

# Illumination for Light Sheet Applications

## High-Speed Imaging

# Fire *FLY*500-LS

*The compact short-pulsed laser for illumination in light sheet applications*



Fire *FLY*500-LS model

Light delivery system for visualising flow, velocity and fluid mechanics

Designed for

Time resolved PIV  
High-speed PIV  
Standard PIV



## The light sheet (LS) model

The Fire *FLY*500-LS is designed with PIV in mind. Whether for time resolved, high-speed or standard, the Fire *FLY*500-LS is a compact, affordable and reliable imaging system.

An easy-to-use, flexible light delivery system with a simple interface makes the Fire *FLY*500-LS perfect for illuminating high-speed imaging events in applications for PIV, flow visualisation and fluid mechanics.

Light sheet illumination example -  
Time resolved PIV



Courtesy: The Murphy Lab, University of South Florida

## Applications

- Time resolved PIV
- High-speed PIV
- Standard PIV
- Flow visualisation
- Fluid Mechanics
- General high-speed imaging

## Features

- High repetition rate to keep up with high-speed events
- Trigger easily from any camera, high speed or low speed
- Fully sealed air cooled laser head.



## Light sheet illumination example - Air application

Fire FLY500-LS 1kHz  
(FOV 120mm x 120mm)

Fire FLY500-LS 10kHz



## Technical Specifications

Name	Fire FLY500-LS laser
Wavelength	808nm
Laser Power	500W (at the diode)
Pulse Duration Range	50ns - 100µs (1% duty cycle limited)
Minimum Separation	330ns
Maximum Pulse Frequency	10,000Hz
Number of pulses per burst	254
Laser Class	laser class 4
Voltage	100 to 240VAC
Frequency	50/60Hz
<b>Dimensions</b>	
Head	205mm x 125mm x 70mm
Controller	270mm x 200mm x 65mm

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