
# SLD-DimTW

## DC/DC (0/1-10V + PWM) LED Dimming Module

GREAlpha
LED Power Specialists

## Dim - to - Warm

GRE Alpha's Dim-to-Warm dimming modules features smooth flicker free color transitions for retail, hospitality, and healthcare applications. Simple and easy to use, GRE Alpha's dim-to-warm module can be loaded up to 240 Watts for constant voltage applications. Designed to mimic color transitions of incandescent lamps, GRE Alpha's dim-to-warm module receives a single lighting control signal such as 0-10V and connects to dim-to-warm lighting strips to enable warm dimming transitions.

## Features

- Wide range DC input 8 - 48 VDC
- Flicker-free 0-100% Dimming
- High Efficiency up to 97%
- 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

| Model | Input Voltage Range | Input Control | Channel Output | Output Voltage Range * | Max. Output Current (A) ** | Max Output Power (W) | Power Efficiency (Typ) |
|---|---|---|---|---|---|---|---|
| SLD-DimTW | 8 - 48 V | 1 | 2 | Vin - 0.2~0.5V | 5 | 240 | 97% |

*- SLD-DimTW 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 (per channel) |
| Control Voltage | 0/1-10VDC Dimmer<br>*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 mininum sink current of 2mA is recommended for a single module | Control Range | 0-100%v<br>~1V = 0% light output<br>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 | 5A 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 or 100W per output channel.

## Environmental Specification

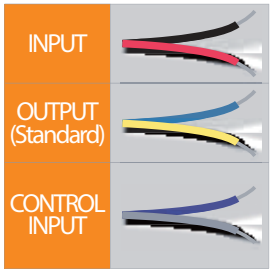
| Ambient Temperature | Storage Temp | Relative Humidity |
|---|---|---|
| - 20°C - 60°C (Full Load) | - 40°C - 85°C | 5% - 95 % |

## Compliance / Safety

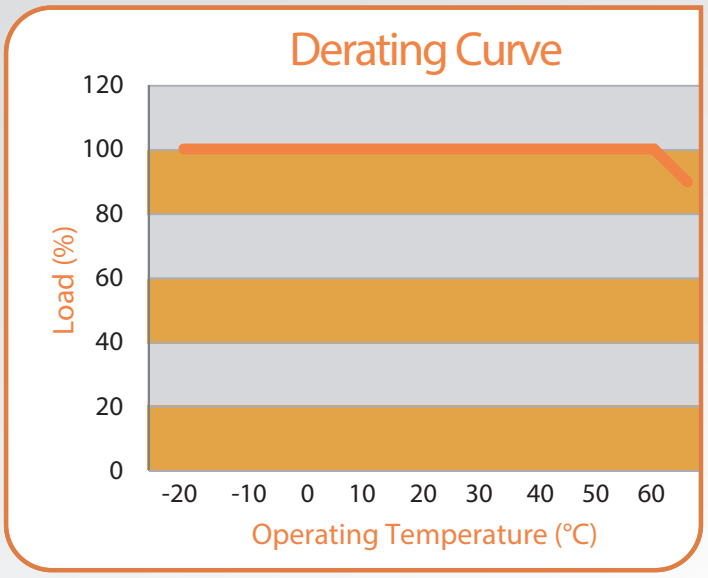
| | |
|---|---|
| Safety Standards: | UL244A |
| Weatherability: | IP 65 |

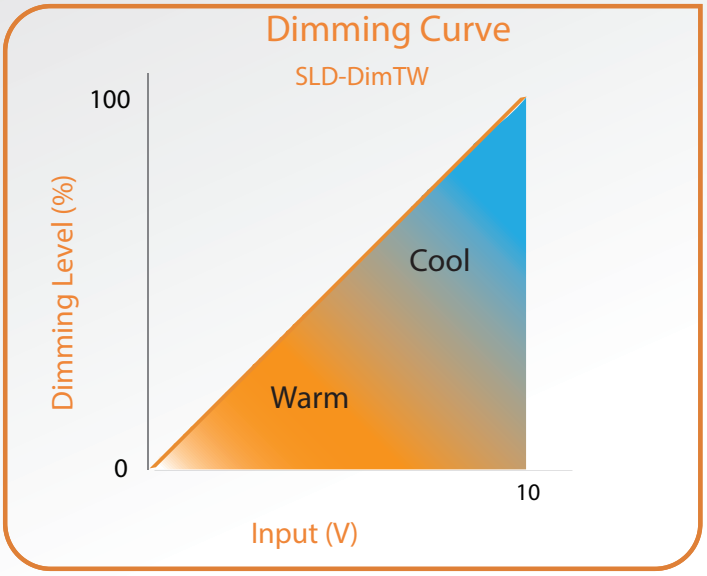
## Mechanical Specification

| | |
|---|---|
| Power Unit Dimensions | 98mm (L) x 44mm (W) x 14.5mm (H) |
| Case Design/Material | Polycarbonate White |
| Wire Length | 6 inches 152.4mm |
| Wire Size | a. 18AWG standard, 300V, 105deg C (DC input and Dim Output wires)<br>b.22AWG standard, 300V, 105deg C(0/1-10V control wires) |



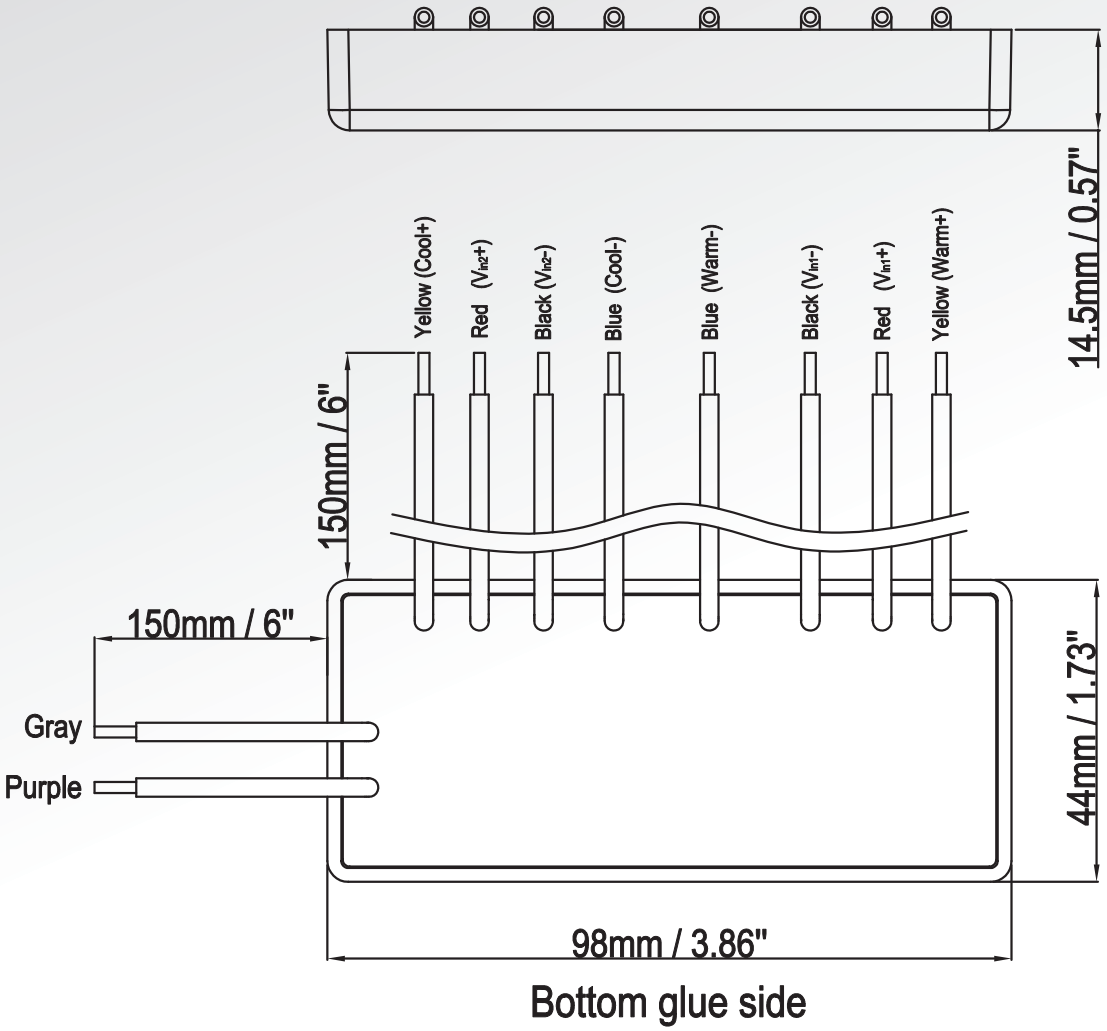
# Performance Curve



## Mechanical Diagram

### SLD-DimTW(Ver. B)




| Input Wire | |
|---|---|
| Black | Vin1 - |
| Red | Vin1 + |
| Red | Vin2 + |
| Black | Vin2 - |

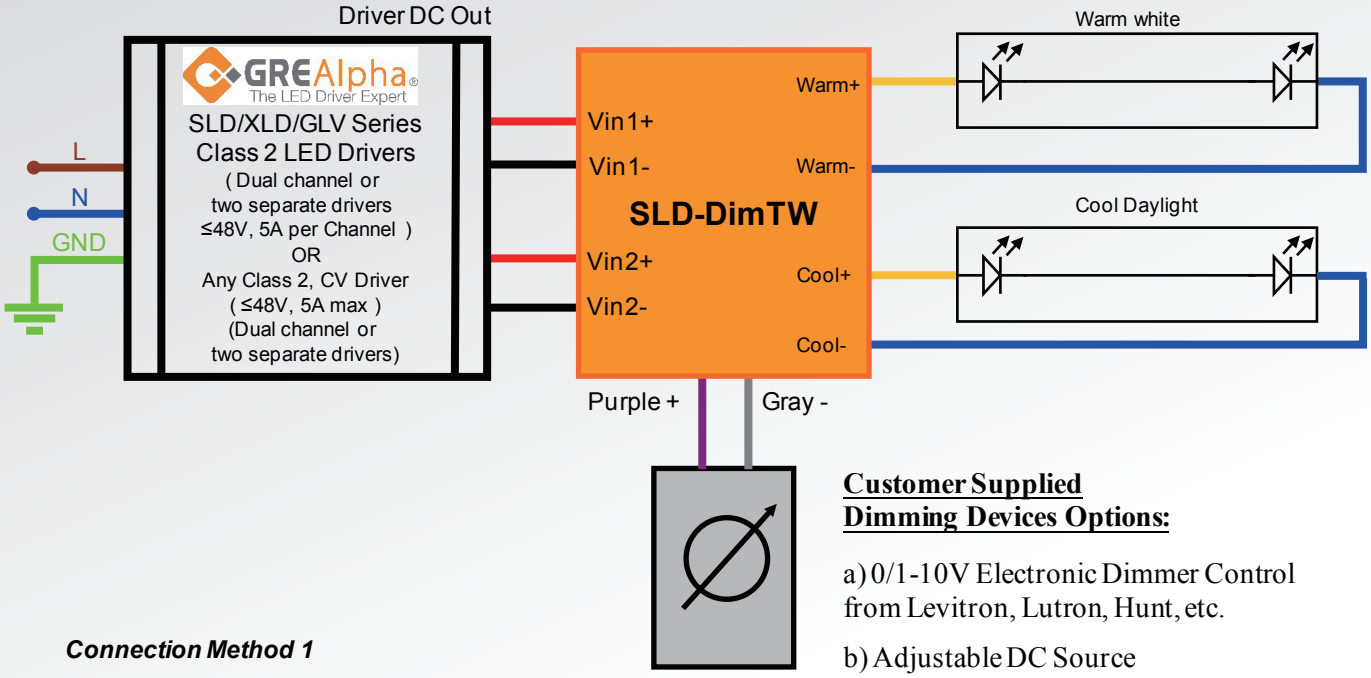
| Output Wire | |
|---|---|
| Yellow | Warm + |
| Yellow | Cool + |
| Blue | Warm - |
| Blue | Cool - |

| Control Wire | |
|---|---|
| Purple | to 0/1-10V Control |
| Gray | to 0/1-10V Control |

Packing Information
0.096 kg/pcs, 100pcs/carton;
11.6 kg /carton; L270xW220xH430 (mm)

# Wiring Diagrams

SLD-DimTW




***Connection Method 1***

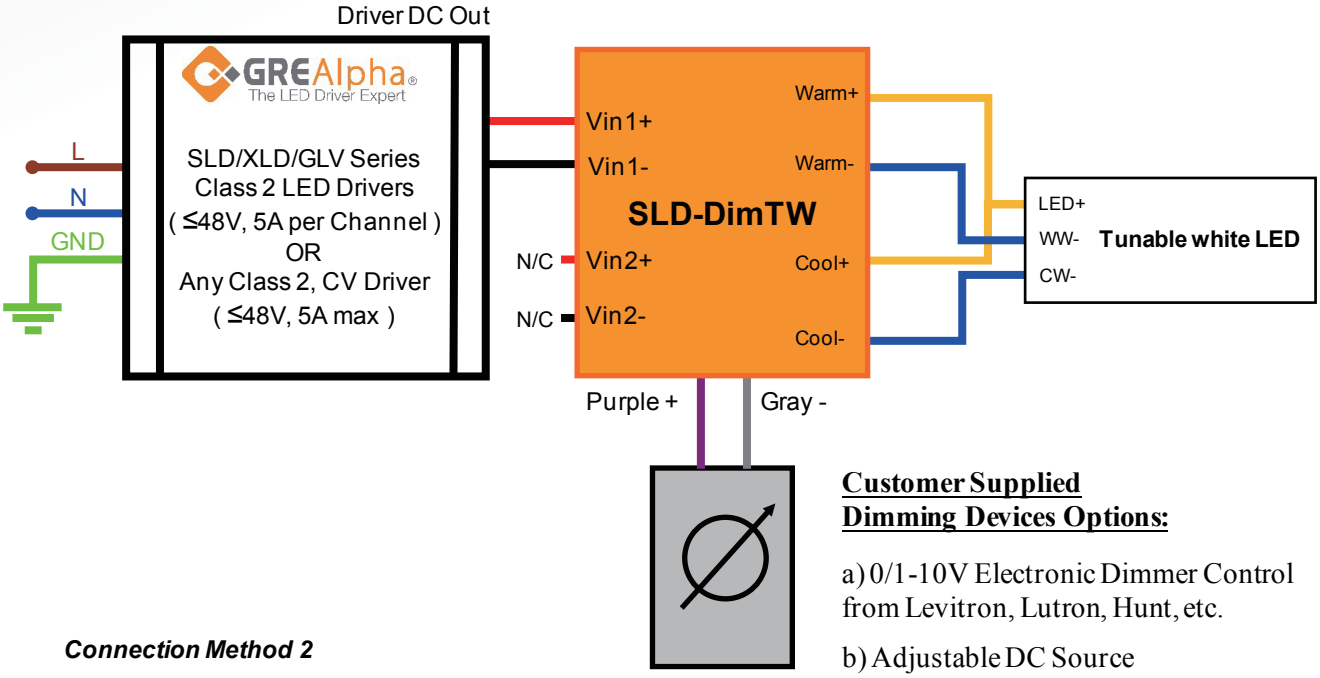
**Customer Supplied Dimming Devices Options:**

a) 0/1-10V Electronic Dimmer Control from Levitron, Lutron, Hunt, etc.

b) Adjustable DC Source

(e.g. DC Power supply or 0-10V Control System)

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




***Connection Method 2***

**Customer Supplied Dimming Devices Options:**

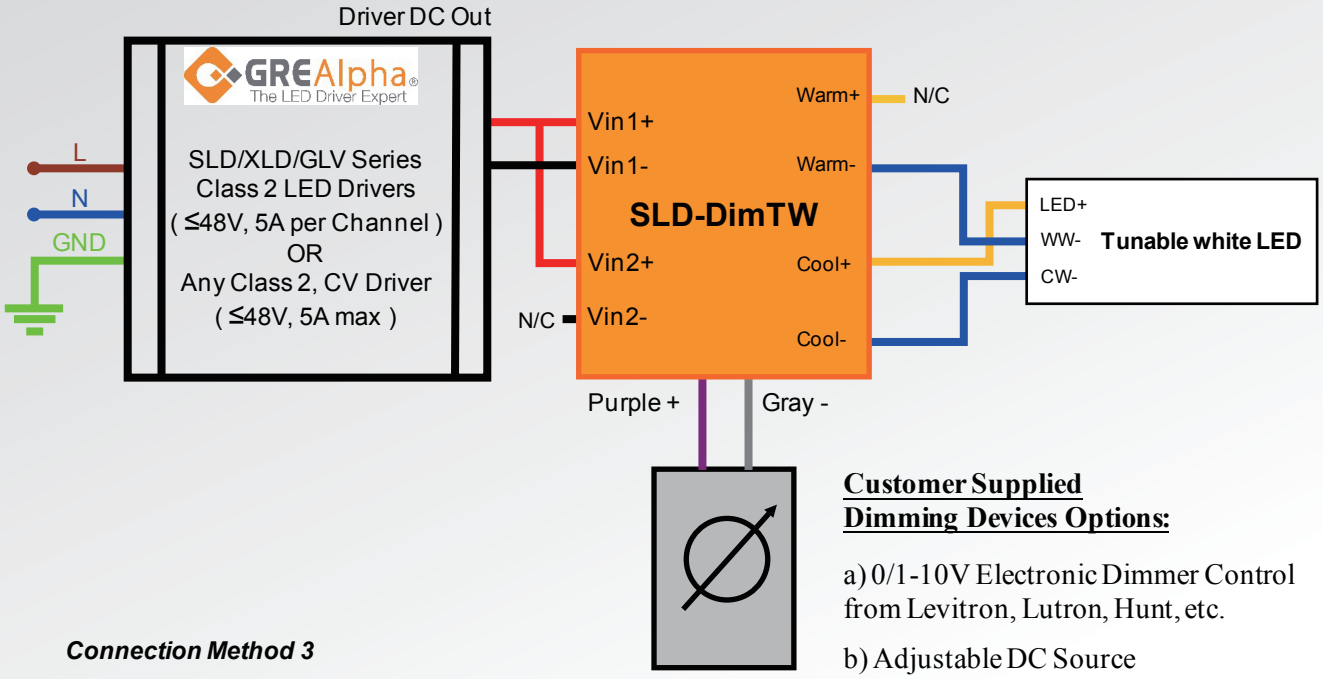
a) 0/1-10V Electronic Dimmer Control from Levitron, Lutron, Hunt, etc.

b) Adjustable DC Source

(e.g. DC Power supply or 0-10V Control System)

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

# Wiring Diagrams




***Connection Method 3***

**Customer Supplied Dimming Devices Options:**

a) 0/1-10V Electronic Dimmer Control from Levitron, Lutron, Hunt, etc.

b) Adjustable DC Source

(e.g. DC Power supply or 0-10V Control System)

* 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.