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Instrument Expert
Original factory packaging
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BioLED Drivers with Manual and Trigger Mode Input Controls

Part Numbers: BLS-1000-2, BLS-3000-2, BLS-13000-1/1E, BLS-18000-1

FEATURES

- Dual Control Modes: manual or trigger-input
- High Frequency response
- Capable of driving variable loads
- BNC connectors

APPLICATIONS

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

BLS-1000-2/BLS-3000-2 (Front Panel)

BLS-1000-2, BLS-3000-2 (Rear Panel)

BLS-13000-1/1E, BLS-18000-1 (Front Panel)

BLS-13000-1/1E, BLS-18000-1 (Rear Panel)

PRODUCT DESCRIPTION

Mightex BLS-1000-2, BLS-3000-2, BLS-13000-1/1E, and BLS-18000-1 LED Controllers have two operation modes to control an LED:

Manual Mode: User can control the output current by a turn-counting knob manually.
Trigger Mode: Analog input signal to fully control the output current.

The control mode is selected with a slide switch on the front panel, the factory default is "**Manual**" mode. BLS-1000-2 and BLS-3000-2 provide Maximum Current Selection DIP switches on rear panel which allow the user to set maximum output current of the channel to 500 / 750 / 1,000mA for BLS-1000-2, and 1,000 / 2,000 / 3,000mA for BLS-3000-2. The factory default is set to 500mA for BLS-1000-2 and 1,000mA for BLS-3000-2. BLS-13000-1/1E and BLS-18000-1 has only one maximum current setting of 13,000mA and 18,000mA, respectively.

When the controller is set to "**Trigger**" mode, the output current is fully controlled by the input analog signal (0-5V).

ELECTRICAL SPECIFICATIONS

Parameters	Value					Unit
	BLS-1000-2	BLS-3000-2	BLS-13000-1	BLS-13000-1E	BLS-18000-1	
DC Input Voltage	9 ~ 12*	9	48	12	12	V_{dc}
DC Input Current	> total/combined channel currents**		< 2.5	13.75	13.75	A
Channel Driving Voltage (Max)	V_{dc} - 4.5	V_{dc} - 4	5.5	7.5	7.5	V
Current Accuracy	$\pm 3\%$					mA
Channel Driving Current	0 ~ 1,000	0 ~ 3,000	0 ~ 13,000	0 ~ 13,000	0 ~ 18,000	mA
Channel Output Power Limit	< 20	< 15	< 72	< 95	< 135	W
Channel Frequency Response	< 100	< 50	< 3	< 3	< 3	kHz
External Analog Input	0 ~ 5***					V

*. When $V_{forward}$ of LED load is more than 8V, 24V DC input might be used.

**.The Input current should be more than the sum of output currents of two channels.

***. The input current should be greater than the combined output current of the two channels.

FRONT PANEL AND REAR PANEL(BLS-1000-2, BLS-3000-2):
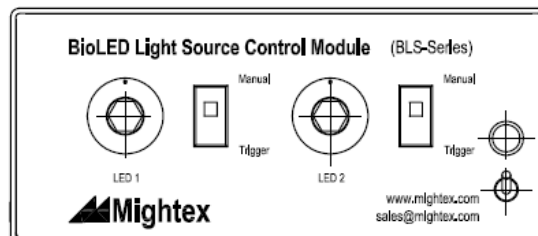
The Front Panel has power switch and power indicator. For each channel, it has a slide switch (for selecting Manual or Trigger mode) and a turn-counting dial (for adjusting output current).
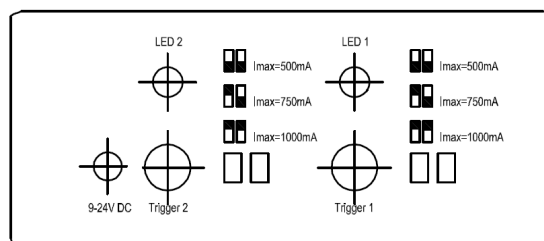

The Rear Panel has a DC input plug (9 ~ 24V DC). For each channel, it has a BNC connector for external trigger/analog voltage signal (0-5V), a two-pin LED aero connector, and a pair of DIP switches to set the maximum current of the channel.

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www.mightex.com or www.mightexsystems.com

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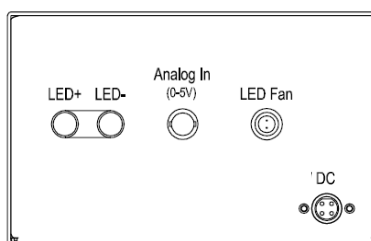# BioLED Drivers with Manual and Trigger Mode Input Controls
Part Numbers: BLS-1000-2, BLS-3000-2, BLS-13000-1/1E, BLS-18000-1

FRONT PANEL AND REAR PANEL (BLS-13000-1/1E, BLS-18000-1):
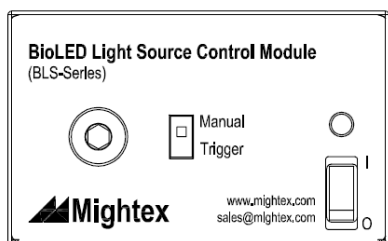
Front Panel

Rear Panel

Front Panel has power switch and power indicator. It also has a slide switch (for selecting Manual or Trigger mode) and a turn-counting dial (for adjusting output current).

The Rear panel has a DC (12V or 48V) input plug, and it also has a BNC connector for analog input (0-5V), a two pin LED Fan aero connector to drive the fan of the LED light source, and a pair of LED+/LED- to drive the LED light source.
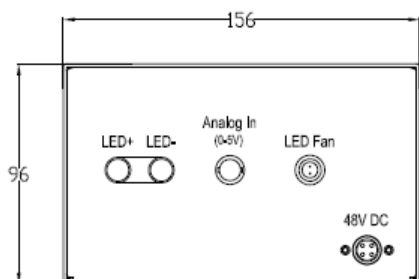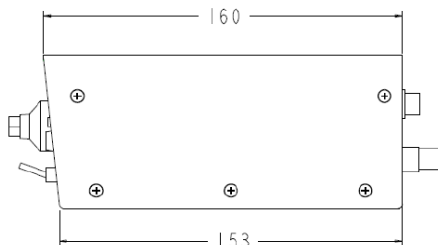
MECHANICAL SPECIFICATION

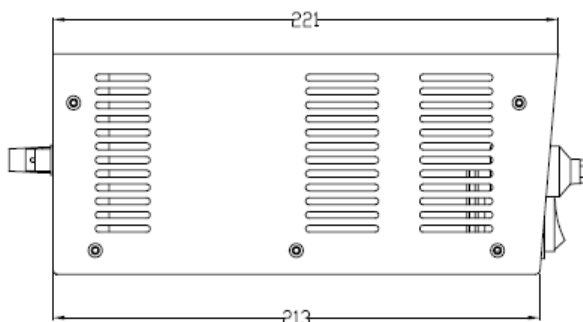|	BLS-1000-2, BLS-3000-2	BLS-13000-1/1E, BLS-18000-1
Dimension	160mm (L) x 157mm (W) x 68mm (H)	221mm(L) x 156mm (W) x 96mm (H)
Weight	600g	1300g

INSTALATION DRAWING
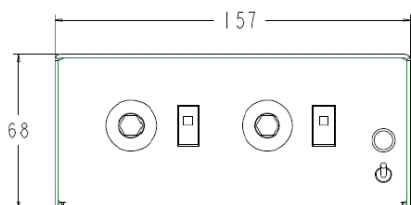
BLS-1000-2, BLS-3000-2

BLS-13000-1/1E, BLS-18000-1

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.

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