

Product Name :
Laser PIV System**Product Code :**
Hydraulics0010**Description :**

Laser PIV System

Technical Specification :

Laser PIV System

Specification of **Laser PIV System****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 μ s - 5 s (in steps of 10 μ s).
- Pulse width of between 10 μ s - 32 ms (in steps of 10 μ s).

Camera:

- Super-sensitive VGA CMOS sensor:
- 640 — 480, 6.0 μ m pixels (1/3?? format);
- ~50% quantum efficiency at 660 nm;
- 75 - 110 dB dynamic range;
- 4.8 V/lux-sec sensitivity.
- 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.

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

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

Electrical and Electronics

Website: www.electricelectronicsindia.com, **Email:** export@electricalelectronicsindia.com

Address: 6148/6, Guru Nanak Marg, Ambala Cantt, Haryana, India, **Phone:** +91-0171-2643080, 2601773