

## 7144-01-08 MultiSource Laser Controller



- 1A / 8V
- 1U Rackmountable
- Ethernet and USB
- 4 independent channels

### Overview

The 7144-01-08 MultiSource is a compact, four channel laser diode driver for lower power applications. Excellent accuracy, great long term stability, and the hardware protection features you'd expect from an Arroyo Instruments product.

### Standard Computer Interfaces

The MultiSource includes both Ethernet and USB computer interfaces, allowing for quick and easy connection to a PC for remote operation. In addition, the command set is compatible with ILX and Newport controllers, allowing you to leverage any existing software you may have already developed.

### Simple Local Control

While intended to be primarily operated from a PC, the display on the MultiSource allows you to locally monitor status and turn channels on and off.

## Specifications

<b>Number of Channels</b>	4
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### Per Channel Specifications

<b>LASER CURRENT</b>	
Range (mA)	0 – 1,000
Resolution (mA)	0.05
Accuracy ( $\pm$ [% set+mA])	0.025% + 0.3
Stability (ppm, time)	< 10, 1 hour
Temperature Coeff (ppm/°C)	50
Noise/Ripple ( $\mu$ A rms)	< 8
Transients ( $\mu$ A)	< 250
Compliance Voltage (V)	8
<b>PHOTODIODE CURRENT</b>	
Range ( $\mu$ A)	2 – 5,000
Resolution ( $\mu$ A)	0.1
Accuracy ( $\pm$ [% set+ $\mu$ A])	0.05% + 1
Stability (ppm, time)	< 200, 24 hours
Temperature Coeff (ppm/°C)	< 200
PD Bias (V)	-3V, Fixed
<b>LASER VOLTAGE</b>	
Range (V)	0 – 8
Resolution (V)	0.001
Accuracy ( $\pm$ [% set+V])	0.05% + 0.005
<b>EXTERNAL MODULATION (OPTIONAL)</b>	
Input Range (V)	0 - 10
Modulation Bandwidth (kHz)	85
<b>LIMITS/SAFETY</b>	
Current Limit Accuracy ( $\pm$ % FS)	1
Voltage Limit Accuracy ( $\pm$ % FS)	2.5%
Safety Features	Safety interlocks, adjustable hardware voltage & current limits, output shorting relays, slow turn on / off circuits.

### GENERAL

Display Type	2x20 VFD
Laser Connector	4 x DB9, female
Computer Interface	USB 2.0 Full Speed (Type B), Ethernet (RJ45)
Input Power	90-250V, 50 / 60Hz
Size (H x W x D) [inches (mm)]	1.75 (45) x 19 (483) x 14.76 (375)
Weight (lbs [kg])	9.2 [4.2]
Operating Temperature	+10°C to +40°C
Storage Temperature	-20°C to +60°C