



Eco-Dim DC Dimmable LED Module

The XLD Dimmer is a revolutionary dimming module designed to integrate into your LED Lighting fixture to enable smooth, Pulse Width Modulated (PWM) dimming. With its form fitting design, the module is engineered to fit inside any lighting fixture and when combined with a variable resistor/ potentiometer will provide smooth flicker free dimming. This unit supports up to 28VDCx1000mA, or 28 Watts of input power. This module is compatible with any AC/DC Converter making it an ideal accessory for your dimming needs.

XLD-DIM

DC/DC (PWM) Dimmable LED Drivers



Features

- Revolutionary high flexibility design
- Provides smooth flicker free PWM dimming
- Ultra Slim Form Factor
- Up to 95% Efficiency
- Low Cost

Benefits

- Supports any CV/CC adapter, can be combined with a wide range of potentiometer/variable resistors
- No CRI shifts and provides reliable dimming
- Can be easily integrated into any lighting fixture
- Saves energy and improves payback
- Ideal for Aggressive Price Program Needs

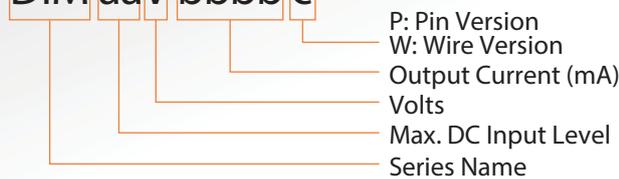
Applications

- Architectural Lighting
- Effect & Contour Lighting
- Office General Illumination
- Strip Lighting
- Residential Lighting
- Hotel



Model Selection Key

XLD-DIM aaV bbbb c



Models		Max. Output Volts (V)	LED Output Compliance Voltage Range	Recommend Input Current (A)	Max. Output Current (A)	Max Output Power (W)	Max. Efficiency*
Pin Version	Wire Version						
XLD-DIM28V350P	XLD-DIM28V350W	Vin - 2V	Vout(max) to 2.5V	> 0.4	0.35	9	>90%
XLD-DIM28V700P	XLD-DIM28V700W			> 0.8	0.70	18	>90%
XLD-DIM28V800P	XLD-DIM28V800W			> 1	0.80	21	>90%
XLD-DIM28V1000P	XLD-DIM28V1000W			> 1.1	1.00	26	>90%

*The closer DC input voltage to total LED Vf, the higher power efficiency!

Input Specification

Operating Voltage Range	10 - 28 VDC (+/-5%)	Operating Current	Pls. refer to model table
External Potentiometer	20K Ω – 100K Ω (Recommended 50 K Ω B-Type)	Short Circuit Protection	Hiccup-Mode, Auto-Recovery upon removal of short circuit condition.
Under voltage Logout	Under 8V auto shutdown	Over Current Protection	Constant-current limiting
Operating Voltage Range	10 - 28 VDC (+/-5%)		

Output Specification

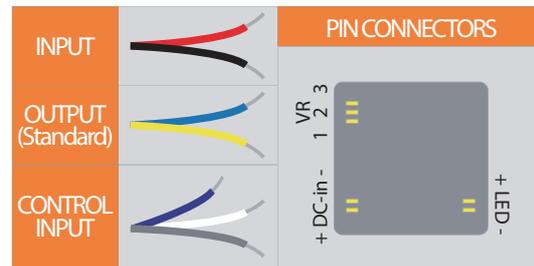
Current	Please refer to output table (1-6 LEDs in series)	Output Frequency	200~1000 Hz PWM (Up on external potentiometer value from 20K Ω – 100K Ω , Recommend 50K Ω for 500Hz PWM Frequency)
Efficiency	Up to 90% Typ.	Dimming Range	0~99% duty cycle @ 500Hz
		Output Voltage Range	2.5V to Vout max. DC *DC input voltage must be greater than Vout (max) by 2V

Environmental Specification

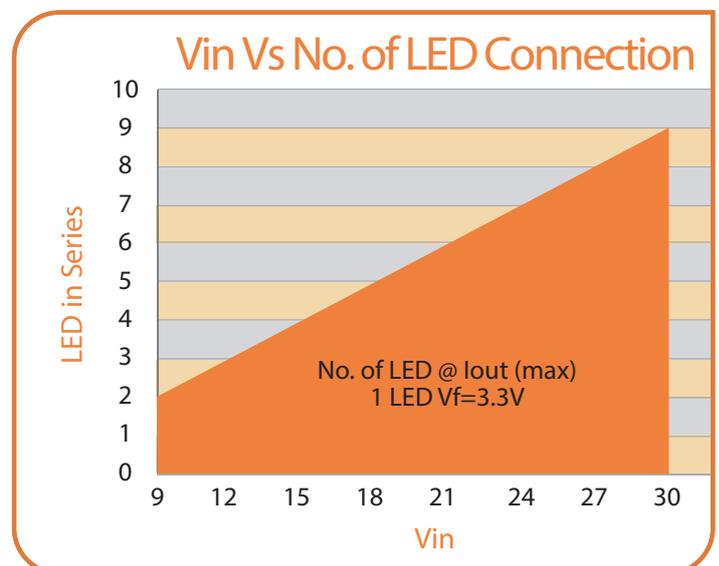
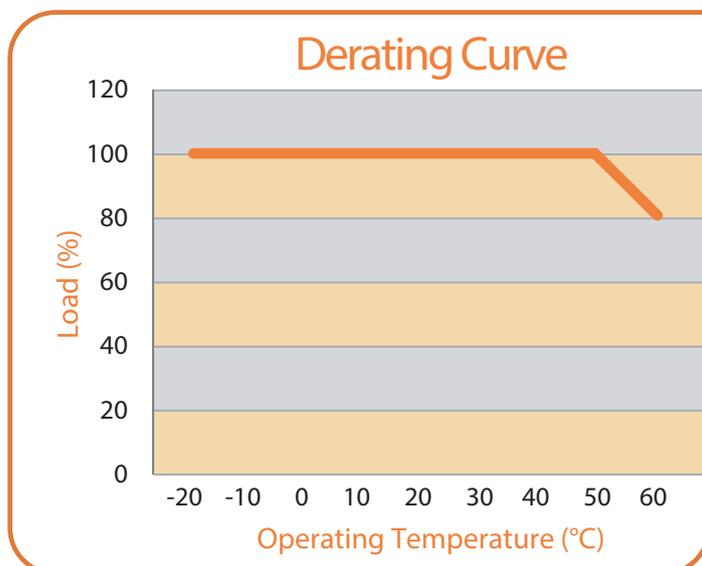
Cooling	Ambient Temperature	Storage Temp	Relative Humidity
Convection	-20°C- 50°C (Full load)	-40°C- 85°C	5% - 95 %

Mechanical Specification

Power Unit Dimensions	38mm (L) 33mm (W) 11mm (H)
Housing Design/Material	Fully isolated Class 2 casing with Potting
Wire Size: 1) Input and Output Wires: All 22AWG standard, UL1430, 105 deg C 2) Potentiometer Interface: All 28AWG standard, UL1440, 105 deg C with 2.54mm pitch female connector	Wire Length: 100mm



Reliabilities Curves

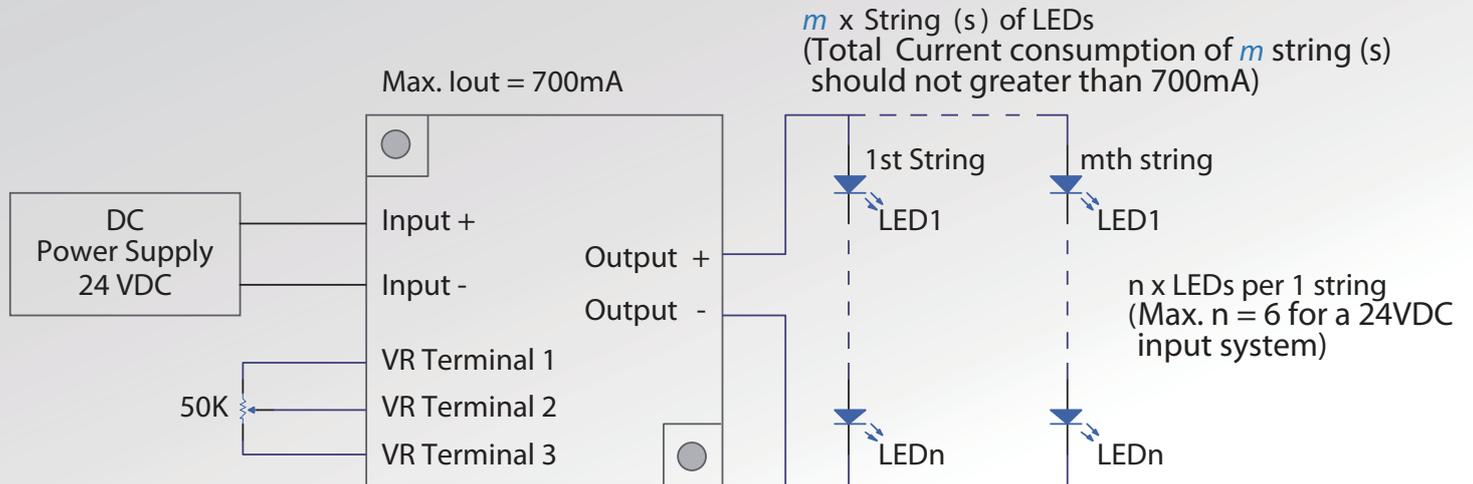


Connection Diagrams Examples

XLD-Dimmer Wire Version

24V DC input Connection

1-6 LED @ 700mA(max), 500Hz PWM dimming frequency using XLD-DIM28V700 module

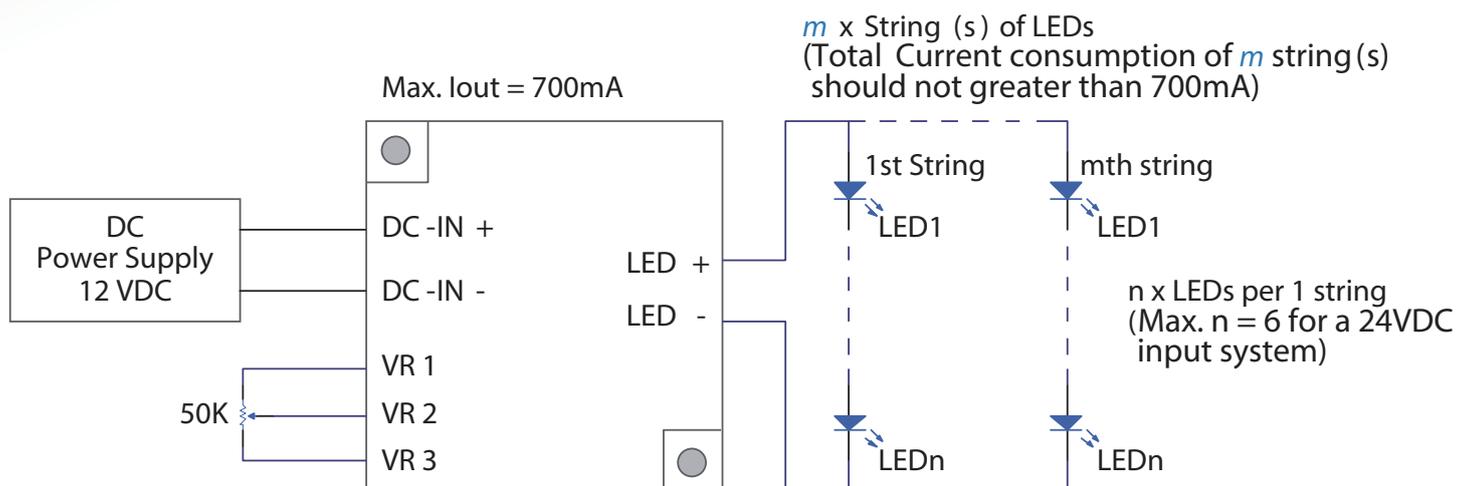


Note: Each LED $V_f = 3 \sim 3.5V$

XLD-Dimmer Pin Version

12V DC input Connection

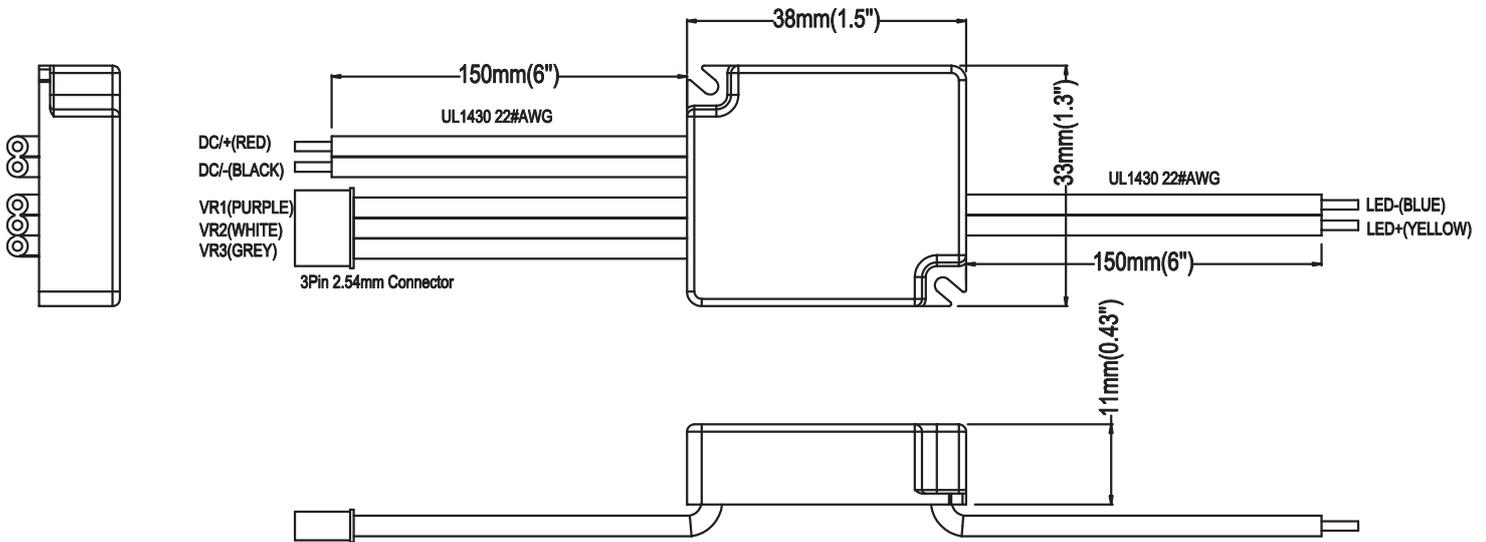
1-3 LED @ 700mA(max), 500Hz PWM dimming frequency using XLD-DIM28V700 module



Note: Each LED $V_f = 3 \sim 3.5V$

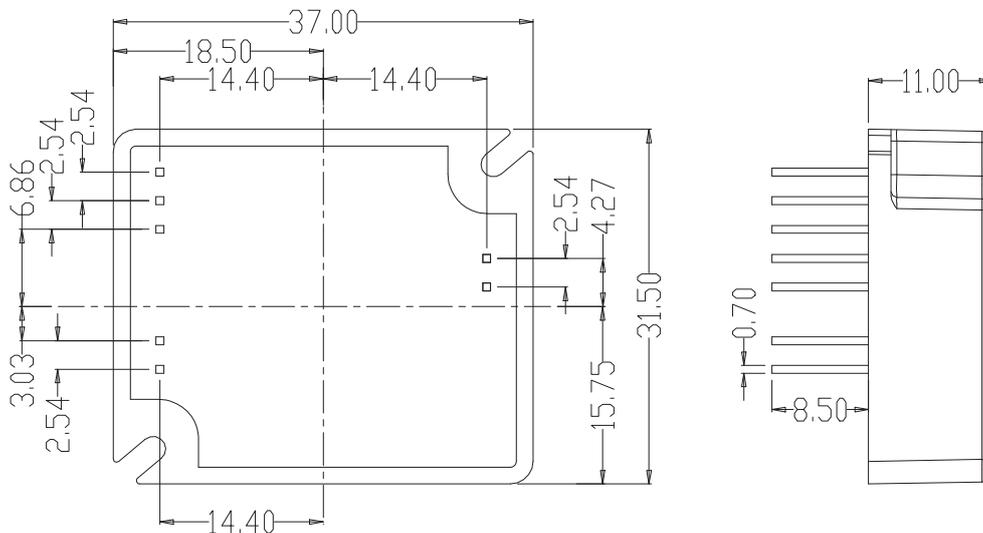
Mechanical Diagrams

XLD-Dimmer Wire Version



Packing Information
 Weight: 25 g/pcs,
 60pcs/ carton - 2.86 kg /carton; L245xW225xH180 (mm)

XLD-Dimmer Pin Version



Recommend PCB layout pin pads in Ø 1.1mm holes

Packing Information
 Weight: 20 g/pcs,
 60pcs/ carton - 2.56 kg /carton; L245xW225xH180 (mm)

GRE Alpha undertakes extensive testing on its dimming modules to ensure dimming compatibility and performance to our best ability. However due to rapidly evolving technology and the wide number of dimmers available GRE Alpha makes no specific recommendations on dimming system selection for its dimming modules and there are no warranties of performance or compatibility implied. Please test product for dimming compatibility before use.

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