

7144-02-04 MultiSource Laser Controller



- 2 Amp / 4 Volt
- 1U Rackmountable
- Ethernet and USB
- 4 independent channels

Overview

The 7144-02-04 MultiSource is a compact, multi-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

Number of Channels	4
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Per Channel Specifications

LASER CURRENT

Range (mA)	0 – 2,000
Resolution (mA)	0.1
Accuracy (\pm [% set+mA])	0.05% + 0.4
Stability (ppm, time)	< 10, 1 hour
Temperature Coeff (ppm/°C)	50
Noise/Ripple (uA rms)	< 20
Transients (uA)	< 350
Compliance Voltage (V)	4

PHOTODIODE CURRENT

Range (μ A)	2 – 5,000
Resolution (μ A)	0.1
Accuracy (\pm [% set+ μ A])	0.05% + 1
Stability (ppm, time)	< 200, 24 hours
Temperature Coeff (ppm/°C)	< 200
PD Bias (V)	-3V, Fixed

LASER VOLTAGE

Range (V)	0 – 4
Resolution (V)	0.001
Accuracy (\pm [% set+V])	0.05% + 0.005

EXTERNAL MODULATION (OPTIONAL)

Input Range (V)	0 - 10
Modulation Bandwidth (kHz)	75

LIMITS/SAFETY

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