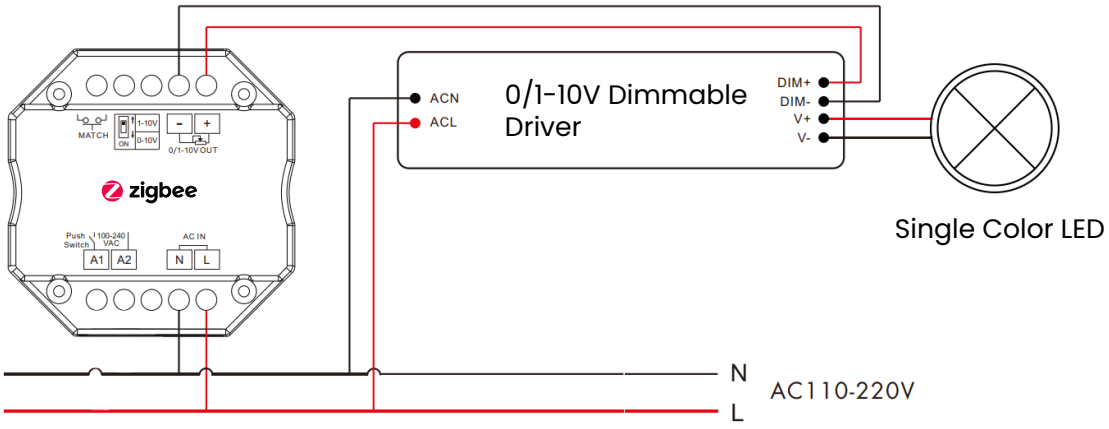
- For adjusting the brightness, a long press of the switch, held for between 1 and 6 seconds, activates the stepless dimming function. A key feature of this dimming method is its alternating nature: each subsequent long press will cause the light level to move in the opposite direction (e.g., dimming down if it was previously dimming up).

- The interface includes a helpful Dimming memory feature, ensuring that the light will return to its last set brightness level when it is turned back on. This memory is persistent, meaning the dimming level is retained even after a complete power failure.

- For installations with multiple drivers, the system offers automatic Synchronization. If more than one LED driver is connected to the same switch, all connected lights can be perfectly synchronized by performing an extended long press of more than 10 seconds, which forces all lights in the group to dim up to 100%. This eliminates the need for any dedicated synchrony wiring in larger setups. For reliable operation, it is recommended not to exceed 25 LED drivers per switch, and the wiring length from the switch to the LED driver should be kept under 20 meters.

0/10V + L1(WZ) for a Wireless Connection via Tuya App

1. Wiring Diagram

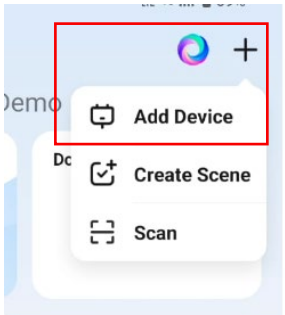


Note:
To maintain consistent dimming performance, it is recommended that no more than 50 LED drivers are connected to the 0/1–10V dimmer. The wire length between the dimmer and the LED driver should not exceed 50 meters, and copper wiring with a cross-sectional area of 0.75 mm² should be used.

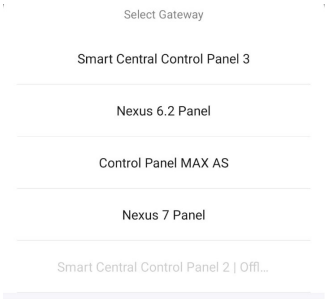
Switch off the power, then switch it back on, and repeat the process once more.

Immediately afterward, short-press the match key three times. The light's on/off time will then toggle between 3 seconds and 0.5 seconds.

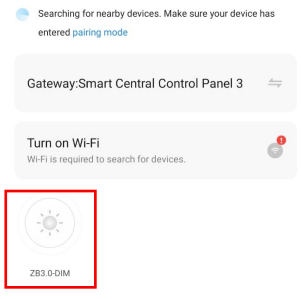
2. Tuya Smart APP Network Connection



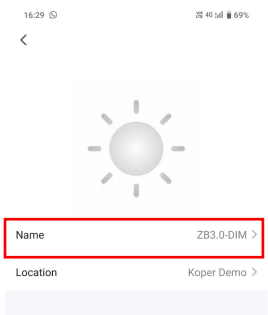
Add new device via Tuya App



Select nearby gateway

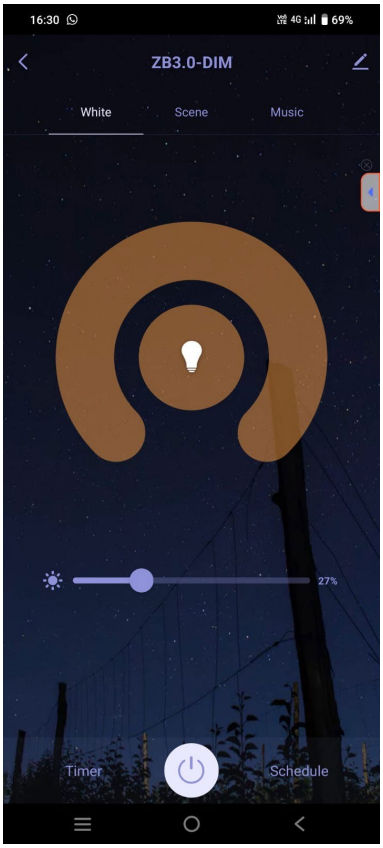


Detected device will appear in the list



Rename for easy recognition

3. App Interface for Single Color Dimming



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