1- and 2- Channel Universal LED Drivers with Manual and Analog-Input Controls

(Part Numbers: SLA-0350-1, SLA-0750-1, SLA-1200-1, SLA-0350-2, SLA-0750-2, and SLA-1200-2)

PRODUCT DESCRIPTION

FEATURES

- ◆ Dual control modes: manual or analog-input
- ◆ Universal - suitable for any LED
- ◆ Tiered maximum output current settings (i.e. 350, 750 and 1200mA) to prevent overdrive
- ◆ Capable of driving variable loads

APPLICATIONS

- ◆ Microscopy
- ◆ Lighting
- ◆ Machine vision
- ◆ Displays
- ◆ Semiconductor equipment
- ◆ Test instruments
- ◆ Medical instruments

Mightex's SLA-series 1- and 2- 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; and
- **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 350mA, 750mA or 1200mA, whichever applicable. The factory default setting is 350mA. 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.

(Photo: SLA series, 2-channel)

When the driver is set to "Analog Input Control Mode", the output current is proportional to the voltage of the analog input signal. For the 2-channel models, the operational mode and the current limit of each channel can be set independently from each other.

ELECTRICAL SPECIFICATION:

Parameters	SLA-0350-x	SLA-0750-x	SLA-1200-x	Unit
Number of Channels	x (x=1 or 2)	x (x=1 or 2)	x (x=1 or 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]	350	750	1200	mA
Maximum Per Channel Output Power (P_{max}) [3]	10	10	10	W

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;

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

3. Each period of a PWM square wave comprises of ON time and OFF time, i.e. two (2) 'steps'. The minimum value for each step is 1000μs, and the minimum increment is 100μs.

CHANNEL I/O PIN DEFINITION

Each channel has four pins, defined as follows:

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	60 g

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