G5X-1200

power and precision in a compact size

Developed for large flow facilities, the G5X-1200 model from Measurement Science Enterprise, Inc. (MSE) is designed with integrated folding optics resulting in the smallest and most portable LDV system on the market. With a revolutionary standoff distance of 1200 mm and 2000 mm, and a speed range of up to 400 meters per second, the G5X offers power and precision in a compact size. Extreme efficient optics design, along with high-power solid- state diode lasers have resulted in high signal strength for all ranges of flow speeds up to supersonic flow.

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MEASUREMENT SCIENCE ENTERPRISE, INC.

The G5X-1200 consists of a 2D sensor with a small yet powerful processing engine. The LDV design is based on patented technology for the accurate measurement of two velocity components. The probe is permanently aligned and calibrated, requiring no alignment or calibration by the user for the life of the system. Automated 3-D velocity profiles within a 3-D volume are achieved by combining 1-D probe, 2-D probe, and 3-D traverse system.

Advantages of the G5X-1200

- No alignment or calibration required
- Two high-power diode lasers
- High optical efficiency
- Two low-noise PMT detectors for high speed applications
- Smallest integrated housing on the market
- Small, lightweight processing engine incorporating the detectors, high speed filter banks with over 200 channels, and two FFT-based processors
- Optional 3D traversing system for automated volumetric velocity profiles

Specifications

Measurement Specifications	
Velocity Range	-40 to 400+ m/sec*
Repeatability	99.9%
Accuracy	99.7%
Measurement Volume	
Dimensions	Min: 150 x 300 x 1200 µm*
Standoff Distance	1.2 to 2 meters available
System Specifications	
Total Weight	30.8 lb. (14 kg)
Sensor Dimensions	17.6” x 6.3” x 7.4” (446 x 160 x 188 mm)
Processing Engine	8.2” x 6.8” x 3.5” (208 x 172 x 90 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	300 mW (x2)
Wavelength	405 to 830 nm available
Laser Type	Class IIIb
Operating Parameters	
Temperature	5 to 40°C
Pressure	Atmospheric
Software OS	Windows 10 & 11
Port	USB-A

Traversing Stage Options

- 1D, 2D, & 3D traverse systems available for profile measurements

Optional Features

- Water Proof Housing
- High Pressure and High Temp. Housing
- Battery Powered