



The Standard for Benchtop Video Metrology

	Travel	mm
ZIP 250	X axis	250
	Y axis	150
	Z axis	200
Extended X (Option)	X axis	300

SmartScope ZIP® 250 is the preferred video measurement system of manufacturers around the world. Video measurement capabilities are enhanced by a high-resolution color video camera, and full spectrum LED illumination provides enhanced imaging, improving video signal processing. As a multisensor machine, SmartScope ZIP 250 is available with contact and non-contact probes, including the unique switchable TTL (through-the-lens) laser.

- The innovative ergonomic controller combines joystick stage control and other important operational controls so they are right at hand.
- SmartScope ZIP 250 is reliably constructed with a cast metal base, steel column, hardened worktable, and heavy duty mechanical slides.
- SmartScope ZIP 250 features OGP® MeasureMind® 3D MultiSensor metrology software, designed to take full advantage of a 3D measurement environment. It combines a user-friendly interface with high-powered algorithms, yielding dependable and reliable performance.
- SmartScope ZIP 250 is highly capable. Its video performance and optional non-contact point sensors and touch probes allow ZIP 250 to verify the most complex dimensions.

The Industry Standard — Updated



Technical Specifications

■ Standard ■ Optional

<ul style="list-style-type: none"> ■ Stage travel (XYZ): 250 x 150 x 200 mm ■ Extended X axis: 300 mm ■ Measuring unit dimensions (LWH): 74 x 54 x 80 cm, 120 kg ■ Computer dimensions (LWH): 76 x 45 x 56 cm, 23 kg ■ Scale resolution: 0.1 μm ■ 0.05 μm ■ Motor drives: DC servo ■ Manual stage control: 4 axis control (X,Y,Z, zoom) with ergonomic, multi-function hand controller ■ Stage velocity: Z axis min 100 mm/sec; X,Y axis 150 mm/sec ■ Worktable: Hardened worktable with fixture holes, removable stage glass, and 25 kg load capacity
<ul style="list-style-type: none"> ■ Zoom lens: Patented[†] 5:1, AccuCentric[®] auto-calibrating, motorized, 10 position ■ Lens attachments: 0.5x, 0.75x, 1.5x, 2.0x ■ Front replacement lenses: 1.0x ■ 2.0x, 2.5x, 5.0x, 10.0x ■ Adapter tubes: 1.0x ■ 0.67x, 2.0x ■ Illumination: Substage LED backlight (collimated, green), white TTL LED surface illumination, and patented^{††} SmartRing[™] white LED illuminator ■ Vu-Light oblique illuminator, small fiber optic ring light, fiber optic surface light, large fiber optic ring light ■ Accessories: Autofocus grid projector (LED) ■ Camera: ½" format high resolution color CCD with 768 x 494 pixel array ■ High resolution black and white (in lieu of color camera) ■ Image processing: 256 level grayscale processing with 10:1 sub-pixel resolution ■ Multisensor options: Touch probe and change rack, DRS[™] laser, TTL laser, Rainbow Probe[™] scanning white light sensor, Feather Probe[™], laser pointer (not available with 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, 700 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, safe operation: 15-30° C
<ul style="list-style-type: none"> ■ Metrology software: OGP MeasureMind[®] 3D MultiSensor ■ OGP Measure-X[®] (in lieu of MeasureMind 3D), MeasureMind 3D offline ■ Computer: Minimum configuration Dual Core processor @ 1.8 GHz, 1.0 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 ■ Computer accessory package: 22" flat panel LCD monitor, or dual 22" flat panel LCD monitors, keyboard, three-button mouse (or user supplied) ■ Software: For use with Measure-X or MeasureMind 3D; MeasureFit[®] Plus, MeasureMenu[™], SmartReport[®] powered by QC-Calc[™], Scan-X[®] ■ Software: For use with MeasureMind 3D only; SmartFit[®] 3D, SmartScript[®], SmartTree[™], SmartProfile[™]
<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: $E_2 = (1.8 + 6L/1000) \mu\text{m}^*$ ■ Z linear accuracy: $E_1 = (3.5 + 5L/1000) \mu\text{m}^{**}$ ■ Z linear accuracy: $E_1 = (2.5 + 5L/1000) \mu\text{m}^{**}$ (with optional 2.0x replacement lens/grid projector) ■ Z linear accuracy: $E_1 = (2.0 + 5L/1000) \mu\text{m}^{**}$ (with optional TTL laser, or DRS-2000 laser) ■ Z linear accuracy: $E_1 = (1.0 + 5L/1000) \mu\text{m}^{**}$ (with optional DRS-300 or -500 laser, or TP-20 or -200 touch probe)
<ul style="list-style-type: none"> ■ Warranty: One year ■ Accessories: Calibration artifacts, rotary indexers

[†]Patent Number 5,389,774 ^{††}Patent 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.



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 65.6741.8880 • Fax 65.6846.8998
Internet: www.ogpnet.com • intl-sales@ogpnet.com