



OptiGauge Precision Thickness Measurement Black OptiGauge Data Sheet

OptiGauge

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° to 30°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, power consumption 20 watts / 30 VA
Light Source	1310nm SLED - 45 nm wide
Dimensions	425mmW x 457mmD x 140mmH/16.75"W x 18"D x 5.5"H
Weight	20lbs./9kg
Operating Temperature Range	15° to 30°C (59° to 86° F)*
Non-Operating Temperature	-15° to 60° C (5° to 140° F)
Operating Relative Humidity	10 to 90% (non-condensing)
Maximum Altitude	2000 meters (6560 Ft.)
Data Outputs	RS-232, USB

OptiGauge Controller

Operating System	MS Windows XP, Microsoft Dot Net Remoting, Service Pack 3
Processor	Intel Core2Quad, 2.66 GHz
RAM	2GB
Hard Disk	80GB SATA
Power Supply	550W Universal Input, power consumption: controller 80-140 watts / 85-145 VA; monitor 15 watts / 23 VA
Video	Integrated Intel Graphics
Software	Lumetrics OptiGauge Control Center
Dimensions	438mmW x 501mmD x 178mmH/17.25"W x 19.75"D x 7"H
Weight	28Lbs./13kg

OptiGauge Measurement Probes

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°
	50mm Probe - \pm 1°
Probe Dimensions	25mm Probe - 21.6mm Diameter X 108.7mm Length
	50mm Probe - 21.6mm Diameter x 78.2mm Length
Probe Weight	3 ounces
Operating Temperature Range	0°C - 100°C
Optical Fiber Bend Tolerance	50mm Minimum Bend Diameter

Optical Multiplexer Switch

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