



LUMETRICS®

Precision Measurement Solutions

OptiGauge® 2000

Non-Contact Thickness
Measurements from
100 μm to 16 mm

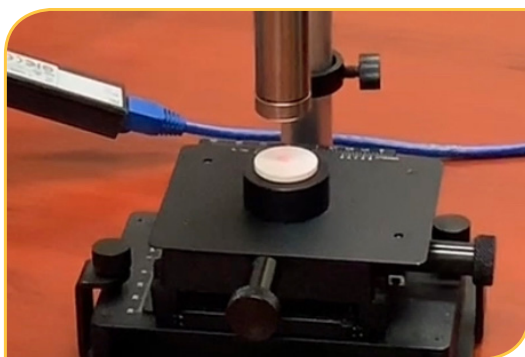


Features

- Measurement range: 100 μm to 16 mm
- Accuracy $\pm 1.0 \mu\text{m}$
- Single and multi-layer measurements
- Continuous internal calibration
- NIST traceability
- Desktop or rack mount

Typical Applications

- **Infrared Materials**- Wafers, Ge, GaAs
- **Military Applications** - Nano-composite optical ceramics
- **Solar Cells**
- **Semiconductors**
Beam splitters, prisms, wedges, satellite sensor systems, x-ray scintillators



Lumetrics® Expertise

- Patented non-contact thickness measurement technology
- Custom development of off-line and on-line systems, fixtures, and probes
- Customized software solutions
- Complete turn-key solutions

Measurement Technology

The OG-2000 instrument is based on the time-domain low-coherence interferometry. This technology enables absolute thickness measurement of any material, which is transparent or partially transparent to the measurement of light. The OG-2000 uses infrared light with the center wavelength of approximately 2 microns. The OG-2000 is designed to measure specialty and rare materials, such as Germanium, Gallium Arsenide, nano-composite optical ceramics and others. Conventional glass and plastic materials can be measured as well. Our patented technology allows for fast real-time measurements, and can be used for on-line process control as well as off-line quality control purposes.



About Lumetrics®

For more than a decade, Lumetrics has provided precision measurement solutions to leading edge companies throughout the world. Our systems are deployed in quality, R&D labs, and production floors. We provide real-time measurements to improve yield, reduce cost, improve quality, and meet compliance requirements.

Our extensive metrology expertise sets us apart from the competition.

“Let our engineering team solve your toughest measurement problems.”

- The top ophthalmic companies use the OptiGauge for contact lens and IOL inspection.
- The largest glass manufacturers in the world use the OptiGauge to optimize production and ensure quality.
- The majority of top medical device companies use OptiGauge for quality control and R&D purposes.



OptiGauge 2000 Unit

OptiGauge 2000	
Measurement Method	Low Coherence Interferometry
Measurement Wavelength	2000 ± 100 nm
Software	Lumetrics OptiGauge Control Center®
Common Measured Materials	Glass, Plastic, Tubing, Silicon, Coatings, Fluids, Air Gaps, specialty materials, ceramics
Number of Layers Measured	Up to 20
Thickness Measurement Range	16 mm
Units of Measurement	µm, mm, mils, in, µ in
Accuracy	± 1 µm
Repeatability	± 1 µm
Measurement Rate	10 Hz
Power Requirements	AC 110 V – 240 V 50/60 Hz, 20 watts / 30 VA
Dimensions	17" (w) × 4.5" (h) × 19.5" (d) 43.18 cm (w) × 11.43 cm (h) × 49.53 cm (d)
Weight	27 lbs. (12.25 kg)
Operating Temperature Range	59° – 86°F (15° – 30°C)
Operating Relative Humidity	10 – 90% (non-condensing)
Output Connectivity	RS-232



Measurement Probes

OptiGauge 2000	
Optical Probe	25mm (Standard)
Working distance	24 mm
Measurement spot size	40 mm
Angular tolerance	± 2 °
Optical fiber length*	3 m standard, up to 1000 m
Optical Probe	Other Custom Probes Available
Working distance	20-200 mm
Measurement spot size	10-100 mm
Angular tolerance	± 1-± 10°
Optical fiber length*	3 m standard, up to 1000 m

* Optical fiber sold separately. Standard probe operating temperature –40° – 185°F (–40° – 85°C)



Minimum Computer Requirements

OptiGauge Control Center software license is included with each OptiGauge 2000 system

OptiGauge 2000	
Operating system	Microsoft® Windows 7 Professional 64-bit, Windows 8 Pro 64-bit, Windows 10 Pro 64-bit
Processor	4th Generation Intel® Core i5
Hard drive/Memory	10GB free hard drive space required/ 4GB RAM
Connection	USB 2.0, USB 3.0, Ethernet
Screen resolution	1600 × 900 pixels

(Specifications subject to change without notice)

1565 Jefferson Rd, #420 Rochester, NY 14623 585-214-2455

sales@lumetrics.com engineering@lumetrics.com

www.lumetrics.com

**Metrology Instrumentation,
Integration, and Solutions**