

7144-04-04 MultiSource Laser Controller



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

Overview

The 7144-04-04 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

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|---------------------------|---|
| Number of Channels | 4 |
|---------------------------|---|

Per Channel Specifications

| | |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| LASER CURRENT | |
| Range (mA) | 0 – 4,000 |
| Resolution (mA) | 0.2 |
| Accuracy (\pm [% set+mA]) | 0.05% + 0.8 |
| Stability (ppm, time) | < 10, 1 hour |
| Temperature Coeff (ppm/°C) | 50 |
| Noise/Ripple (μ A rms) | < 25 |
| Transients (μ A) | < 500 |
| 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) | 65 |
| 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 |