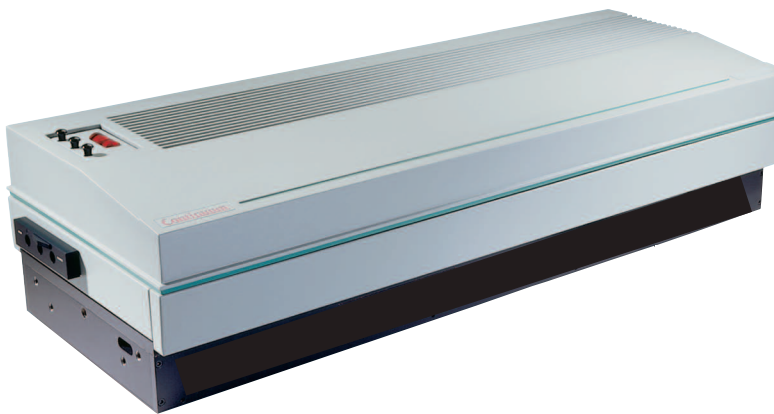


Surelite™ PIV



Surelite PIV

The Surelite PIV system is based on our proven Q-switch Nd:YAG technology. The system features a compact turn-key design providing 100'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.

Two lasers are built on a single compact platform, providing symmetrical output beam at 532 nm, that consists of two pulses with equivalent energy, beam uniformity and polarization. Temporal separation can be varied from <10 nsec to >100 nsec to measure most flow distributions.

High Energy Nd:YAG
High Energy Nd:YAG
High Energy Nd:YAG
High Energy Nd:YAG

Safety Interlocks to ensure correct water flow, level, and temperature

No need for an external water hook-up, the system is completely self-contained

A built-in TTL interface for convenient external control

A decoupled kinematic mounted resonator structure ensures long-term thermal and mechanical stability

Surelite PIV Specifications

NEW!

Description	SL I PIV	SL II PIV	SL III PIV
Repetition Rate (Hz)	10/15	10	10
Energy ¹ (mJ)			
1064 nm	450/400	650	825
532 nm	200/170	270	380
Pulsewidth ² (nsec)			
1064 nm	5-7	5-7	4-6
532 nm	4-6	4-6	3-5
Linewidth (cm ⁻¹)	1	1	1
Divergence ³ (mrad)	0.5	0.5	0.5
Beam Pointing Stability (±μrad)	100	100	100
Rod Diameter (mm)	6	7	9.5
Jitter ⁴ (±ns)	0.5	0.5	0.5
Energy Stability ⁵ (±%)			
1064 nm	2.0;0.7	2.0;0.7	2.5;0.8
532 nm	3.5;1.2	3.5;1.2	3.5;1.2
Power Drift ⁶ (±%)			
1064 nm	3.0	3.0	3.0
532 nm	5.0	5.0	5.0
Beam Spatial Profile (fit to Gaussian) ⁷			
Near Field (<1M)	0.7	0.7	0.7
Far Field (∞)	0.95	0.95	0.95
Max. deviation from Gaussian ⁸ (±%)			
Near field (<1M)	30	30	30



Notes

1. Higher energy available with Powerlite Series
2. Full width half max
3. Full angle for 86% (1/e²) of energy
4. With respect to external trigger
5. The first value represents shot-to-shot for 99.9% of pulses, the second value represents RMS
6. Average for 8 hours
7. A least squares fit to Gaussian profile
A perfect fit would have a coefficient of 1
8. At beam center

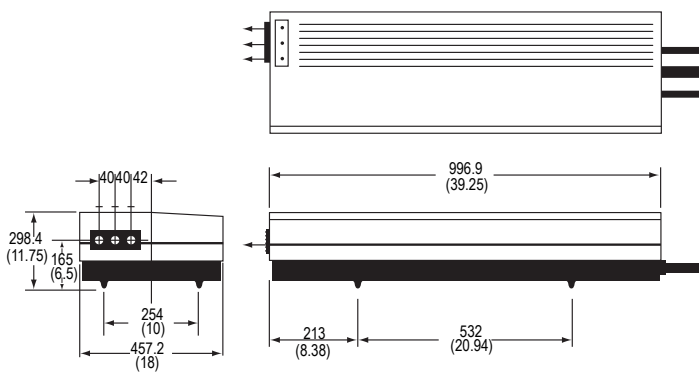
All specifications at 1064 nm unless otherwise noted.
As a part of our continuous improvement program, all specifications are subject to change without notice.

Surelite PIV System Requirements

Size	Optical Head (LxWxH)	996.9 x 457 x 298.4 mm (39.25 x 18 x 11.75")
	Power Supply (LxWxH)	622 x 282 x 521 mm (24.5" x 11.2" x 20.5")
Weight	Optical Head	78.2 kg (172 lbs)
	Power Supply (2)	44 kg (96 lbs) each of two
Water		closed loop water to air heat exchanger: external cooling water not required (10 oz. deionized water per PS)
Electrical Service		208 - 240 VAC, single ϕ , 10 A
		208 V, single ϕ , 10 A
Room Temperature		18 to 30° C / 65 to 87° F
Umbilical Length		3.18 m (10.4 ft)

Surelite PIV Physical Layout

All dimensions are in mm (inches)



Surelite PIV Power Supply (one of two)

System includes two power supplies

