

# Minilite™ PIV

## High Energy Nd:YAG

The Minilite PIV system is based on the Amplitude proven Q-switch Nd:YAG technology. The system is a miniaturized Surelite package providing 10's of mJ in each pulse at 532 nm.

The system offers excellent beam quality, long term stability and increased overall reliability. The ease of operation and safety features, as well as long lifetime, make the Continuum PIV system an excellent choice for your dual pulse application.



### Applications

#### Industry:

- > LCD repair
- > Resistor trimming
- > Metal Sorting
- > PIV

#### Science:

- > LIF, PLIF, LIBS
- > MALDI
- > PIV

#### Medical:

- > Sample setup
- > Dimple Tray Illumination
- > Mass spec source

### Key Features

- > Safety Interlocks to ensure correct water flow, level, and temperature
- > System entirely self-contained, no external water hook-up needed
- > A built-in TTL interface for convenient external control
- > A decoupled kinematic mounted resonator structure ensures long-term thermal and mechanical stability
- > Very compact package

# Specifications

## ML PIV

|   |          |
|---|----------|
| Repetition Rate (Hz)                                | 1-15     |
| Energy (mJ)   |          |
| 1064 nm   | 50       |
| 532 nm  | 25       |
| Pulsewidth <sup>1</sup> (nsec)                      |          |
| 1064 nm   | 4 - 6    |
| 532 nm  | 3 - 5    |
| Divergence <sup>2</sup> (mrad)                      | < 3      |
| Rod Diameter (mm)                                   | 3        |
| Energy Stability <sup>4</sup> (±%)                  |          |
| 1064 nm   | 2.0; 0.7 |
| 532 nm  | 3.0; 1.0 |
| Beam Spatial Profile (fit to Gaussian) <sup>5</sup> |          |
| Near Field (<1M)                                    | 0.70     |
| Far Field (∞)                                       | 0.95     |

<sup>1</sup> Full width half max

<sup>2</sup> Full angle for 86% (1/e<sup>2</sup>) of energy

<sup>3</sup> With respect to external trigger

<sup>4</sup> The first value represents shot-to-shot for 99.9% of pulses, the second value represents RMS

<sup>5</sup> A least squares fit to Gaussian profile

A perfect fit would have a coefficient of 1

All specifications at 1064 nm unless otherwise noted.

## Dimensions

|                      |  |
|----------------------|--|
| Optical Head (LxWxH) | 431.8 x 203.4 x 63.5 mm (17" x 8" x 2.5")        |
| Power Supply (LxWxH) | 380 x 197 x 365 mm (15" x 7.75" x 14") each of 2 |

## Weight

|                  |                              |
|------------------|------------------------------|
| Optical Head     | 3.6 kg (8 lbs)               |
| Power Supply (2) | 14.5 kg (32 lbs) each of two |

## Water

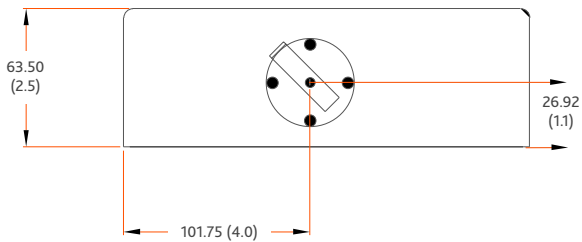
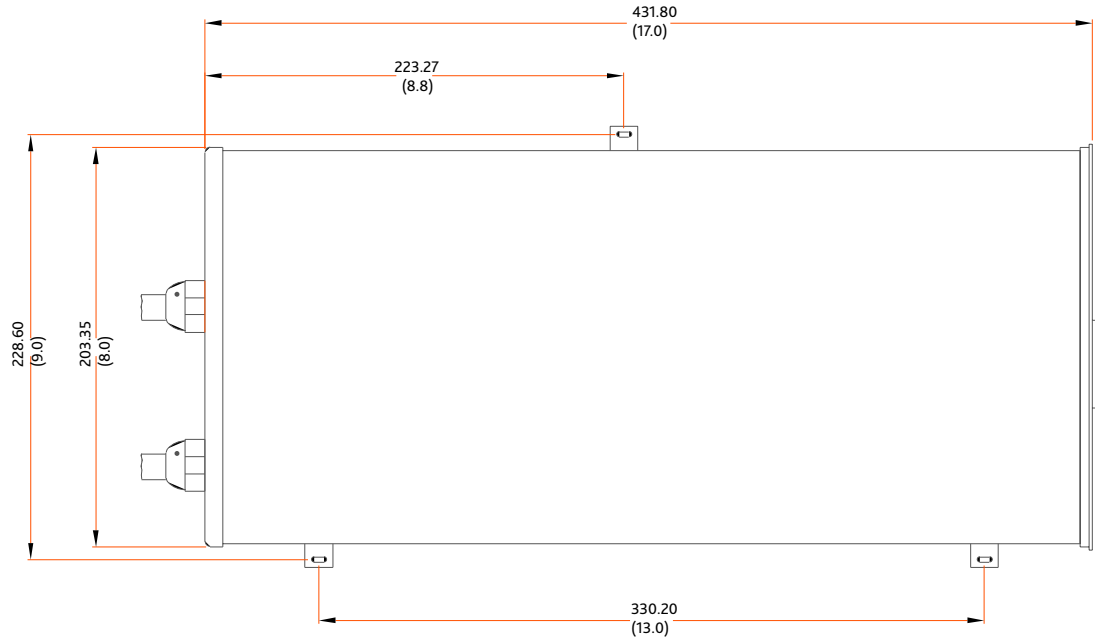
Closed loop water to air heat exchanger: external cooling water not required (10 oz. deionized water per PS)

## Others

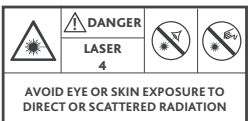
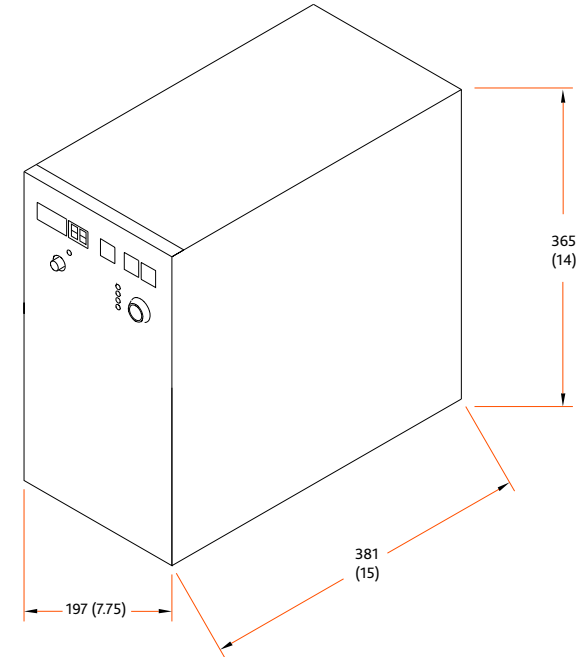
|                    |   |
|--------------------|---|
| Electrical Service | Option 1: 110 V (4 A) for each power supply<br>OR Option 2: 220 V (2A),<br>50/60 Hz for each power supply |
| Room Temperature   | 18 to 30° C (65 to 87° F)   |
| Umbilical Length   | 3.18 m (10.4 ft)  |

# Minilite Physical Layout

All dimensions are in mm (inches)



## Power Supply



# Minilite™ PIV

High Energy Nd:YAG



Continuum®  
by  Amplitude