F32
Thin-Film Analyzer

The Compact Solution for In-line Measurements

Film thickness is measured in-line quickly and easily with the affordable F32. Spectral analysis of reflectance from the top and bottom of your film provides thickness information in real time.

The F32 advanced-spectrometry system comes in a half-width 3U rack-mount chassis and, with additional spectrometers, can measure up to four different locations (up to two locations for -EXR and -UVX versions). The F32 software can be controlled through digital I/O or the host software to start/stop/reset measurements. Measurement data can be exported automatically to the host software for statistical process control (SPC). Filmetrics also provides optional lens assemblies for easy integration onto existing production fixtures.

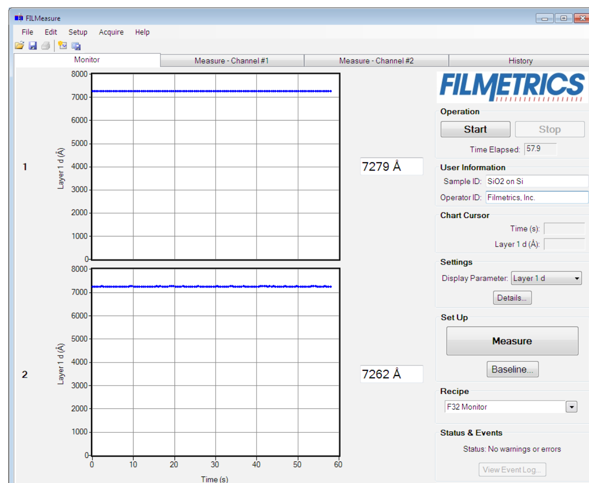
The included software and USB connectivity make installing the F32 onto any Windows-platform PC simple. With help from the FILMeasure software, which is preloaded with over one-hundred materials, measurements of single and multilayer stacks are easily attainable. New materials can be added quickly by measuring the optical constants of samples or by importing data from an existing source.

The Filmetrics Advantage

- World's leader in tabletop thin-film measurement
- 24-hour phone, e-mail, and online support
- Intuitive analysis software standard with every system

Additional Features

- Built-in online diagnostics
- Standalone analysis software included
- Sophisticated history function for saving, reproducing, and plotting results



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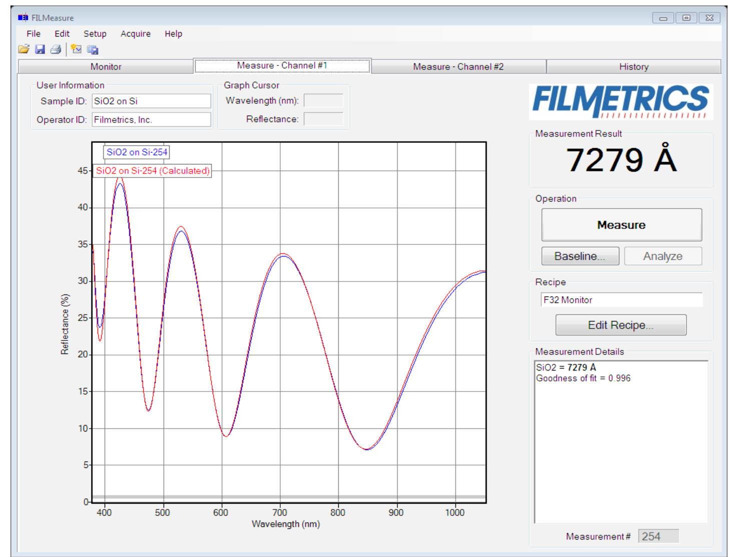

General Specifications	F32-UV	F32-UVX	F32	F32-EXR	F32-NIR	F32-XT
Spectrometer Wavelength Range:	190 - 1100 nm	190 - 1700 nm	380 - 1050 nm	380 - 1700 nm	950 - 1700 nm	1440 - 1690 nm
Light Source:	External, D2 + Halogen		Internal, Halogen			
Measurement Specifications						
Thickness Measurement Range*:	1 nm - 40 µm	1 nm- 250 µm	15 nm - 70 µm	15 nm - 250 µm	100 nm - 250 µm	0.2 µm - 450 µm
Min. Thickness to Measure n & k*:	50 nm	50 nm	100 nm	100 nm	500 nm	2 µm
Accuracy*: The greater of	1 nm or 0.2%	1 nm or 0.2%	2 nm or 0.2%	2 nm or 0.2%	3 nm or 0.4%	5 nm or 0.4%
Precision[1]:	0.02 nm	0.02 nm	0.02 nm	0.02 nm	0.1 nm	1 nm
Stability[2]:	0.05 nm	0.05 nm	0.05 nm	0.05 nm	0.12 nm	1 nm
Spot Size:	Typically probe-to-sample distance x 0.007					
Sample Size:	From 1 mm to 300 mm diameter and up					

General Requirements	
Power:	100 - 240 VAC, 50 - 60 Hz, 0.6-0.3 A
Computer Interface:	USB 2.0
Certifications:	CE EMC and safety directives
Operating System	
PC:	Windows XP (SP2) - Latest Windows (64-bit)
Mac:	OS X Lion - Latest Mac OS running Parallels

Custom wavelength combinations available.

* Material dependent

[1] 1σ of 100 measurements of 500 nm SiO_2-on-Si. Average of 1σ over 20 successive days.

[2] 2σ of daily average of 100 measurements of 500 nm SiO2-on-Si over 20 successive days.

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