



**Optical  
Gaging  
Products**



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**SmartScope® ZIP Lite 250**

- *Accurate video metrology* – 5:1 AccuCentric® motorized zoom lens autocalibrates with every magnification change
- *Shop tough* – Rugged construction with rigid granite base and column, hardened worktable, and heavy duty mechanical slides
- *Multisensor versatility* – Optional non-contact sensors and touch probes
- *Cost-effective and capable* – SmartScope ZIP Lite is the cost-effective way to get the benefits of automatic inspection and measurement

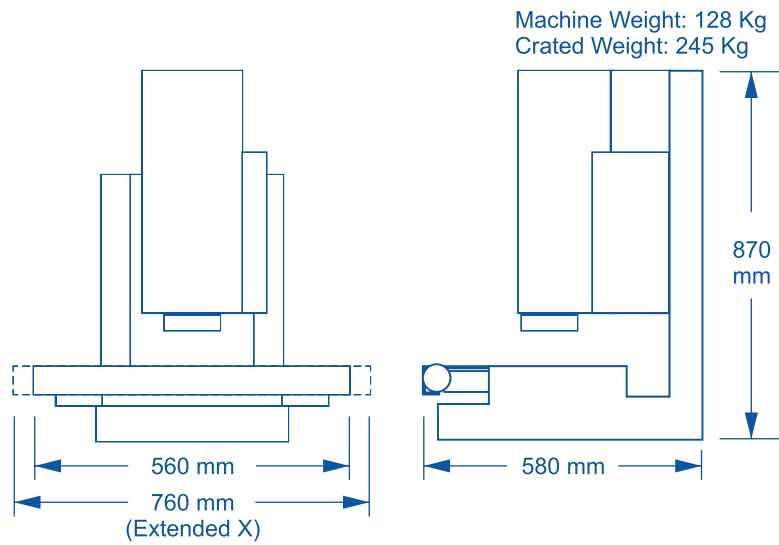
## ZIP Lite – SmartScope Performance in a Compact Benchtop System



Axis	Travel (mm)
X axis	250
Y axis	150
Z axis	150
Extended X (opt)	300



# SmartScope® ZIP Lite 250



	Standard	Optional
XYZ travel	250 x 150 x 150 mm	Extended X axis, 300 mm
XYZ scale resolution	0.5 µm	
Drive system	Stepper motors, X & Y; DC servo, Z & Zoom, joystick control	
Worktable	Hardcoat anodized, with fixture holes, removable stage glass, 20 kg recommended max payload	
Optics	5:1 AccuCentric® auto-calibrating zoom, motorized; 1.0x front replacement lens; 1.0x adapter tube	0.5x, 0.75x, 1.5x, 2.0x lens attachments; 0.67x, 2.0x adapter tubes
FOV size (std optical configuration)	Measured diagonally, 5.0 mm (low mag) to 0.9 mm (high mag)	
Illumination	Substage LED profile (green), coaxial LED surface TTL (white), patented† SmartRing LED ring light (white)	
Camera	High resolution, color	High resolution, black & white digital metrology camera
Image processing	256 level grayscale processing with 10:1 subpixel resolution	
Sensor options (contact OGP for possible combinations of sensors)		Touch probe and change rack, off-axis DRS™ laser
Controller	Windows® based, with up-to-date processor and on board networking/communication ports	
Controller accessory package		24" flat panel LCD monitor, or dual 24" flat panel LCD monitors, keyboard, 3-button mouse (or user supplied)
Metrology software	MeasureMind® 3D MultiSensor	Measure-X®, MeasureMind 3D Offline
Productivity software		MeasureFit® Plus, SmartReport® powered by QC-Calc, SmartFit® 3D, SmartProfile®, Scan-X®, TrueMap™, SmartScript®, SmartTree™
Power requirements	115/230 vac, 50/60 Hz, 1 phase, 300 W	
Rated environment	Temperature 18-22° C, stable to ±1° C; 30-80% humidity; vibration <0.001g below 15 Hz	
Operating environment, safe operation	15-30° C	
XY area accuracy <sup>1</sup>	$E_2 = (2.0 + 6L/1000) \mu\text{m}^{2,3,4}$	$E_2 = (2.0 + 8L/1000) \mu\text{m}^{2,3,4}$ (with optional extended X axis)
Z linear accuracy <sup>1</sup>	$E_1 = (3.5 + 6L/1000) \mu\text{m}^4$	$E_1 = (2.5 + 5L/1000) \mu\text{m}^4$ (with optional DRS-300 or -500 laser, or TP20 or 200 touch probe)

†Patent Number 5,690,417

<sup>1</sup>Where L = measuring length in mm. Applies to thermally stable system in rated environment. All optical accuracy specifications at maximum zoom lens setting.

<sup>2</sup>With evenly distributed load up to 5 kg. Depending on load distribution, accuracy at maximum rated load may be less than standard accuracy.

<sup>3</sup>Measured in the standard measuring plane. The standard measuring plane is defined as a plane that is within 25 mm of the worktable surface.

<sup>4</sup>E<sub>1</sub>, Z axis linear and E<sub>2</sub>, XY area accuracy standards are described in QVI Publication Number 790762.



World Headquarters: Rochester, NY, USA • 585.544.0400 • www.ogpnet.com  
 OGP Shanghai Co, Ltd: Shanghai, China • 86.21.5045.8383/8989 • www.smartscope.com.cn  
 OGP Messtechnik GmbH: Hofheim-Wallau, Germany • 49.6122.9968.0 • www.ogpmesstechnik.de  
 Optical Gaging (S) Pte Ltd: Singapore • 65.6741.8880 • www.smartscope.com.sg

