



SLD-DIM1X

DC/DC (1-10V + PWM)
LED Dimming Module



Smart-Dim 150 W LED Dimming Module

GRE Alpha's SLD Smart-DIMX dimming module features ultra high resolution dimming. With 10,000 dimming steps and GRE Alpha's advanced digital filtering technology, the SLD-DIM1X dimming module provides best in class, flicker-free (PWM) pulse width modulated dimming for 0-10V dimming applications. This easy-to-install dimming module works with commercial 0-10V dimmer controls (1V=0% brightness, 10V=100% brightness), and connects between any Class 2, AC-DC LED driver and LED Fixture/Luminaire to enable exceptional, flicker free dimming. The SLD Smart-DIMX can be incorporated into any of our SLD/XLD series LED driver's DC wiring cavity, eliminating the need for external junction boxes, resulting in a quick, low cost installation.

Feature

- Wide range DC input: 8V - 48V
- 0/1-10V Dimmer compatible (IEC 60929 Annex E)
- Flicker-free 0-100% dimming
- High precision dimming ratio : 1:10,000
- Digital Filtering to ensure ultra high resolution dimming
- Fully isolated plastic housing
- Comply with EN55015 and FCC Part 15 without additional EMI/RFI filtering
- Compact size, high reliability
- 3 years warranty

Application

- Architectural Lighting
- Effect & Contour Lighting
- Office General Illumination
- Warehouses
- Street Lighting
- Signage
- Strip Lighting
- Swimming Pools/Fountain lighting

Model	Input Voltage Range (Vdc)	Output Voltage Range *	Max. Output Current (A)	Max Output Power (W)	Power Efficiency (Typ)
SLD-DIM1X	8 - 48V	Vin - 0.2~0.5V	5	150	97%

*- SLD-DIM dimming module requires an external CV LED driver, connected to the DC input, and should not exceed the above input voltage range.

*- UL Class 2 certified for use with UL Class 2 LED Drivers.

* UL marking: for products manufactured in Vietnam only, effective October 2020.

Input Specification

Voltage Range	Please refer model table	Input Current	5.1 A Max
Control Voltage	0/1-10VDC Dimmer *The external control source to the SLD-DIM purple and grey control wires should have the capability to sink a min. of 10mA for multiple SLD-DIM modules connected together. A minimum current sink of 1mA is recommended for a single module*	Control Range	0-100%v ≤1V = 0% light output 10V =100% light output
Short Circuit Protection	Hiccup-Mode, Auto-Recovery upon removal of short circuit condition.	Over Voltage	Auto Recovery upon input voltage under Vin (max)
Over Temperature Protection	Auto recovery upon operating temperature <105°C	Under voltage Logout	Auto Recovery upon input voltage over Vin (min)

Output Specification

Output Frequency	1kHz PWM	Output Current	SLD-DIM1X: 5A max. at full load **
Power Efficiency	97% Typ	Dimming Ratio	1:10,000

** - SLD-DIM dimming module max. output current is dependent on LED driver output current , which should not exceed the Class 2 maximum of 5A.

Environmental Specification

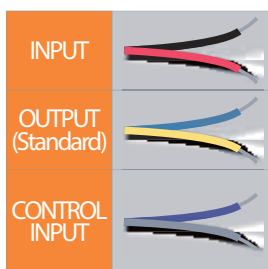
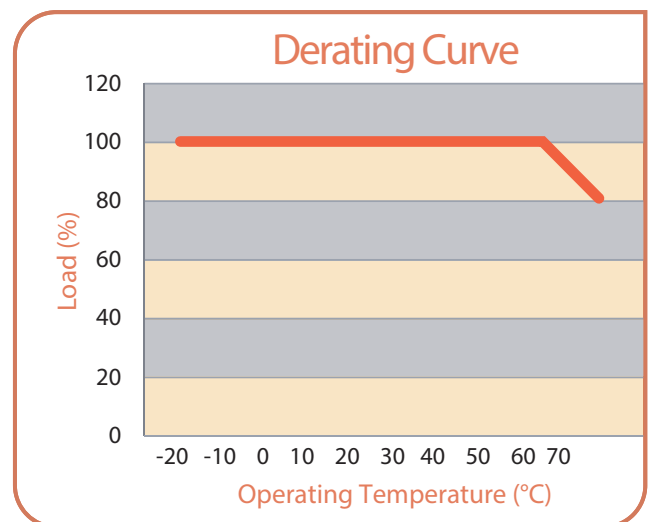
Ambient Temperature	Pollution Degree	Protection Against Electric Shock Class	Overvoltage Category	Storage Temp	Relative Humidity
- 20°C - 60°C (Full Load)	2	Class III	I	- 40°C - 85°C	5% - 95 %

Compliance / Safety

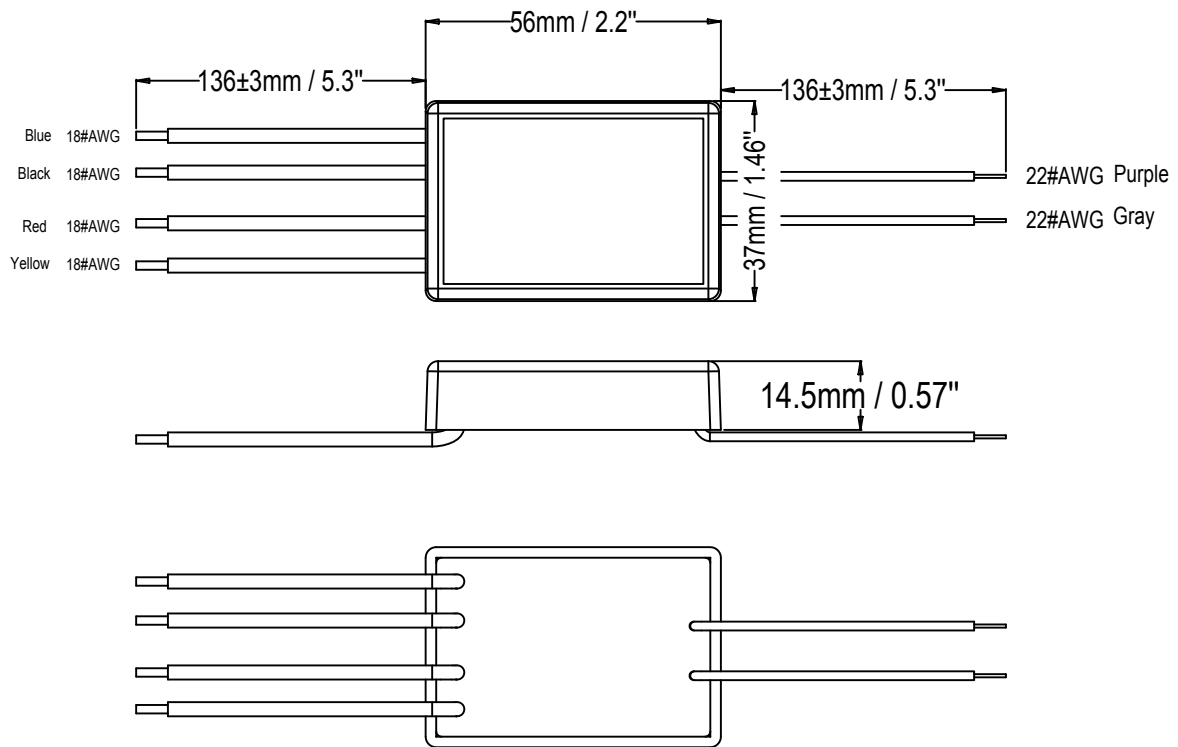
Safety Standards:	UL 60730-1, CSA E60730-1
Weatherability:	IP 65

Mechanical Specification

Power Unit Dimensions	56mm (L) x 37mm (W) x 14.5mm (H)
Case Design/Material	Polycarbonate white
Wire Length	5.3 inches / 136mm
Wire Size	a. 18AWG standard, 300V, 105deg C (DC input and Dim Output wires) b. 22AWG standard, 300V, 105deg C(1-10V control wires) Use Copper Conductors Only



Mechanical Diagram



Input Wire		Output Wire	
Red	DC + Input	Yellow	Dim Output +
Black	DC - Input	Blue	Dim Output -
Purple	to 1-10V Control +		
Gray	to 1-10V Control -		

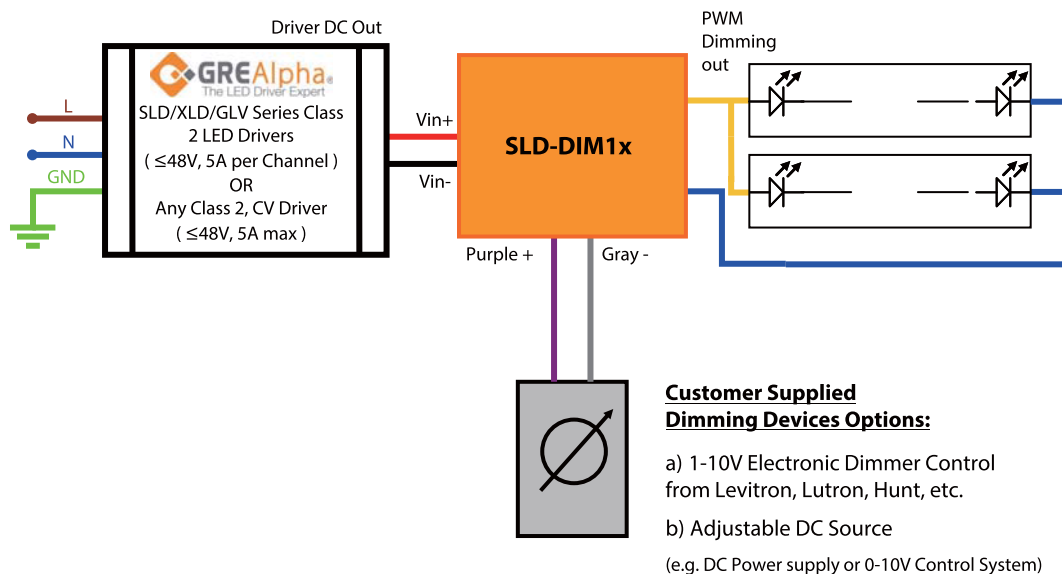
Packing Information

Weight: 55 g/pcs,

60pcs/ carton - 4.66 kg /carton; L245xW230xH185 (mm)

Wiring Diagrams

SLD-DIM1x Configuration Arrays using 1-10V dimmer or Adjustable DC Source Control Option



** Note alternate simple on-off operation:

- Connecting the Purple and Grey wires together will provide 0% brightness. -
Leave Purple and Grey wires open will provide 100% brightness.

-* 0-100% flicker-free performance not guaranteed when used with non-GRE Alpha CV Drivers

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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