

5000B Multi-channel Solid State Source Driver/Controller



Innovations in Optics offers the 5000B Solid-State Source Driver/Controller with Ethernet and serial connectivity to independently drive, control and modulate as many as 20 different solid-state sources, including combinations of LEDs and LDs and even IR VCSEL arrays.

Powered from a universal VAC input, the 5000B Solid-State Source Driver/Controller provides precise output control of solid-state sources on each channel, up to 20 channels in total. Its ground based design can be configured for common anode, common cathode or combinations to work with all types of P-Up and P-Down LED or LD devices.

The 5000B provides constant current control up to 4A per source channel to achieve optimal performance. Pulse widths on the order of 1 μsec are achievable with short lead lengths. Any given number of like channels can be paralleled together, making this a flexible source capable of delivering between 4A to 80A drive current to a single solid-state source. The output parameters for each source channel are set through USB or Ethernet using a simple command set. Output is initiated over an external trigger BNC.

Features:

- 20 Constant current outputs
- Ground based outputs for use with COB/MCB technology
- Independent current control per channel
- Independent PWM dimming per channel
- Universal AC input
- Thermistor & photosensor inputs
- External trigger BNC
- USB and Ethernet connectivity

Options:

- Three anode/cathode output combinations
- Rack mounting hardware kit

Applications:

- Industrial machine vision
- CCTV security systems
- License plate recognition (LPR) systems

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5000B SERIES 20 CHANNEL DRIVER/CONTROLLER
SPECIFICATIONS

Parameter	Specification	Comment
Type	Constant current, dimmable	20 channels
Output current	0.0 - 4.0 Amps	Per channel
Output voltage	5.5 Volts	Max per channel
Input voltage	100 – 264 VAC 47 – 63 HZ 120 – 370VDC	Universal AC input /full range
Current ripple	2% RMS maximum	At maximum voltage (5.5V DC)
Operating modes	Continuous mode (CM) or pulsed mode	User selectable
Internal PWM dimming	5 - 100% @ 15 kHz	Per channel
BNC trigger input	Instantaneous or programmable delay	User enabled
Rise time*	<2 μsec	PWM and trigger
Fall time*	<1 μsec	PWM and trigger
LED module I/O	Thermistor, photosensor	Monitoring
Pulse repetition rate	30 kHz	Maximum
Pulse width	1 μsec	Minimum
Connectivity	USB 2.0 10/100 Mbps ethernet	Standard-A type RJ-45
Programming	Command set for serial (USB) and telnet (Ethernet) communication	
Fan output supply	+24VDC	2-pin positive latch Molex SL
Size and weight	430 X 203 X 93 (mm, L x W x H), ~6 kg 430 X 203 X 86 (mm, L x W x H), ~6 kg	
Rack mounting	2U half-rack	Optional kit

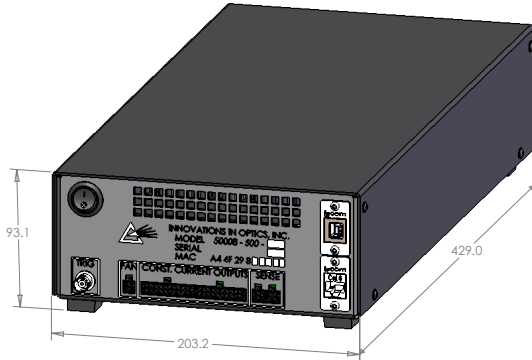
* Tested with 5cm total lead length



Standard Configurations*	Description
5000B-X00-001	20 common anode outputs
5000B-X00-002	20 common cathode outputs
5000B-X00-003	10 common anode and 10 common cathode outputs
* Part numbers are for reference only	

INSTALLATION CONTROL DRAWING

REVISIONS			
REV	DESCRIPTION	DATE	ECO
1	PRERELEASE	5/27/2016	MC



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- NOTES:
 1. CONTENT FOR REFERENCE ONLY AND SUBJECT TO CHANGE
 2. REFER TO ADDITIONAL DOCUMENTATION

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS		DRW	MC	DATE	5/27/2016
TOLERANCES:		ENG	MC	DATE	5/27/2016
1 PLACE DECIMAL: ±0.2		ENG APVD	TB	DATE	5/27/2016
2 PLACE DECIMALS: ±0.10					
3 PLACE DECIMALS: ±0.050					
ANGLE: ±1°					
MATERIAL:		FINISH:			

INSTALLATION CONTROL DRAWING



INNOVATIONS IN OPTICS, INC. 82 Cummings Park Woburn, MA 01801 TEL: (781) 933-4477 FAX: (781) 933-0007	
TITLE LED DRIVER 20-CHN	
SIZE B DWG. NO. 5000B-500_ICD SCALE: 1:2	REV 1 SHEET 1 of 1

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