



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

SLD-DIM1X

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



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

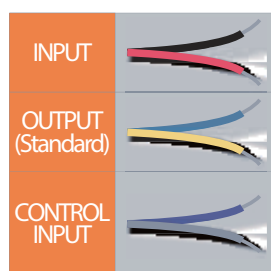
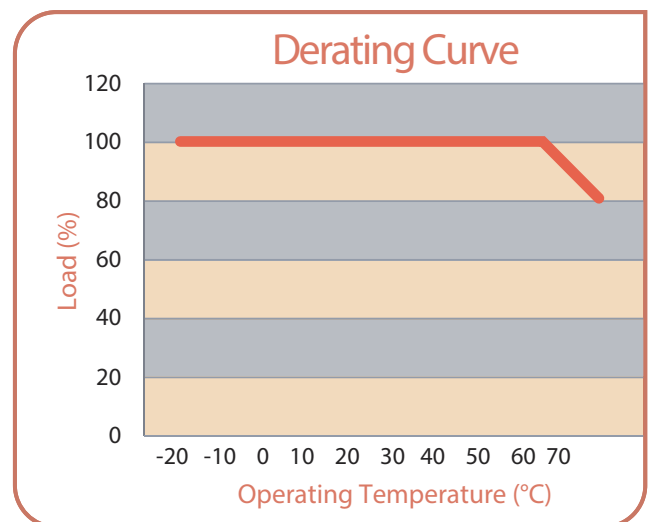
Ambient Temperature	Pollution Degree	Protection Against Electric Shock Class	Overvoltage Category	Storage Temp	Relative Humidity
- 20°C - 60°C (Full Load)	2	Class		- 40°C - 85°C	5% - 95 %

Compliance / Safety

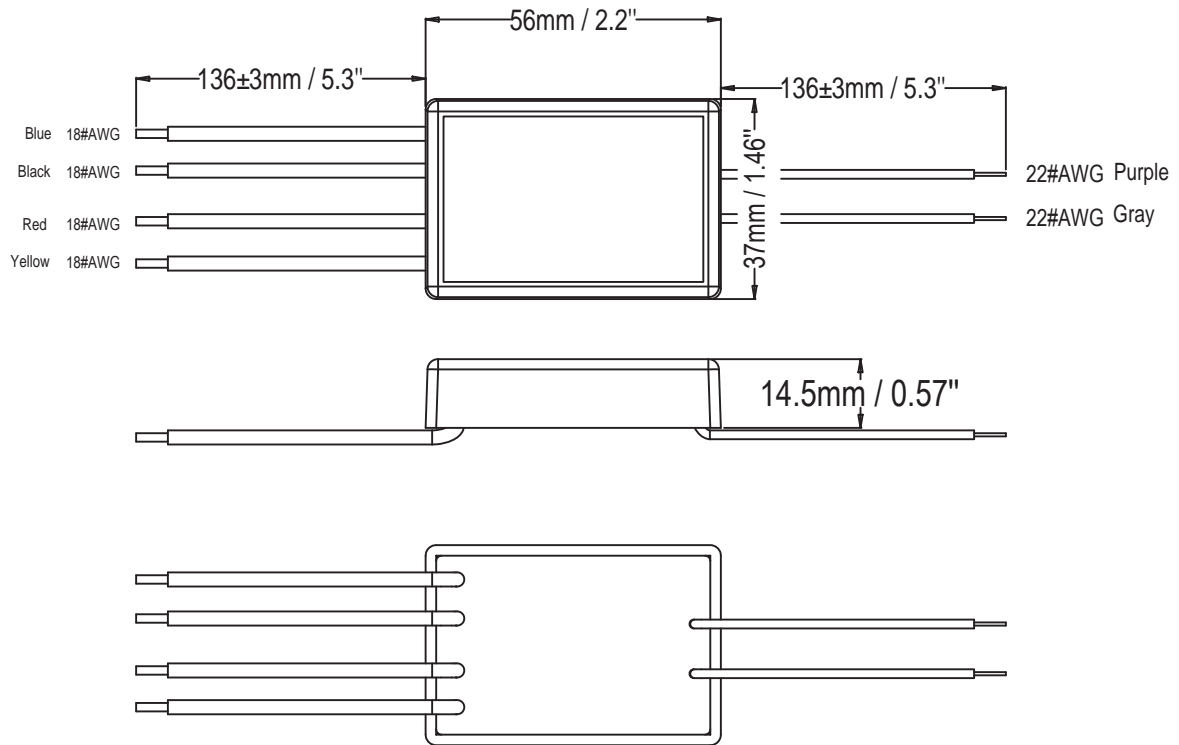
Safety Standards:	UL 60730-1, CSA E60730-1
Weatherability:	IP 65

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 -		

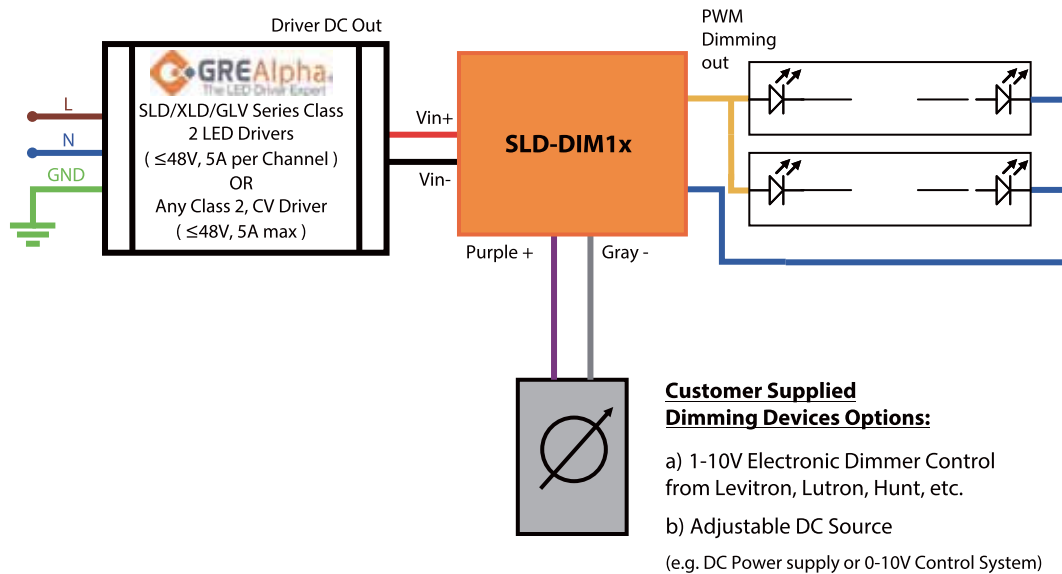
Packing Information

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

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