



AccuFiz™

4D Technology

Fizeau Interferometer

Best Performance

The new, compact AccuFiz™ interferometer offers an unmatched combination of performance, quality and value, for high accuracy shape and transmitted wavefront quality measurements of optical surfaces, components and systems.

With its diffraction-limited imaging system, the AccuFiz provides unparalleled accuracy at mid-spatial frequencies, letting you measure polishing artifacts that other interferometers simply miss.

The AccuFiz is loaded with standard features, such as a touch-screen remote, fully motorized controls and tool-free height adjustment. Smart Zoom™ ensures repeatable lateral resolution at all zoom settings. Rugged construction, user-friendly 4Sight software, and quality in every detail make the AccuFiz your new best choice for verifying optics.

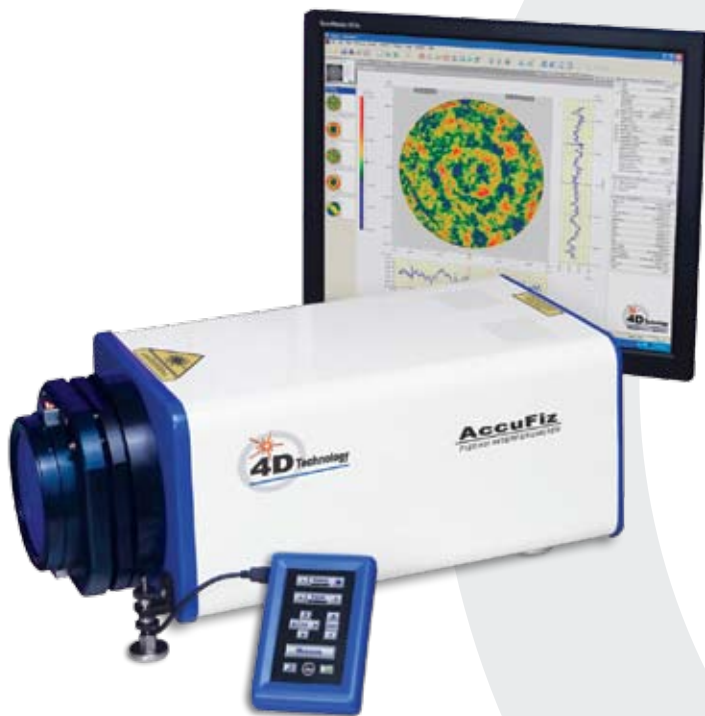
Best Software

The included 4Sight wavefront analysis software features an intuitive interface and excellent ease of use. The Measurement Screen puts all common measurement controls in one place, while the Measurement Flow lets you visualize the entire measurement data flow. 2D and 3D displays, filtering options, and masking tools make it easy to highlight surface shape and texture. Zernike, Seidel, geometric and diffraction analyses are easy to perform. Comprehensive data sharing capabilities let you read, write, save and print most file types.

Best Value

The AccuFiz product line offers unprecedented value. A range of laser sources, aperture sizes, mounting configurations and accessories provides flexibility for a wide range of applications and budgets. Optional Dynamic Interferometry® capability lets you measure despite vibration and air turbulence, without an air table.

4D Technology has built its reputation by designing unique interferometers to solve extreme measurement challenges. The New AccuFiz channels that expertise into an all-purpose interferometer with an unprecedented combination of performance and value.



AccuFiz Fizeau Interferometer

FEATURES

- Temporal Phase Shifting and Dynamic Operation
- Compact, Light Weight and Extremely Rigid
- Highest Available Accuracy at Mid-Spatial Frequencies
- Smart Zoom™ with Pan, for Accuracy at All Zoom Settings
- Handheld Touch Screen Remote Control
- Range of Apertures, Wavelengths and Options
- Simplified Interface for Ease of Use

AccuFiz™

Specifications

Description	AccuFiz™
Optical Configuration	Fizeau interferometer system
Acquisition Mode	Temporal Phase Shifting, optional Dynamic Measurement
Laser Source	632.8 nm HeNe; optional stabilized laser; optional 532 and 1053 nm wavelengths
Output Beam	4 in or 6 in (100 mm or 150 mm), collimated, circular polarization
Reference Optics	Bayonet mounted
Zoom	Smart Zoom, 10X with pan
Pupil Focus Range	Motorized; 4 in model: ± 2 m, at all zoom settings 6 in model: ± 4.5 m, at all zoom settings
Alignment	Twin spot
Camera	600 x 600 pixels, 12-bit standard; optional 1200 x 1200 pixels, 12-bit > 30 frames/sec display
Hand Controller	Remote control of focus and zoom, pan, source diameter, measurement
Computer System	High performance PC with dual monitors
Operating System	Windows 7®
System Software	4Sight™ Analysis Software

Reference generation, subtraction, data averaging, masking
2D and 3D surface maps
Zernike / Seidel / Slope / Geometric / Fourier Analysis
Fiducial aided data set mapping
Absolute Sphere, 3-Flat calibration
HDF4 / HDF5 data format standard, other files supported
including opd, map, dat, hdf, int, csv and txt
Upgrades free during warranty period

Physical Envelope	4 in model: 52.6 x 23.8 x 20.3 cm (20.7 x 9.4 x 8.0 in) 6 in model: 76.2 x 27.9 x 24.1 cm (30.0 x 11.0 x 9.5 in)
Optical Axis	4 in model: 4.25 in (10.8 cm), horizontal or vertical 6 in model: 5.25 in (13.3 cm) optical axis, horizontal or vertical
Weight	4 in model: <13.6 kg (30 lbs) 6 in model: <22.7 kg (50 lbs)
Power Consumption	< 750 Watts
Temperature Range	Operational: 60–80° F, non-condensing Storage: 30–100° F, non-condensing

Warranty One Year, limited, on-site system installation and operator training

System Performance

Fringe Resolution	1200 x 1200 camera: > 500; 600 x 600 camera: >250
Sample Reflectivity	1 to 100% (attenuation required)
RMS Repeatability	< 0.00020 waves RMS* base model; < 0.00008 waves RMS* with Extended Precision Option
Uncalibrated Accuracy	< $\lambda/20$ transmission flats (reference flat or sphere limited)

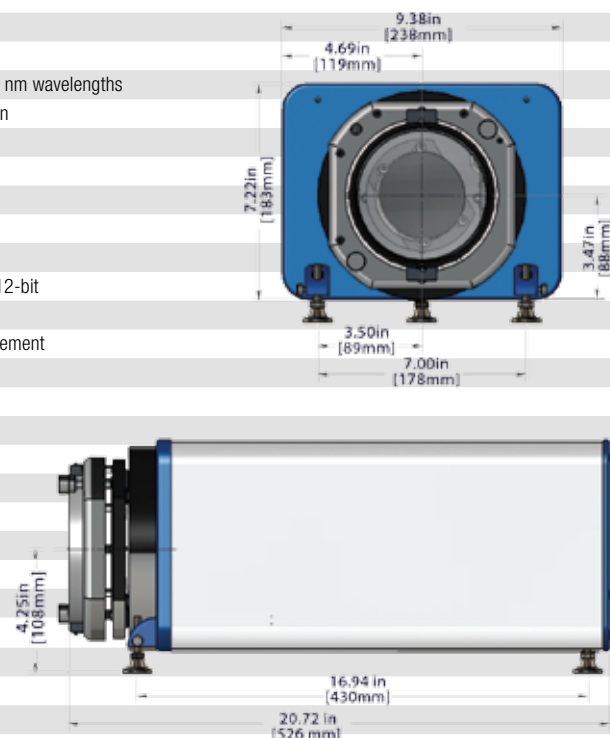
All specifications subject to change without notice.

* One sigma for RMS of 10 data sets of calibration mirror, each data set being an average of 16 measurement

Dynamic Interferometry is a registered trademark, and AccuFiz is a trademark of 4D Technology Corporation. Windows 7 is a registered trademark of Microsoft Corporation.



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AccuFiz 4-inch Model
Dimensions



Model	Laser Safety Warnings
HeNe Laser	VISIBLE LASER RADIATION, DO NOT STARE INTO BEAM CLASS II LASER PRODUCT <0.5mW at 632.8nm
Stabilized HeNe Laser	VISIBLE LASER RADIATION, AVOID DIRECT EYE EXPOSURE CLASS II LASER PRODUCT <0.5mW at 632.8nm
532 nm Option	VISIBLE LASER RADIATION, AVOID EXPOSURE TO BEAM, CLASS III LASER PRODUCT <0.5mW at 532nm
1053 nm Option	INVISIBLE LASER RADIATION, AVOID EXPOSURE TO BEAM, CLASS III LASER PRODUCT <0.5mW at 1053nm