



Smart-Dim 120 / 150W LED Dimming Module

The SLD Smart-DIM DC dimming module is designed to provide flicker-free (PWM) pulse width modulated dimming in 1-10V dimming applications. With over 95% efficiency, this smart, power saving module offers extreme flexibility, ease of use and is compatible with commercial 1-10V dimmer controls. (1V=0% brightness, 10V=100% brightness). This accessory is ideal when combined with an AC-DC driver to enable dimming of LED fixtures. The SLD Smart-DIM's can be incorporated into an SLD/XLD series enclosure, eliminating the need for external junction boxes, for quick and easy installation.

Features

- Wide range DC input SLD-DIM1B (8-30VDC), SLD-DIM1H (15 - 48VDC)
- Flicker-free 0-100% Dimming
- High efficiency up to 95%
- High precision dimming ratio : >1:1000
- Fully isolated plastic housing
- Comply with EN55015 and FCC Part 15 without additional input filter and capacitors
- Suitable for LED lighting and signage applications
- Compact size, high reliability
- 3 year warranty

Applications

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

SLD-DIM

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-DIM1B	8 - 30V	Vin - 0.2V~0.5V	5	120	97%
SLD-DIM1H	15 - 48V		3	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 marking: for products manufactured in Vietnam only, effective October 2020.

Input Specification

Voltage Range	Please refer model table	Input Current	5.1A max(1B) / 3.1A max(1H)
Control Voltage	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-DIM1B: 5A max. at full load ** SLD-DIM1H: 3A max. at full load **
Power Efficiency	97% Typ	Dimming Ratio	1:1000

** - SLD-DIM dimming module max. output current is dependent on LED driver output current , which should not exceed the Class 2 maximum of 5A(SLD DIM1B) or 3A(SLD DIM 1H).

Environmental Specification

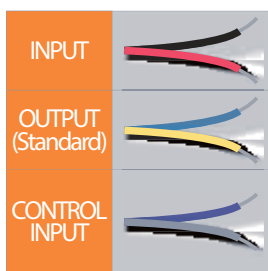
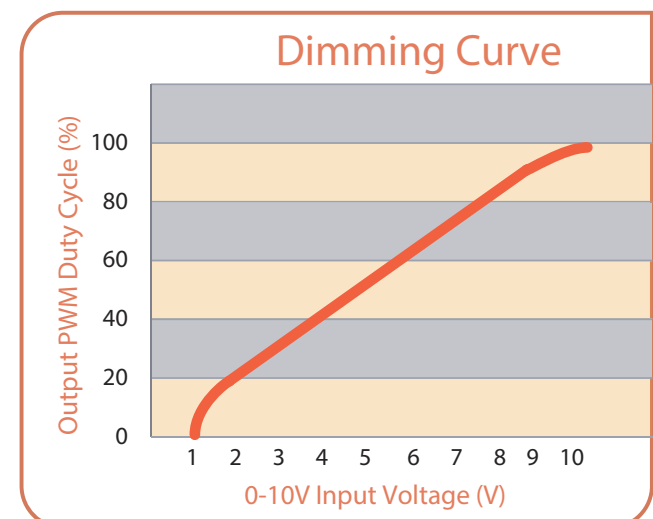
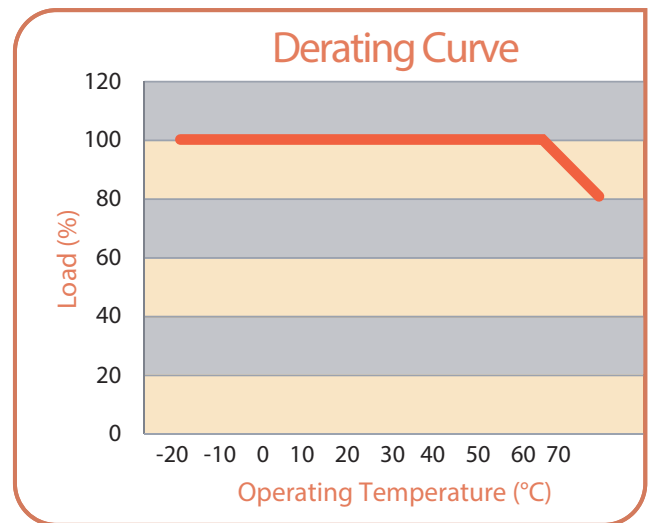
Ambient Temperature	Storage Temp	Relative Humidity
- 20°C - 60°C (Full Load)	- 40°C - 85°C	5% - 95 %

Compliance / Safety

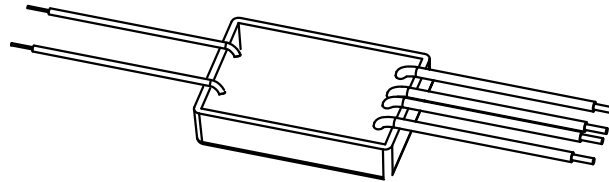
Safety Standards:	UL244A
Weatherability:	IP 65

Mechanical Specification

Power Unit Dimensions	56mm (L) x 37mm (W) x 14.5mm (H)
Case Design/Material	Plastic Casing
Wire Length	6 inches 152.4mm
Wire Size	a. 18AWG standard, 300V, 105deg C (DC input and Dim Output wires) b. 22AWG standard, 300V, 105deg C(1-10V control wires)



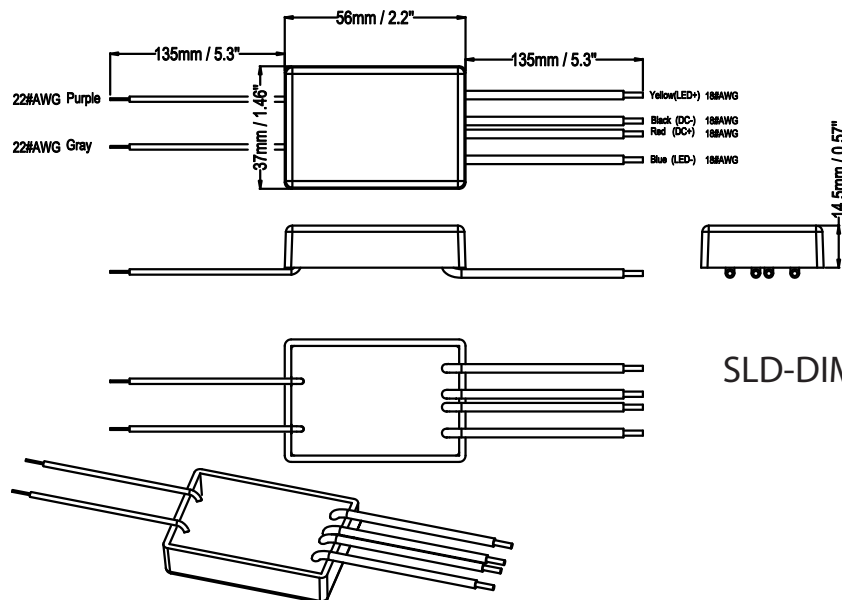
Mechanical Diagram



Power Unit Dimensions: 56mm(L)*37mm(W)*14.5mm(H)

Wire Size: a. 18AWG standard, 300V, 105degC (DC input and Dim Output wires)

b. 22AWG standard, 300V, 105degC (1-10V control wire)



SLD-DIM1B (Rev B)

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		

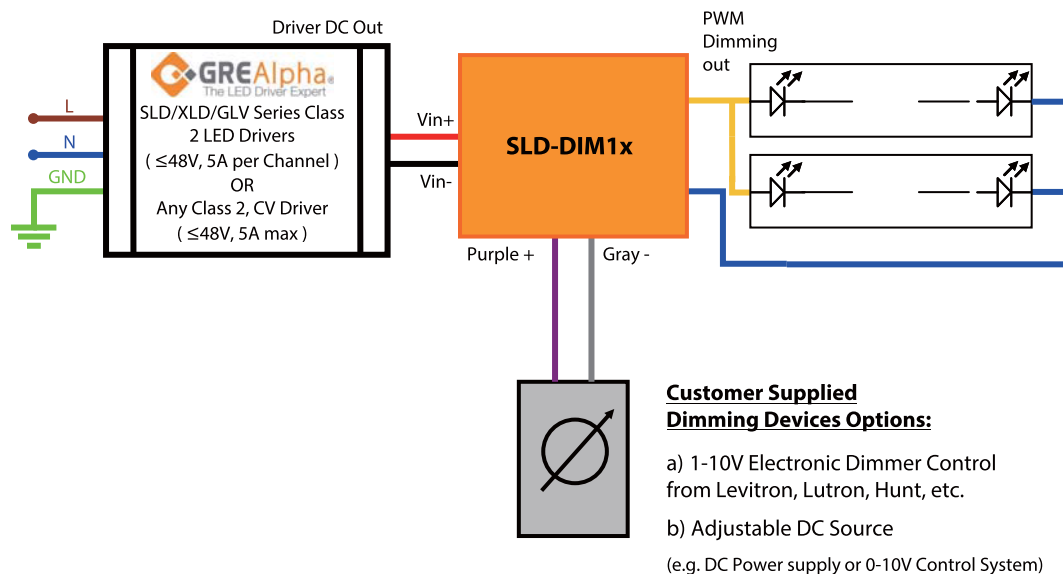
Packing Information

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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