

XLP Laser Scanning Probe

Models 250, 500, 1000

- **XLP laser probes are fully integrated with CyberOptics Surveyor 3D scanning systems and are easily integrated with 7-axis portable CMM arms, as well as any traditional CMM.**

Industry best speed, accuracy and resolution for laser line scanning technology available in a variety of laser line lengths.

Shorter Inspection Times

- Obtain high speed point cloud data collection with a 70% faster scan rate.
- Save time with fast program set up with Surveyor Scan Control (SSC) and direct plugins to other inspection and reverse engineering software packages.
- Scan efficiently with a gigabit ethernet connection versus USB that's plug and play ready for existing CMM's.

Better Accuracy and Resolution Performance

- Gain an accurate 3D representation of a part or object with high resolution point cloud data with 50% improved accuracy and 30% higher resolution.
- NIST traceable factory calibration ensures the measurement results from the XLP correlate to accepted standards.

Versatility for Multiple Applications

- Scan a variety of surfaces and finishes without the need of special coatings with advanced suppression controls and 3D filtering features.
- Fast 3D scanning and part set up enabled by automated, programmable 3 to 6 axis scanning control and automated path plan generation.
- In a clean room, factory floor, or metrology lab, common applications for the XLP Laser Scanner include: part-checking against CAD, dimensional inspection, GD&T measurements, reverse engineering, and more.

Application Tools Library for Integrators

- The Application Tools Library contains all the tools essential for data capturing, buffering, and outputting profile data. Consisting of ActiveX controls and available in object form for all popular PC-based development environments, the library provides a straightforward integration path for application software developers and system integrators.

With the ability to scan everything from small highly detailed parts, to large automotive and aerospace parts, XLP probes are the answer for precise laser scanning.



Specifications

	XLP 250	XLP 500	XLP 1000
Standoff distance			
Near	53 mm	60 mm	125 mm
Mid	66 mm	95 mm	205 mm
Far	79 mm	120 mm	285 mm
Depth of Field	30 mm	60 mm	160 mm
Line Length			
Near	23 mm	40 mm	56 mm
Mid	25 mm	50 mm	86 mm
Far	29 mm	60 mm	115 mm
Accuracy¹	6µm	12µm	24µm
Repeatability²	6µm	12µm	24µm
Resolution (Point Spacing)	19µm	39µm	78µm
Typical Application	Small to medium parts	Small to large parts	Medium to large parts
Sample count	1280 points/line		
Sample Rate	100 Hz 128,000 points/sec		
Weight (probe only)	585g		
Size (h x w x d)	131.17 x 93.5 x 44.398 mm		
Minimum Angle of Incidence	25 degrees		
Laser Power Output and Wavelength	8mW (class 2M) 658nm		
Permissible Ambient Light (fluorescent light)³	10,000lx		
Protection Class	IP 65		
EMC	EN 61326-1:2006-10, DIN EN 55011: 2007-11 (Group 1, Class B) EN 61000-6-2: 2006-03		
Operating Temperature	0°C to 45°C		
Storage Temperature	-20°C to 70°C		
Supply	11-30VDC, 24V, 500mA, IEEE 802.3af class2, Power over Ethernet		
Trigger	RS422		
Laser Scanning Software	Surveyor Scan Control (SSC)		
CMM Interface	PH10M with Multiwire compatible, Renishaw ACR3 compatible, or Laser Wrist. Portable arm compatible.		
CMM PC Controller Cabling	Cabling compatible with CMM controller from Renishaw (UCC2), Helmel Engineering, Zeiss C99L (Spectrum II CMM's)		
OS Compatibility	High-end Windows 7 or Windows 10 PC		
Reverse Engineering/ Inspection Software Options*	Geomagic Design X, Polyworks, SPACECLAIM, Geomagic Control X, Polyworks/Inspector		

1 Accuracy is the allowable 3σ error of the measured position of a vertex target at 12 positions within the Laser Field of View, repeated 10 times.

2 Repeatability is the allowable 3σ error of the measured position of a vertex target repeated 10 times for 12 positions within the Laser Field of View.

3 Measuring Object: Metallic, diffusely reflecting material

*Geomagic software by 3D Systems, Polyworks software by Innovmetric, Spaceclaim software by ANSYS.