



OptiGauge Precision Thickness Measurement OptiGauge Data Sheet

OptiGauge

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| Model | OptiGauge |
| Measurement Method | Low Coherence Interferometry |
| Target Materials | Single or Multi-Layer Glass, Plastic, Tubing, Silicon, Coated Metals |
| Maximum # of Layers | Up to 20 |
| Thickness Measurement Range | 12 μ m to 8mm Mechanical Thickness (Refractive Index - \approx 1.5) |
| Accuracy (Published accuracy at temperature range 20 $^{\circ}$ to 30 $^{\circ}$ C) | \pm 0.1 μ m |
| Repeatability | 0.1 μ m 1 σ |
| Measurement Scan Rate | 50Hz - 200Hz |
| Power Requirements | AC 110V - 240V 50/60Hz |
| Light Source | 1310nm SLED - 45 nm wide |
| Dimensions | 419mmW x 457mmD x 133mmH/16.5"W x 18"D x 5.25"H |
| Weight | 20lbs./9kg |
| Operating Temperature Range | 15 $^{\circ}$ to 30 $^{\circ}$ C (59 $^{\circ}$ to 86 $^{\circ}$ F)* |
| Non-Operating Temperature | -15 $^{\circ}$ to 60 $^{\circ}$ C (5 $^{\circ}$ to 140 $^{\circ}$ F) |
| Operating Relative Humidity | 10 to 90% (non-condensing) |
| Maximum Altitude | 2000 meters (6560 Ft.) |
| Data Outputs | RS-232, USB |

OptiGauge Controller

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| Operating System | MS Windows XP, Microsoft Dot Net Remoting |
| Processor | Intel Core-2 Duo |
| RAM | 1GB |
| Hard Disk | 80GB SATA |
| Power Supply | 500W Universal Input |
| Video | ASUS EXP1600PRO w/256mb DDR RAM |
| Software | Lumetrics OptiGauge Control Center |
| Dimensions | 432mmW x 533mmD x 178mmH/17"W x 21"D x 7"H |
| Weight | 28Lbs./13kg |

OptiGauge Measurement Probes

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|---------------------------------|---|
| Focal Length (Working Distance) | 25mm and 50mm |
| Optical Fiber Length | 8M standard, up to 1000M Maximum |
| Vertical Z-Axis Tolerance | \pm 5mm |
| Angular Tolerance 25mm Probe | \pm 2 $^{\circ}$ |
| | 50mm Probe - \pm 1 $^{\circ}$ |
| Probe Dimensions | 25mm Probe - 21.6mm Diameter X 108.7mm Length |
| | 50mm Probe - 21.6mm Diameter x 78.2mm Length |
| Operating Temperature Range | 0 $^{\circ}$ C - 100 $^{\circ}$ C |
| Optical Fiber Bend Tolerance | 50mm Minimum Bend Diameter |

Optical Multiplexer Switch

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| Capacity | Up to eight probes on one OptiGauge system |
| Switch Time | \approx 100ms |
| Dimensions | 432mmW x 254mmD x 45mmH/17"W x 10"D x 1.75"H |
| Weight | 4.2lbs./1.3kg |