

7144 SERIES**MULTISOURCE**
MULTICHANNEL LASER DRIVER

The 7144 MultiSource laser diode drivers feature the same precision and protection found in our benchtop products, giving you a seamless transition from benchtop to high density. Optional analog modulation extends control outside the box, and Ethernet and USB provide easy computer connectivity options.

**OVERLAPPING LASER PROTECTION**

Including safety interlock, ESD protection, hardware limits for current & voltage, and soft power-on.

**MULTIPLE OPERATING MODES**

Choose from: ● Constant Current ● Constant Power ● Constant Voltage

**REMOTE VOLTAGE SENSING**

Supports an extra pair of sensing wires to measure the operating voltage of your laser diode or LED.

**ANALOG MODULATION**

Bandwidths up to 100 kHz.

**ETHERNET INTERFACE**

The built-in Ethernet interface allows the 7144 to be easily accessed via a network and integrated into larger system applications.

**SIMPLE USER INTERFACE**

Operational summary and individual channel information on an easy-to-read VFD display.

**ELECTRICALLY ISOLATION CHANNELS**

Each channel is fully electronically isolated and has independent set points, limits, and operating parameters.

AT-A-GLANCE

Current Ranges (per channel):

- ▶ 500mA / 8 Volt
- ▶ 1 Amp / 8 Volt
- ▶ 2 Amp / 4 Volt
- ▶ 4 Amp / 4 Volt

High Accuracy

- ▶ Up to 0.025% of reading
+ 0.025% of scale

Low Noise

- ▶ As Low as <4 μ A

Compliance Voltages

- ▶ Up to 8 Volts available
(contact factory for higher compliances)

Remote Operation via PC

- ▶ Use your existing control code.
Our command set is compatible with other manufacturers.
- ▶ USB
- ▶ Ethernet

**COMPACT
MULTI-CHANNEL**

The 7144 MultiSource Laser Driver provides 4 channels of fully independent laser control in just 1U of rack space.

And maintains the high performance of our benchtop units!

7144 MULTISOURCE LASER DRIVER SPECIFICATIONS

		7144-0.5-08	7144-01-08	7144-02-04	7144-04-04
Setpoint	Laser Current				
	Range (mA)	0 – 500	0 – 1000	0 – 2000	0 – 4000
	Resolution (mA)	0.02	0.05	0.1	0.2
	Accuracy (± [% set + mA])	0.025% + 0.12	0.025% + 0.3	0.05% + 0.4	0.05% + 0.8
	Stability (ppm, time)	< 10, 1 hour			
	Temperature Coeff (ppm/°C)	50			
	Noise/Ripple (µA rms)	< 4	< 8	< 20	< 30
	Transients (µA)	< 150	< 250	< 350	< 500
	Compliance Voltage (V)	8	8	4	4
	Photodiode Current				
	Range (µA)	2 – 5,000			
	Resolution (µA)	0.1			
	Accuracy (± [% set + µA])	0.05% + 1			
	Stability (ppm, time)	< 200, 24 hours			
	Temperature Coeff (ppm/°C)	< 200			
	PD Bias (V)	-5V (fixed)			
	Laser Voltage				
	Range (V)	0 – 8	0 – 8	0 – 4	0 – 4
	Resolution (V)	0.001			
	Accuracy (± [% set + V])	0.05% + 0.005			
	Stability (ppm, time)	< 50, 1 hour			
	Temperature Coeff (ppm/°C)	< 100			
	External Modulation				
	Input Range	0 – 10V, 10kΩ			
	Modulation Bandwidth (kHz)	100	85	75	65

Measurement	Laser Current				
	Resolution (mA)	0.02	0.05	0.1	0.2
	Accuracy (± [% reading + mA])	0.025% + 0.12	0.025% + 0.3	0.05% + 0.4	0.05% + 0.8
	Laser Voltage				
	Resolution (V)	0.001			
	Accuracy (± [% reading + V])	0.05% + 0.005			
	Photodiode Current				
Resolution (µA)	0.1				
Accuracy (± [% reading + µA])	0.05% + 1				

Limits	Laser Current	
	Resolution (mA)	1
	Accuracy (± [% of range])	1%
	Laser Voltage	
	Resolution (V)	0.1
Accuracy (± [% of range])	2.5%	

General	Laser Connector	4 x DB-9, female
	Computer Interface	USB 2.0 Full Speed (Type B), Ethernet
	Power	90 – 240 V, 50 / 60
	Size (H x W x D) [inches (mm)]	1.75 (45) x 19 (483) x 14.76 (375)
	Operating Temperature	+10°C to +40°C
	Storage Temperature	-20°C to +60°C



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