



Email : sales@laboratoryinstrumentindia.com

**Product Name :**  
Laser PIV System

**Product Code :**  
LBNY-0005-10400011



#### **Description :**

##### **Camera**

Super-sensitive VGA CMOS sensor:

75 - 110 dB dynamic range;

4.8 V/lux-sec sensitivity.

640 480, 6.0  $\mu\text{m}$  pixels (1/3 format);

~50% quantum efficiency at 660 nm;

Trigger input enables image pair acquisition to be synchronised with external events.

Accepts standard CS- or C-mount lenses (12.5mm f/1.4 lens supplied).

Camera exposure can be linked to the lasers pulsing, thereby enabling operation in a lit room.

##### **Laser**

Solid-state air- cooled 200 mW, 660 nm laser diode (Class 3b).

Standard optics produce a c. 3 mm thick, 45° light sheet (c. 200 mm wide at 250 mm).

Interchangeable 20° light sheet optic available (item H41-3).

Pulse separation (t) of between 100  $\mu\text{s}$  - 5 s (in steps of 10  $\mu\text{s}$ ).

Pulse width of between 10  $\mu\text{s}$  - 32 ms (in steps of 10  $\mu\text{s}$ ).

##### **Based On:**

User-supplied velocity limits;

RMS of neighbouring vectors values.

Calculation of the following derived scalars:

Vector angle and magnitude;

Vorticity and swirl;

Time-averaged mean velocity;

RMS and turbulence intensity.

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Where applicable, vector component and statistical sample number are user-defined.

Software Processing

Data refresh and recording rate up to 16Hz (dependent on the computer speed, the selected acquisition and PIV analysis parameters and the recording taking place)

Real-time, or offline, 2-component vector calculation.

Single pass or adaptive multi-pass cross-correlation with 8, 12, 16, 24, 32 or 64 pixel window sizes.

0% or 50% window overlap (i.e. maps of up to 19,000 vectors).

Optional vector interpolation and filtering.

**Technical Specification :**

Laser PIV System



**Laboratory Instrument India**