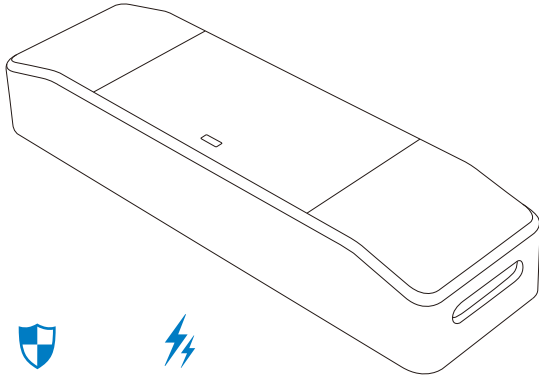








Constant Voltage PWM

# LED Amplifier

XA10 / XA20 / XA30 / XA40

Single color to RGB+White  
Full protection  
Push connector

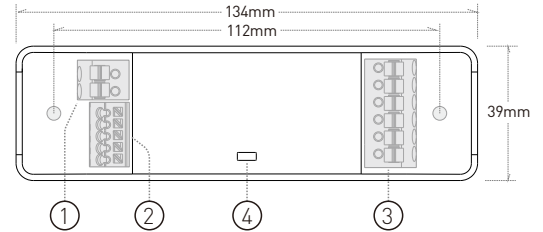


-  Full Protection
-  High Power
-  Push Terminal
-  5-24 Volt
-  Cable Holder
-  Status Indicator

## ■ Introduction

XA10-XA40 LED amplifier is designed to amplify constant voltage LED control signal and drive constant voltage LED products with common anode connection, the working voltage range is DC5-24V. This series amplifier has power input, signal input and LED output connectors with cable holder. The amplifier has full protection feature against overload, short circuit, over heat and wrong wiring. A multi-color indicator on the top displays all working status of the amplifier.

## ■ Dimension & Terminal



### 1. Power supply input

Connect to power supply. The amplifier can accept supply voltage from DC 5V to 24V, please press the connector top and insert the power cable with polarity referring to the print on the top. The maximum cable gauge is AWG12 or 2.5mm<sup>2</sup>. The power voltage must be same as the input signal's voltage level. Please make sure the power supply voltage is correct and the power wattage is capable for the load wattage. Please be noted the power input '+' unit inside is directly connected to the output terminal's '+' unit.

### 2. Signal input

Connect the LED driving signal to this connector. The signal could come from LED controller or LED loads, the driving signal voltage must be the same as the amplifier power voltage. Please make sure the common anode cable is connected to terminal marked with 'signal +' and signal for each channel connected to relevant input terminal.

### 3. LED output

Connect to LED loads. The LED loads need to be constant voltage driving and with common anode connection (except single color model). Please make sure the LED rated voltage is same as the power supply and each channel's maximum load current is below the controller's rated current. Please press the connector top to insert the cable with function referring to the print on the top of controller. The maximum cable gauge is AWG12 or 2.5mm<sup>2</sup>.

### 4. Work status indicator

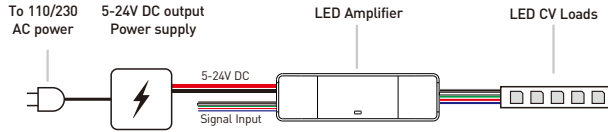
This indicator shows all working status of the amplifier. It displays different events as following:

**Steady green:** Normal working.

**Yellow flash:** Overheat protection.

**Red flash:** Overload / short circuit protection.

### 5. Wiring diagram



## Advanced features

### 6. Protection function

The amplifier has full protection function against wrong wiring, output short circuit, overload and overheat. It will stop working and the indicator will flash red at overload or short circuit situation, the indicator will flash yellow at overheat situation. The amplifier will try to recover from protection every 10 seconds after protection occurred, and will automatically recover working when the condition is good.

To avoid the protection situation, please make sure the output cables are well insulated, ensure the LED loads are in the rated range and capable for constant voltage PWM driving. Also the amplifier needs to be installed at a place with good ventilation or heat dissipation condition.

## Specification

Model	XA10	XA20	XA30	XA40
Function	Single Color	Tunable White	RGB	RGB+White
Working voltage	DC 5-24V			
Rated output current	1x16A	2x8A	3x8A	4x8A (Total 24A max)
Standby current	<15mA			
Signal voltage range	Power voltage $\pm$ 3V			
Time shift	< 5 $\mu$ S			
Output mode	PWM constant voltage			
Overload protection	Yes			
Overheat protection	Yes			
Working temperature (Ta)	-20°C~+55°C			
Dimension	134x39x23.5mm			