

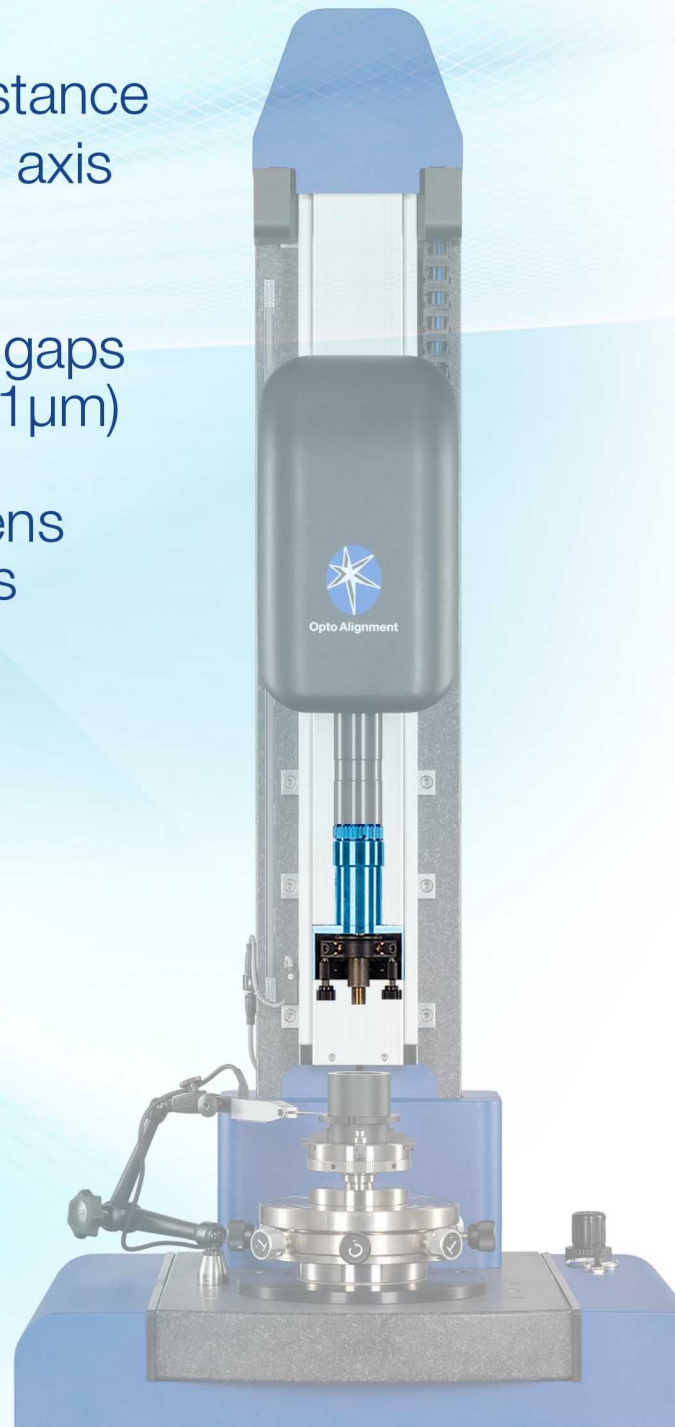


# Opto Alignment

## **LAS-DMI™**

**High Accuracy, Quick-Attach, On-Axis Distance  
Measuring Interferometer (DMI) for LAS**

- Quickly convert your LAS into a Distance Measurement Interferometer for on axis metrology of optical systems
- Measures center thickness and air gaps of all optical elements (accuracy  $\pm 1\mu\text{m}$ )
- Powerful addition to the LAS for Lens Manufacturing & Assembly Process Control
- Extensive data reporting functions
- Lenscan Software enables straightforward measurements



Designed and Built in the USA



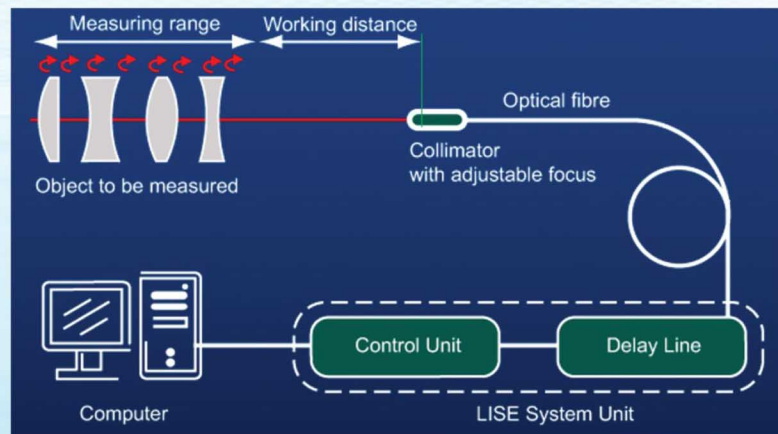


- High Accuracy Quick-Attach LAS Distance Measurement Interferometer Accessory for on-axis metrology of optical systems
- Uses Opto Alignment LAS precision centering and Fogale Nanotech low-coherence time-domain-scanning interferometry for measuring center thickness and air gaps of all optical elements (lenses, cubes, flats...) of an assembly along the optical axis
- Powerful addition to the LAS for Lens Manufacturing & Assembly Process Control
- Lenscan Software enables straightforward measurement procedure with extensive sample setup, definition, and data reporting functions



### OPERATION:

1. Light emitted by an infrared SLD is coupled into monomode optical fiber
2. Light split between measurement arm and reference arm
3. Light coming back from both arms is directed onto photodetector
4. When optical lengths of the measurement arm and the reference arm are equal, low-coherence interference is detected on the photo-detector
5. High stability mechanics along with high resolution encoders and a specific calibration procedure enable high accuracy measurement



### SPECIFICATIONS:

Lenscan	LS-40	LS-200	LS-600	LI-600
Configuration	Single Electronic Unit		Electronic Unit + Separate Delay Line	
Internal Metrology	Linear Scale	Linear Scale	Linear scale	Laser Interferometer
Measurement Range (mm)	40	200	600	600
Measurement Time (sec)	<3	<12	<36	<36
Absolute Accuracy ( $\pm \mu\text{m}$ )	<1			<0.15
Working Distance (mm)	150 - 300	250 - 400	600 - 1000	600 - 1000
Minimum Measurable Thickness ( $\mu\text{m}$ )	< 30 $\mu\text{m}$ in air			
Light Source	SLD @ $\lambda = 1310 \text{ nm}$			