

# miniLDV G5L-2D

**Multi-Dimensional Miniaturized Velocimetry**

Reliable. Portable. Precise.

Data collection made simple. Ideal for industrial and research applications with two-dimensional velocity flows, the miniLDV G5L-2D has an expansion lens for longer standoff distances of up to 750mm and sets up in under 30 minutes.

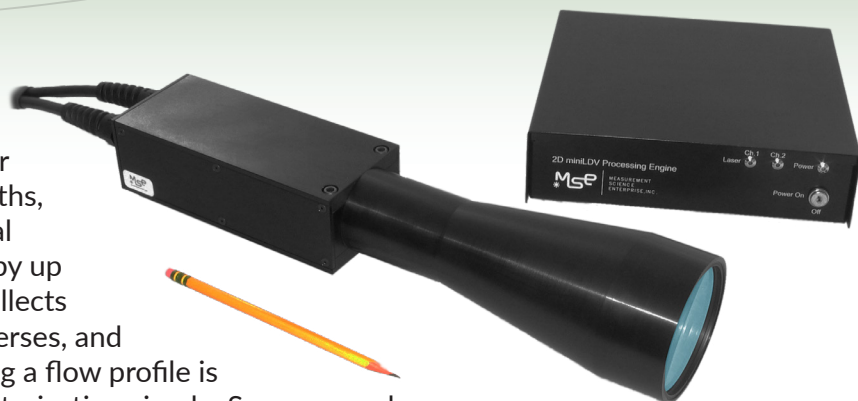
Proprietary technology enables a miniaturized and rugged sensor at a fraction of the traditional LDV size. A wide range of customizations will meet any experimental demands. Permanently aligned and calibrated, results can be acquired quickly, even with no previous experience. Just plug it into a computer, point it at the target, and it's ready to perform.

For fluids research, surface speed measurements, wind tunnel analysis, and more, the miniLDV G5L-2D is the versatile solution for 2D flows with long-standoff needs.



MEASUREMENT  
SCIENCE  
ENTERPRISE, INC.

The miniLDV G5L-2D measures two perpendicular components of velocity at extended standoff lengths, ideal for planar flows up to 750mm away. Optional reduction lenses can flexibly reduce the standoff by up to 40%. The included Burst Processor software collects data, moves the probe on optional electronic traverses, and presents flow statistics. With a traverse, measuring a flow profile is fully automated, making PIV-style full-field characterization simple. Sensors can be customized for use underwater, high temperatures and pressures, and high vibration applications.



## Advantages of the G5L-2D

- Measures two components of velocity
- Portable and lightweight
- No alignment or calibration required
- Velocity Range from low to supersonic
- Frequency shifting feature measures flow direction along with speed
- Reduction lens option: screw-on lens to reduce standoff by up to 40%

## Specifications

 **WARNING** | Avoid Exposure To Beam  
Laser Radiation | Class 3B (IIIb) Laser Product

Measurement Specifications	
Velocity Range	-50 to 600+ m/sec*
Repeatability	99.9%
Accuracy	99.7%
Measurement Volume	
Dimensions	Typical: 150 x 300 x 1200 $\mu\text{m}^*$
Standoff Distance	400mm to 750mm available
System Specifications	
Total Weight	6 lb. (3 kg)
Sensor Diameter	3" (76 mm)
Sensor Length	17.5" (444 mm)
Processing Engine	8.2" x 6.8" x 2.4" (208 x 172 x 60 mm)
Cable Length	10' (3.05 m)
Power Supply	12 VDC, 0.3 Amp

\*Values are a function of the fringe separation and standoff distance

Laser Specifications	
Laser Power	140 mW (x2)
Wavelength	658 and 830 nm
Laser Type	Class IIIb
Operating Parameters	
Temperature	5 to 40°C
Pressure	Atmospheric
Software OS	Windows 10 & 11
Port	USB-A
Traversing Stage Options	
<ul style="list-style-type: none"><li>• 1D, 2D, &amp; 3D traverse systems available for profile measurements</li></ul>	
Optional Features	
<ul style="list-style-type: none"><li>• Water Proof Housing</li><li>• High Pressure and High Temp. Housing</li><li>• Battery Powered</li></ul>	