



SMARTSCOPE FLASH



Personal Metrology System

	Travel	mm	in
Flash 200	X axis	200	8
	Y axis	200	8
	Z axis	150	6

A unique way of
looking at
automatic measurement

With more than two thousand systems sold, SmartScope® Flash™ 200 from OGP® is one of the most popular video measurement systems on the market. Its innovative design meets the measurement needs of manufacturers like you.

SmartScope Flash 200 is the most productive general purpose dimensional measuring system that fits on a benchtop. It excels at video measurement and can be configured as a cost-effective multisensor system with optional through-the-lens (TTL) laser, touch probe, or micro-probe.

- Flash is mechanically innovative. Its patented "elevating bridge" design creates the most compact system of any machine with comparable stage travels.
- Flash 200 has a high-quality 12:1 zoom lens that provides excellent optical performance over its entire range. This patented AccuCentric® lens maintains measurement accuracy through automatic recalibration with each magnification change, over the life of the system.
- The Flash patented profile illumination features a substage array of LED lights that tracks the optical system as it moves in the X axis. Flash also is equipped with a TTL coaxial illuminator and the patented LED SmartRing™ illuminator as standard equipment.
- Flash includes the robust yet easy to use Measure-X® metrology software. Or choose optional MeasureMind® 3D MultiSensor for full 3D functionality.



Technical Specifications

■ Standard ■ Optional

<ul style="list-style-type: none"> ■ Stage travel (XYZ): 200 x 200 x 150 mm (8 x 8 x 6") ■ Measuring unit dimensions (approx LWH): 76 x 60 x 73 cm, 100 kg ■ XYZ scale resolution: 0.5 μm ■ 0.1 μm ■ Motor drives: DC servo with joystick control (X,Y,Z, zoom) ■ Interactive stage control: 4-axis (X,Y,Z, zoom) with ergonomic, multifunction hand controller (requires MeasureMind 3D metrology software) ■ Worktable: Hardcoat anodized with fixture holes and removable stage glass, 16 kg load capacity 	
<ul style="list-style-type: none"> ■ Zoom lens: Patented¹ 12:1 AccuCentric® auto-calibrating with up to 25 calibrated positions ■ Optical accessories: 0.5x, 0.75x, 1.5x, and 2.0x lens attachments; 2.5x and 5.0x replacement lenses; LED grid projector, laser pointer (not available with TTL laser) ■ Camera: ½" format high resolution color CCD with 768 x 494 pixel array ■ Illumination: Patented² LED numeric aperture matching substage, LED coaxial TTL surface, patented³ 8 sector/8 ring SmartRing™ LED ■ Image processing: 256 level grayscale processing with 10:1 sub-pixel resolution ■ Multisensor options: Touch probe and change rack, Feather Probe™ on-axis TTL laser (contact OGP for possible combinations of sensors) 	
<ul style="list-style-type: none"> ■ Power requirements: 115/230 vac, 50/60 Hz, 1 φ, 500 W ■ Rated environment: Temperature between 18 and 22° C, stable to ± 1° C; 30-80% humidity (non-condensing); vibration <0.001g below 15 Hz ■ Operating environment: 15-30° C 	
<ul style="list-style-type: none"> ■ Metrology software: Measure-X® ■ MeasureMind® 3D MultiSensor ■ Controller: Minimum configuration Pentium® processor @ 2.8 GHz, 1 GB RAM, 80 GB hard drive, 1.44 MB floppy drive, DVD-RW drive, parallel, serial, and USB 2.0 ports, on board 10/100 LAN ■ Operating system: Microsoft® Windows™ XP Professional ■ Controller accessory package: Single 22" or 24" flat panel LCD monitor, or dual 22" flat panel LCD monitors; keyboard, mouse (or user supplied) ■ Software: For use with Measure-X or MeasureMind 3D; MeasureFit® Plus, SmartReport® powered by QC-Calc, SmartFeature®, QC-Calc™, TrueMap™ ■ Software: For use with MeasureMind 3D only; SmartCAD® 3D, SmartFit® 3D, SmartProfile™, SmartScript®, I++ DME, SmartTree™ 	
<p>Where L=measuring length in mm. Applies to thermally stable system in rated environment. All optical accuracy specifications at maximum zoom lens setting.</p> <ul style="list-style-type: none"> ■ XY area accuracy: $E_z=(2.0 + 6L/1000) \mu m^*$ ■ Z linear accuracy: $E_z=(3.5 + 6L/1000) \mu m^{**}$ ■ Z linear accuracy: $E_z=(2.5 + 6L/1000) \mu m^{**}$ (with optional 2.0x lens attachment and grid projector) ■ Z linear accuracy: $E_z=(2.0 + 6L/1000) \mu m^{**}$ (with optional TTL laser and 5.0x replacement lens) ■ Z linear accuracy: $E_z=(1.4 + 6L/1000) \mu m^{**}$ (with optional TP-200 touch probe) 	
<ul style="list-style-type: none"> ■ Warranty: One year, on-site ■ Accessories: Fixtures and calibration artifacts, service and support contracts, machine stand, controller workstation, rotary indexers 	

¹Patent Number 5,389,774 ²Patent Number 6,161,940 ³Patent Number 5,690,417

*With evenly distributed 5 kg load in the standard measuring plane. Depending on load distribution, accuracy at maximum rated load may be less than standard accuracy. XY axis artifact: QVI 25 intersection grid reticle in the standard measuring plane. The standard measuring plane is defined as a plane that is 25 mm above the worktable.

**Z axis artifact: QVI step gage or master gage blocks.



Optical Gaging Products Inc.

A Quality Vision International Company

Multisensor Measurements for Manufacturing Professionals

World Headquarters and Technology Center: 850 Hudson Avenue • Rochester, NY 14621 USA • Tel 585.544.0400 • Fax 585.544.8092

Western USA Regional Office: 615 South Madison Drive • Tempe, AZ 85281 USA • Tel 480.889.9056 • Fax 480.889.9059

OGP Shanghai Co, Ltd: 17 Lane 593 • East Jin An Rd • Pu Dong New District • Shanghai, China 201204 • Tel 86.21.5045.8383/8989 • Fax 86.21.6845.8800

OGP Messtechnik GmbH: Nassaustr. 11 • 65719 Hofheim-Wallau, Germany • Tel 49.6122.9968.0 • Fax 49.6122.9968.20

Optical Gaging (S) Pte Ltd: 21 Tannery Road, 347733 Singapore • Tel 65.67.41.8880 • Fax 65.68.46.8998

Internet: www.ogpnet.com • info@ogpnet.com