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BLD-CW-2000(H)-ZIF LASER DRIVER

APPLICATIONS

PUMP LASER

SEED LASER

SPECTROSCOPY

FREQUENCY CONVERSION



KEY FEATURES

- Special design for 10/14 pin butterfly laser diode
- High precision constant current mode (H-version)
- Output current up to 2000 mA
- High current stability up to 0.01 mA (H)
- Computer interface RS232/USB/CAN/UART
- LabVIEW compatible
- Programmable
- Single GUI control for multiple drivers
- On-board TEC controller
- Regulated maximum TEC current
- High precision temperature stability up to 0.01 °C (H)
- 5 VDC input power
- Integrated heatsink
- Compact size 85 mm x 80 mm x 24 mm

SPECIFICATIONS

PARAMETER	MIN	TYP.	MAX	UNITS
INPUT				
Voltage	4,8	5	5,2	VDC
Current	-	-	3	A
OUTPUT				
Current	-	-	2000	mA
Current regulation step	-	1/(0,01)	-	mA
Current ripple	-	-	0,1	%
Current stability	-	-	0,1	%
Current set accuracy	-	-	1	%
Compliance voltage	1	-	3	V
TEC current	-4	-	4	A
TEC voltage	1	-	4	V
TEC temperature set	5	25	50	°C
TEC temperature step	-	0,1/(0,01)	-	°C
TEC temperature accuracy	-	-	0,1	%
TEMPERATURE				
Operating	+10	-	+50	°C
Storage	-20	-	+70	°C
Humidity, non-condensing	-	-	95	%
CONNECTIONS				
Power	2-pin terminal block (282836-2 TE connectivity)			
Interface connectors	Mini-USB, Type B (1734035-1 TE connectivity), CAN, RS232, UART (282834-8 TE connectivity)			
MECHANICAL				
PCB size	85 mm x 80 mm x 24 mm			
Weight	< 160 g			

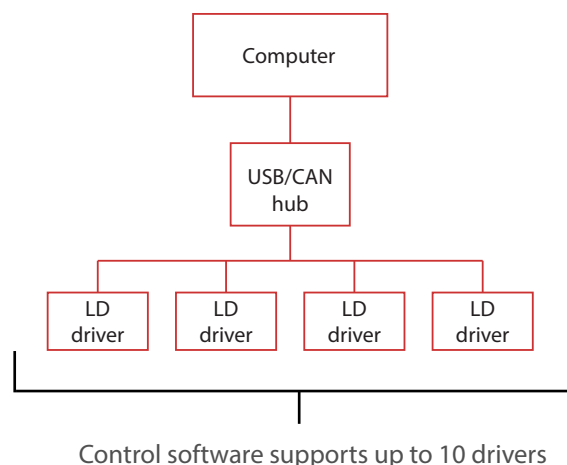
DESCRIPTION

The BLD-CW-2000(H)-ZIF is a constant current laser diode driver for powering 10/14-pin butterfly laser diode modules for applications, which require precision low ripple constant current regulation.

The driver circuitry operates from a single 5 VDC power source. The driver supplies a bidirectional proportional-integral-derivative (PID) thermoelectric cooler controller (TEC) with current capability of 4 A and voltage capability of 4 V.

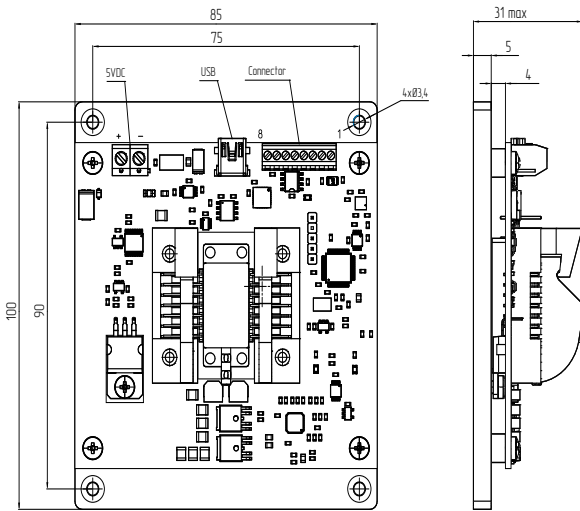
The main parameters of BLD-CW-2000(H)-ZIF (output current, temperature set, monitor photodiode signal) are controlled by computer interface. The GUI can control multiple drivers connected by CAN/USB hub.

Driver has landing pads for soldering a butterfly laser diode directly into driver board and large heat sink for stable heat dissipation.



PERFORMANCE, DIMENSIONS

DIMENSIONS AND CONNECTORS



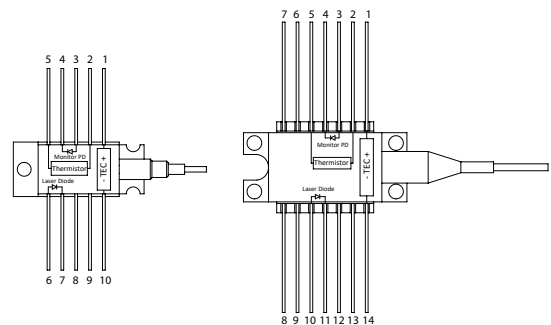
CONNECTOR PINOUT

PIN	FUNCTION
1	INTERLOCK
2	UART TX
3	UART RX
4	RS232 RX
5	RS232 TX
6	GND
7	CAN L
8	CAN H

COMPATIBLE LASER PINOUTS

PIN	FUNCTION
1	TEC (+)
2	Thermistor
3	Monitor anode (-)
4	Monitor cathode (+)
5	Thermistor
6	N/C
7	N/C
8	N/C
9	N/C
10	LD anode (+)
11	LD cathode (-)
12	N/C
13	Case ground
14	TEC (-)

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1	TEC (+)
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5	Thermistor
6	LD (+)
7	LD (-)
8	N/C
9	Case ground
10	TEC (-)



ORDERING INFORMATION

Product code:
BLD - CW - 2000(H) - ZIF

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Find out more about us at
www.ampliconyx.com

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