

SYSTEM	
ZYGO P/N	6312-0100-01 Standard XYZ stages 6312-0100-11 Encoded XYZ stages 6312-0100-03 Std. XZ stages w/ ext. Y
Measurement Technique	3D coherence scanning interferometry, SureScan™ technology, and phase shifting interferometry
Scanner	Precision Piezo drive with Closed loop capacitance gauge control and crash protection
Objectives	1.0X – 100X magnification; Standard and long working distance; See the Nexview & NewView 9000 Series Objective Chart for more details
Objective Mounting Options	<ul style="list-style-type: none"> • Single objective dovetail • Manual Encoded 4-position turret • Motorized 4-position turret
Optical Zoom	Motorized 3-position encoded zoom • 0.5X, 1.0X, 2.0X included • 0.75X, 1.5X optional
Field of View	Objective and zoom selectable from 0.04 x 0.04mm to 17.49 x 17.49mm, Integrated field stitching for larger areas
Illuminator	Proprietary solid-state white light source with software-selectable field stop, aperture stop and spectral filters
Measurement Array	Selectable 1600 x 1200, 1000 x 1000, 1000 x 600, 1000 x 200
Part Viewing	Selectable Monochrome and Color imaging with available fringe-free viewing mode
Focus	Motorized manual or auto focus with through-the-lens focus aid
Z-Drive (Focus) Stage	100 mm range with 0.1 µm resolution
Part Stage	Motorized stage travel range: XY: 200 mm or 200x325mm; Tilt: ±4 ; Encoded 200x200x100 (XYZ) optional
System Controller	i7 class PC with 27 in. 1080P display
Software	ZYGO Mx software running under Microsoft Windows 10 (64-bit)

PHYSICAL	
Dimensions (HWD)	146 x 73 x 61 cm (min. height, doors closed) 164 x 73 x 83 cm (max. height, doors open) Optional Workstation: 83 x 73 x 61 cm (drawer closed)
Weight	Nexview System: 248 kg

UTILITY REQUIREMENTS	
Input Voltage	100 to 240 VAC, 50/60 Hz
Compressed Air for Table	4.1 to 5.5 bar (60 to 80 psi); dry and filtered; 6 mm OD hose input, ¼ in. adapter included
Vacuum	Optional connection for 6 mm hose

PERFORMANCE	
Vertical Scan Range	150 µm with precision Piezo drive; 20 mm with extended scan
Surface Topography Repeatability ⁽¹⁾	0.06 nm
Repeatability of RMS ⁽²⁾	0.005 nm
Optical Lateral Resolution ⁽³⁾	0.34 µm (100X objective)
Spatial Sampling	0.04 µm (100X objective 2X zoom)
Maximum Data Scan Speed ⁽⁴⁾	53 µm/sec @ 1600 x 1200 69 µm/sec @ 1000 x 1000 107 µm/sec @ 1000 x 600 171 µm/sec @ 1000 x 200
Step Height Repeatability ⁽⁵⁾	0.1%
Step Height Accuracy ⁽⁶⁾	0.3%

TEST PART CHARACTERISTICS	
Material	Opaque, transparent, coated, uncoated, specular, rough
Maximum Sample Height	89mm; increase by using head and or gantry risers
Maximum Surface Slope	55° – smooth part @ 100X 85° – scattering surface
Sample Reflectivity	0.05% - 100%
Max. Sample Mass	10 kg

ENVIRONMENTAL REQUIREMENTS	
Temperature	15 to 30°C with rate of change <1.0°C per 15 min
Humidity	5 to 95% relative, noncondensing
Vibration Isolation	Included and required for vibration in the range of 1 Hz to 120 Hz
Vibration Criterion	VC-C or better
Acoustic Criterion	NC30 or better

FOOTNOTES

- Performance specifications under laboratory conditions using standard specimens, according to ISO 25178-601, 25178-604 and 5436-1.*
- (1) Surface Topography Repeatability for SmartPSI mode, 1-sec acquisition, full FOV with 3x3 median filter, in a laboratory environment.
 - (2) Repeatability of the RMS surface roughness parameter Sq, under the same conditions as for (1). Note that the repeatability of the Sq is sometimes referred to informally as "vertical resolution."
 - (3) Lateral Resolution=Sparrow criterion, objective dependent.
 - (4) Data scan speed depends on the measurement array and data acquisition mode.
 - (5) 1-σ Step height repeatability verified using 1.8 µm and 24 µm ZYGO certified step height standards.
 - (6) Instrument contribution to uncertainty for step height measurements using the piezo drive.

Distribution in the UK & Ireland



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