

# Model 4HPS Phase Interferometer



The 4-inch aperture Model 4HPS incorporates many features of our Model 4VPS interferometer in a Horizontal format instrument. Using a standard bayonet-mount Transmission Flat, the interferometer can also be used for spherical work with the addition of an appropriate transmission sphere.

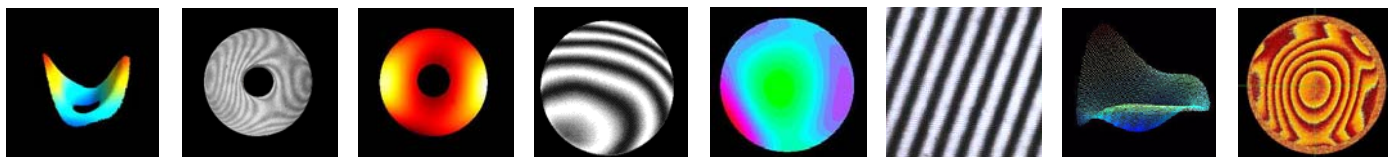
The single-Mode Diode Laser source operating at 635 nm is dithered to produce speckle-free live images directly on the computer monitor, with no need for a separate video monitor.

Employing Graham's EndoPhase™ system, the Model 4HPS produces ultra-smooth phase shifting with no hysteresis. The instrument's proprietary optical system guarantees high contrast interferograms with no Bull's-eye aliases.

Durango Universal Interferometry Software produces highly accurate and repeatable measurements. A two-spot alignment system facilitates quick test -piece alignment. The Model 4HPS includes a 2.93 GHz Computer with Intel Core i3-530 Processor as well as a 22-inch TFT wide screen monitor.

The Interferometer includes a tip/tilt plate with industry standard bayonet mount which accepts either a transmission flat for Plano work or an appropriate transmission sphere for the measurement of spherical surfaces. A standard 4% reflectance transmission flat is standard equipment with the Model 4HPS. Transmission spheres are available as accessories.

Compact and sturdy, this rugged instrument is equally at home in the QC lab or in the optical fabrication shop. Provided with a remote control of Focus, Zoom, and Intensity, the 4HPS is very easy to use and is user-friendly in any environment.



Typical Interferograms and Durango Graphics



## SPECIFICATIONS

Aperture	4-inches	Zoom Optics	6x
Laser	Single Mode	Wavelength	635 nm
CCD Camera	768 x 494 pixels	Optical Centerline	4.25 in.
Dimensions L x W x H	20 x 14 x 8.5	Weight	60 pounds
Computer	HP 2.93 GHz	Monitor	22 inch TFT wide screen
Software	Durango	Alignment	2-spot
Power	115/240 Volts 50/60 Hz	Warranty	2 years

***We sell metrology solutions***

# Model 4HPS Phase Interferometer



FEATURE	BENEFIT
Single-mode Diode Laser	For long life, fast warm-up, high contrast
Tip / Tilt plate for mounting of T-Flats and T-Spheres	1/20 wave T-flat provided
Zoom lens 6X	Remote control of zoom, focus, iris and intensity
Two-spot alignment	For easy alignment of test pieces
Dithered Laser source operating at 635 nm	Speckle-free images
EndoPhaze™	Smooth Phase Shifting with no hysteresis
CCD camera (768 x 494 pixels)	High Resolution
High Contrast interferograms	No Bull's-eye aliases
Durango Universal Interferometry Software	Windows environment PV and rms in users choice of units High level of repeatability Excellent reproducibility Large choice of graphic displays Dynamic Sections 3-D OPD Plot Reference Subtraction MTF and PSF graphics and plots Zernike Polynomials available for all measurements Seidel Coefficients available
2.93 GHz computer with Intel Core i3-530 Processor	For high speed data reduction and phase shift control
Live interferogram on computer monitor	No need for separate video monitor
Repeatability	1/300 wave PV ( < 2 nm PV ) 1/10,000 wave rms ( < 0.1 nm rms )
Data Acquisition time 30 milliseconds (typical) Data reduction time ~3 seconds (typical)	Fast!
Dimensions: (L x W x H) 20 x 14 x 8.5 inches 50.8 x 35.5 x 21.6 cm	Small footprint
Manual	Illustrated Operator's Manual
Power 115/240 Volts 50/60 Hz	Wired with proper plug for user's power system
Warranty	Standard two-year limited warranty against defective components or workmanship

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