

OptiSurf[®]

High Precision Non-Contact Measurement of Air Spacing and Center Thicknesses of



OptiSurf® is the ideal tool for non-contact center thickness and air gap measurements of single lenses, flat optics and within optical systems. The instrument is based on low coherent interferometry and measures all surface distances in an optical system with an accuracy up to $0.15 \,\mu\text{m}$ in one scan.

Especially the alignment of the sample with respect to the measurement axis has been greatly simplified compared to conventional systems: An innovative alignment tool together with the adjustable sample holder and the software allows even inexperienced operators to accurately align and measure lenses and optical systems. This time saving innovation qualifies OptiSurf® for use in production.



The OptiSurf® Professional Software

Perfect for the Analysis of Optical Systems

- Supports intuitive handling, alignment and measurement process
- Lens design input via OptiCentric[®] interface, directly from Zemax or via a lens design editor
- Automated surface identification for fast and precise measurements
- Comparison with design data and identification of deviations for use in quality control
- Statistical analysis of measurement results
- Two level user interface: for complex analysis routines in R&D phase and easy to handle operation in production

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ompany: TRIOPTICS	Operator: ER	Part No: 58892	Serial No:	Temperature: 20.13	Comment: Measurement Range =	300 mm to 400 mm					
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Meas. Parameter	Focus Stage	Interference Signal	1								
Focus Position		Autoscale	2,5-								
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1											
ns Design		Tabular Results Co	ertificate								
ens Design	11	Tabular Results Ci		nm) 3. S-FPL51 (mm	4. S-LAH60 (mm)	5. Air (mm)	6. S-BAH3	2 (mm)	7. Air (mm)	8. S-LAH65 (mm	Last
ens Design	11	1. S-8SL7 ((mm) 2. Air (r	nm) 3. S-FPL51 (mm		5. Air (mm) 2.6701		<mark>2 (mm)</mark> 0.8978	7. Air (mm) 11.1653	8. S-LAH65 (mm 3.947	
ens Design		1. S-8SL7 (10.	(mm) 2. Air (r .9503 3.8		7 0.9137						9
ens Design		1. S-05L7 (10. 10.	(mm) 2. Air (r .9503 3.8 .9500 3.8	963 7.436	7 0.9137 4 0.9138	2.6701		0.8978	11.1653	3.947	9
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ens Design		1. 5-05.7 (10. 10. 10. 10. 10. 10. 10. 10.	(mm) 2. Air (r 9503 3.8 9500 3.8 9503 3.8 9504 3.8 9504 3.8 9501 3.8	963 7.436 957 7.436 962 7.436 961 7.436 962 7.436 962 7.436 958 7.436	7 0.9137 4 0.9138 3 0.9139 6 0.9139 2 0.9139 2 0.9139 5 0.9138	2.6701 2.6698 2.6702 2.6699 2.6699 2.6699		0.8978 0.8979 0.8978 0.8980 0.8980 0.8978 0.8978	11.1653 11.1650 11.1645 11.1649 11.1651 11.1648	3.947 3.947 3.947 3.947 3.948 3.948 3.948	99 99 77 16 10
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OptiSurf[®] Professional Software showing the measurement results

	OptiSurf ®	OptiSurf [®] Ultra Precision			
Measurement accuracy	1 μm*	0.15 µm*			
Repeatability	0.5	<0.075			
Scanning Range	up to 800 mm optical distance, larger on request				
Measurement Cycle Time (per 100 mm scanning range)	14 sec. per 100mm				
Sensors for temperature and air pressure	optional	included			
Computer Interface	USB	USB			
Scope of delivery	 Measurement head with focal lenght adjustment via software Integrated visible alignment laser beam Motorized linear stage Sample holder with tilt & translation table OptiSurf® Professional Software 				

Technical Data OptiSurf®

 σ criterion for measuring 100 mm air gap between optical flats



TRIOPTICS GmbH · Optische Instrumente Hafenstrasse 35-39 · 22880 Wedel / Germany Phone: +49-4103-18006-0 Fax: +49-4103-18006-20 E-mail: info@trioptics.com · http://www.trioptics.com

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