

Two-Channel Universal LED Drivers with Manual and Analog-Input Controls

Part Numbers: SLA-0100-2, SLA-1000-2 and SLA-1200-2

FEATURES

- Dual Control Modes:
manual or analog-input
- Universal: suitable for any LED
- Tiered maximum output current settings to prevent overdrive
- Capable of driving variable loads

APPLICATIONS

- Microscopy
- Lighting
- Machine Vision
- Display
- Semiconductor equipment
- Testing instruments
- Medical instruments

PRODUCT DESCRIPTION

Mightex's SLA-series two-channel universal LED drivers are designed to drive a broad range of LED light sources. These LED drivers have two operational modes:

Manual Knob Control Mode: the current output of each channel can be adjusted manually

Analog Input Control Mode: the current output of each channel can be controlled via 0 ~ 5V analog input.



The control mode is set via a DIP switch, and the factory default setting is "Manual Knob Control Mode". The drivers also have a Maximum Current Setting DIP Switch, which allows user to set the maximum current to different levels, in order to prevent LED damage due to overdriving. The factory default setting is 30mA for SLA-0100-2, and 350mA for both SLA-1000-2 and SLA-1200-2. When the Maximum Current Setting DIP Switch is set at a smaller value (e.g. 350mA), the LED driver has a finer resolution for the output current.

When the driver is set to "Analog Input Control Mode", the output current is proportional to the voltage of the analog input signal. The operational mode and the current limit of each channel can be set independently from each other.

ELECTRICAL SPECIFICATIONS

Parameters	SLA-0100-2	SLA-1000-2	SLA-1200-2	Unit
Number of Channels	2	2	2	
Power Supply Input Voltage (V_{dc})	9 ~ 24	9 ~ 24	9 ~ 24	V
Maximum Output Voltage (V_{max}) ¹	< 21	< 21	< 21	V
Maximum Per Channel Output Current (I_{max}) ²	100	1,000	1,200	mA
Maximum Per Channel Output Power (P_{max}) ³	2	10	10	W
Max Modulation Frequency	50	1	1	KHz
Tiered Max. Current Settings	30, 50 and 100	350, 500 and 1,000	350, 750 and 1,200	mA

1. Maximum Output Voltage is 3V less than the Power Supply Input Voltage, i.e. $V_{max} = V_{dc} - 3V$. For instance, with a Power Supply Input Voltage of $V_{dc} = 24V$, the Maximum Output Voltage V_{max} would be $(V_{dc} - 3V) = 21V$; and

2. If the channel output voltage is V_d and the output current is I_d , they must simultaneously satisfy: (1) $V_d \leq V_{max}$; (2) $I_d \leq I_{max}$; and (3) $V_d * I_d \leq P_{max}$.

3. With both switches flipped on top, I_{max} is 1200mA for SLA-1200-2, 1000mA for SLA-1000-2 and 100mA for SLA-0100-2. With both switches flipped bottom, I_{max} is 30mA for SLA-0100-2, and 350mA for both SLA-1200-2 and SLA-1000-2. With one switch flipped on top and the other at bottom I_{max} is 50mA for SLA-0100-2, 500mA for SLA-1000-2 and 750mA for SLA-1200-2.

CHANNEL I/O PIN DEFINITION

Each channel has four pins defined as below:

Pin Label	LED+	LED-	Analog Signal	Analog Input GND
Description	LED Anode	LED Cathode	0~5V Analog Input	Analog Input Ground

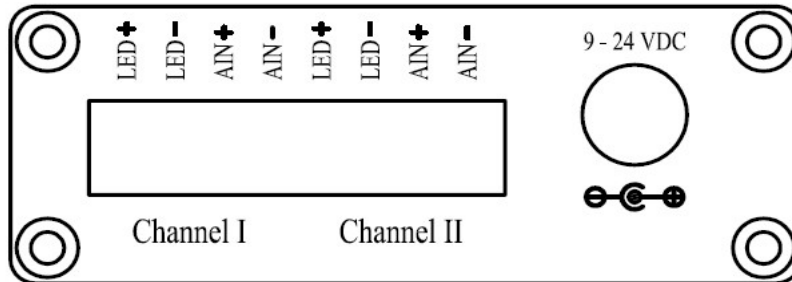
MECHANICAL SPECIFICATION

Dimension	80mm (L) x 64.3mm (W) x 23.7mm (H)
Weight	60g

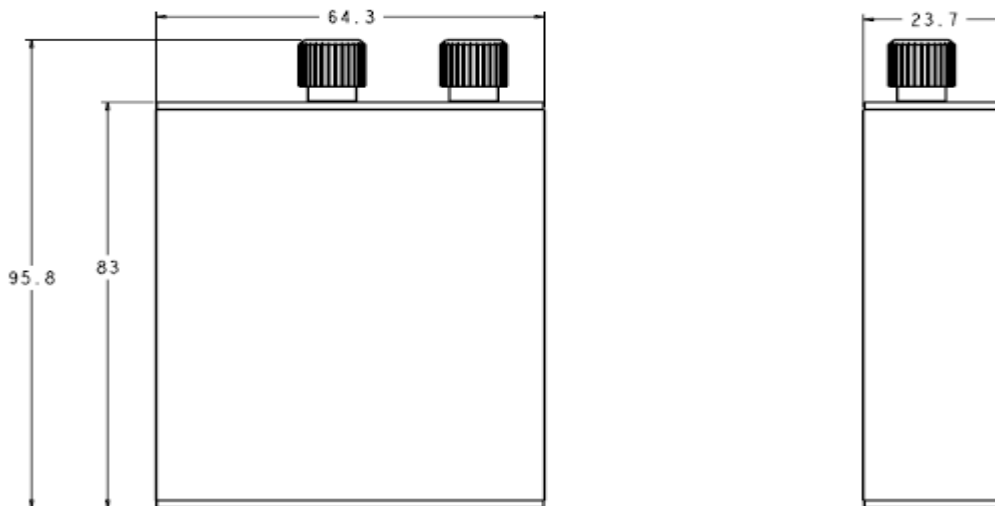
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ELECTRICAL PIN LAYOUT



INSTALLATION DRAWING



With a world-class OEM design team, Mightex offers a broad range of customized solutions in order to meet individual customer's unique requirements. Please call 1-416-840-4991 or email sales@mightex.com for details.