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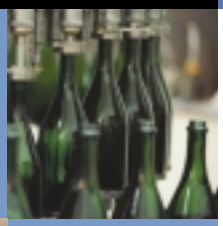
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Find the *Thermo / Milton Roy Spectronic Genesys 5* at our website: *Click HERE*

Spectronic GENESYS 2 and Spectronic GENESYS 5 UV-Visible Spectrophotometers













Versatile UV-Vis for multiple laboratory applications

Spectronic™ GENESYS™ spectrophotometers from Thermo Electron Corporation are ideal for busy laboratories that need fast, accurate quantitative measurements. Whether your application is research, QC, biotechnology or water, Spectronic GENESYS systems offer the versatility, ease-of-use and high-quality performance to meet your laboratory needs.

When high sample throughput and reliability are critical, count on Spectronic GENESYS. This system will prove to be an indispensable tool for increasing productivity in your lab. With minimal training and set up, you are ready to go. Pre-programmed tests allow you to quickly get the answers you need – and results you can trust. Even with first-time users, you are ensured that your test is being run correctly. In addition, the ability to print out your results with instrument parameters allows you to comply with regulatory requirements.

Get the System You Need, for Today and Tomorrow

Spectronic GENESYS spectrophotometers will run tests that cover a wide range of applications. The system is available in two models to suit your laboratory requirements. The Spectronic GENESYS 5 is the ideal system to handle your daily analyses such as concentration, rate measurements, and survey scans. For advanced capabilities and higher performance, choose Spectronic GENESYS 2. This system offers greater scanning features and the ability to perform more complex data manipulations, which is useful for applications such as advanced kinetics studies and quantification of your scans. Both systems include an automatic 8-position sample holder as standard. Or you can expand the sample handling of your Spectronic GENESYS with an accessory, and you have a cost-effective solution to fit your application and your budget.

Get the Whole Picture

Spectronic GENESYS instruments have a backlit, LCD screen which displays test parameters, easy-to-read instrument status icons, and test results in tabular or graphical format. The screen gives details that analog and one-line digital displays cannot provide. The color display of the Spectronic GENESYS 2 further enhances data presentation.

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Control Made Easy

The Spectronic GENESYS is simple to operate. Keypad entries and parameter limits are displayed on the screen as the parameter is being edited, thus reducing the chance of error. Four SoftKeys™ simplify the instrument's operation and provide maximum versatility for increased productivity. The SoftKeys have specific functions depending on the measurement type, application program, or parameter selected.

Automated Analysis of Multiple Samples

Spectronic GENESYS systems improve lab productivity by including an automated, 8-position cell holder which accepts square cuvettes or 10 mm test tubes. After samples are loaded, they are automatically moved into position for measurement. Results can be printed on the optional internal graphics printer, an external printer, or saved to a Memory SoftCard for future reference.

This snap-in, 8-position cell holder is easily removed to accommodate other accessories including longpath cell holders, filter holders, sipper and temperature-controlled accessories.



Flexible, removable cell holder saves time

Spectronic GENESYS Advantages

- Split-beam optical system for signal stability and strength
- 8-position cell holder with automatic alignment is ideal for microcells
- Large sample compartment allows for maximum flexibility in sample-handling
- 5 nm spectral bandwidth for high-energy, reduced noise readings (Spectronic GENESYS 5)
- 2 nm spectral bandwidth assures high resolution of spectra (Spectronic GENESYS 2)
- 6" monochrome LCD screen displays results, operating instructions, parameters, and instrument status (Spectronic GENESYS 5)
- Full-color, 6" LCD screen enables differentiation of multiple scans, and indicates function key options and cell position (Spectronic GENESYS 2)
- Simplified operation with SoftKeys
- Keypad with touch and tone entry confirmation
- SoftCards for application programs, and data and set-up storage; operates faster than a hard disk drive
- Space-saving convenience of optional internal graphics printer
- Icons display instrument status

SoftCards Help You Do More

Optional SoftCards are an easy, cost-effective way to add measurement capabilities to your instrument. The "Program" SoftCard allows you to perform more complex measurements and to create your specific programs. The "Memory" SoftCard allows you to store your user-programmed tests to create a system that meets your specific needs. This is a valuable option for budget-conscious labs with multiple users on the same system. You can customize your SoftCard with your specific methodologies, and you can protect your programs and eliminate the worry of accidental erasure or alteration. In addition, the Memory SoftCards give you the same flexibility in data storage as floppy disks, and are more durable than floppy disks.

Program Software

Application I SoftCard contains:

- Standard Curve
- Simple Kinetics
- Absorbance Ratio
- Survey Scan
- Area-under-a-Curve
- 3-point Net Absorbance

Application II SoftCard contains:

All Application I programs, plus:

- Advanced Kinetics
- Multiple Wavelength
- Absorbance Difference

Performance Validation SoftCard

The Performance Validation SoftCard runs a range of instrument diagnostics tests and logs the results on a Memory SoftCard. It includes checks for wavelength accuracy, noise, stray radiant energy, 0% transmission, photometric linearity, photometric accuracy, and diagnostic tests for output devices. Together with the Spectronic Standards Kit, this card can be an important tool for ISO or cGMP documentation.

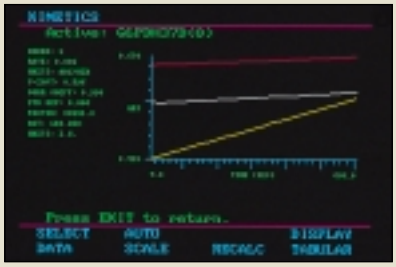
Biochemistry SoftCard

The Biochemistry SoftCard performs a variety of routine measurements on protein and nucleic acid samples such as:

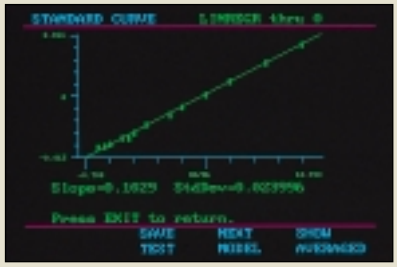
- Standard curves for commonly used protein methods
- Nucleic acid concentration and purity measurements
- Direct UV methods
- Monitoring fractions from chromatography columns

Programs can be set up for automatic data collection as well as for the automatic printout of all instrument parameters and collected data, with or without graphs.

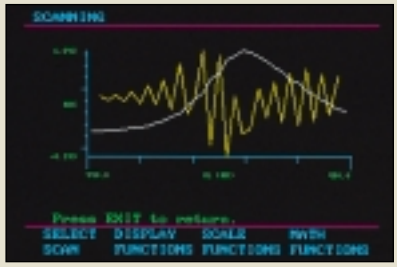
Color Graphics and Analysis Screens *(available on Spectronic GENESYS 2 only)*



Advanced Kinetics: Kinetics data showing three overlaid glucose-6-phosphate dehydrogenase assays (up to 8 can be displayed). First- or second-order fit can be calculated.



Standard Curve: Second-order standard curve showing equation constants and curve fit parameters.



Derivative Scans: Holmium oxide absorbance scan overlaid with its second derivative plot.

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SoftDrink SoftCard

The SoftDrink SoftCard contains four time-saving tests that are run on a routine basis in the beverage industry: phosphate assay, beverage color, sugar color, and water analysis. All programs include a statistics mode which allows the user to collect data on a specific product or bottling line.

Advanced Scanning SoftCard

The Advanced Scanning Softcard is standard with and only available for the Spectronic GENESYS 2.

Memory SoftCards

Memory SoftCards increase productivity by storing test parameters, sample data, test results, and date/time information. The Memory SoftCards are available in 128K and 1MB capacities. To organize test results, files can be transferred from one SoftCard to another. This can save time and eliminate the need for manual record-keeping. Files can be output directly to a variety of printers or plotters, converted to ASCII or Lotus® format, or transferred to a computer for further analysis or long term archiving.



Powerful Data Acquisition

Scan data can be collected in absorbance, % transmittance, or real-time derivative modes. The ability to perform repeat scans is available. Data can be displayed in graphical or tabular format. A cursor is used to identify coordinate values.

Color Data Display

Up to eight scans can be displayed in full color for absorbance, %T, derivative, or log A. Colors provide easy differentiation for overlaid scans.

Flexible Data Processing

Spectronic GENESYS 2 provides a host of data processing tools to accommodate your sampling needs and to achieve accurate results. These include peak and valley identification, log A curves, A to %T conversion, and 3-point net absorbance, which measures the peak height relative to the calculated baseline. Area-under-the-peak can be measured either to the tangent or to the wavelength axis, which is useful for analyzing chromatographic samples. Post-processing of the first, second, and fourth derivative is available, as well as smoothing, peak/valley detection with selectable sensitivity, and arithmetic functions using constants or other spectra.

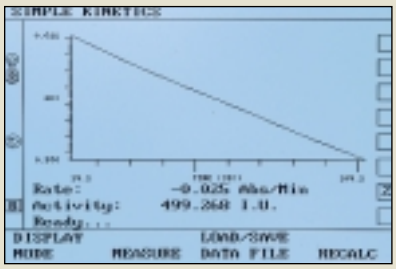
Enhance Results with Sampling Accessories

Customize your Spectronic GENESYS system with a sampling or data-handling accessory to match your application needs. A complete range of accessories is available, including manual cell holders, sippers, and thermally controlled systems. Contact your local sales engineer for information on the right accessory to increase performance and enhance your results.

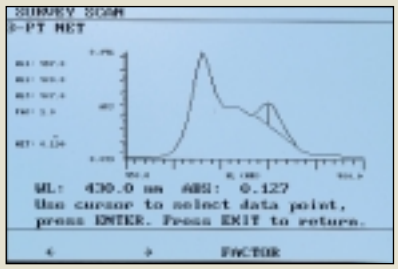


Peristaltic Pump and One-Position Thermo-electric Cell Holder accessories shown above.

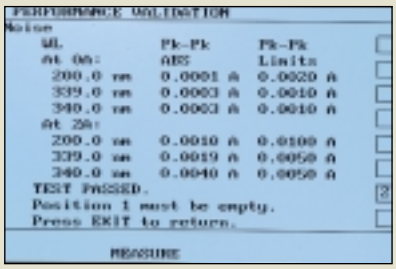
Typical Screens *(available on both Spectronic GENESYS 2 and Spectronic GENESYS 5 spectrophotometers)*



Simple Kinetics: Lactate dehydrogenase determination showing serum LD activity in units/L.



3-Point Net Absorbance: Background-corrected absorbance peak showing calculated baseline.



Performance Validation: Noise test at 0 A and 2 A showing peak-to-peak values at 200, 339, and 340 nm.

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Product Specifications

	Spectronic GENESYS 5 Part Number 336001 Series	Spectronic GENESYS 2 Part Number 336002 Series
Spectral Slitwidth	5 nm	2 nm
Optical System	Split-beam, dual detectors	Split-beam, dual detectors
Wavelength		
Range	200 to 1100 nm	200 to 1100 nm
Accuracy	± 1 nm	± 1 nm
Precision	± 0.5 nm (ASTM method #E275-83)	± 0.5 nm (ASTM method #E275-83)
Display	Graphic, backlit monochrome LCD screen	Graphic, backlit color LCD screen
Display Range	– 0.3 to 4.0 A	– 0.3 to 4.0 A
Photometric		
Readout	Absorbance and % Transmittance	Absorbance and % Transmittance
Range	– 0.1 to 3.0 A; 0 to 125 %T	– 0.1 to 3.0 A; 0 to 125 %T
Accuracy*	± 0.003 A from 0 to 0.3 A ± 1% of reading from 0.3 to 2 A ± 2% of reading from 2A to 3 A	± 0.003 A from 0 to 0.3 A ± 1% of reading from 0.3 to 2 A ± 2% of reading from 2 A to 3 A
Noise	± 0.001 A at 220 and 340 nm at 0 A	± 0.001 A at 220 nm at 0 A, ± 0.0015 A at 340 nm at 0 A
Drift	± 0.002 A/hour at 340 nm	± 0.002 A/hour at 340 nm
Stray Radiant Energy**	0.05%T at 220 nm and 340 nm	0.05%T at 220 nm and 340 nm
Scan Speeds	300 nm/min (1 pt/1 nm), or 900 nm/min (1 pt/3 nm)	SLOW: up to 200 nm/min (1 pt/0.3 nm) MEDIUM: up to 600 nm/min (1 pt/1 nm) FAST: up to 1800 nm/min (1 pt/3 nm) TURBO: up to 2400 nm/min (1 pt/6 nm)
Slew Speed	27,000 nm/min (across full wavelength range)	27,000 nm/min (across full wavelength range)
Standard Instrument Capabilities	Absorbance, % Transmittance, and Concentration (with factor or standard), File Manager, Program Manager, output to internal printer, Epson or HP Laserjet printer, HPGL plotters, or computer in ASCII or Lotus format. Application programs include: Standard curve, absorbance ratio, area-under-a-curve, 3-point net, simple kinetics, survey scan.	Absorbance, % Transmittance, and Concentration, File Manager, Program Manager, output to internal printer, Epson or HP Laserjet printer, HPGL plotters, or computer in ASCII or Lotus format. Advanced Scanning program includes: Data Acquisition: baseline collection, scanning at slow, medium, fast, and turbo speeds, real-time derivative scanning, repeat scanning. Color Display of up to 8 scans, tabular display of data. Data Processing: Peak & valley labeling, log A, A to %T, derivative, 3-point net, area-under-a-curve, add/subtract constants/scans, spectrum smoothing.
Standard Cell Holder	8-position, instrument controlled	8-position, instrument controlled
Standard Interfaces	RS-232C and Centronics ports	RS-232C and Centronics ports
Power Requirements	115 V, 50/60 Hz; 230 V, 50/60 Hz	115 V, 50/60 Hz; 230 V, 50/60 Hz
Dimensions	47.9 cm (18.9") (w) x 55.5 cm (22.3") (d) x 21.0 cm (8.3") (h)	47.9 cm (18.9") (w) x 55.5 cm (22.3") (d) x 21.0 cm (8.3") (h)
Weight	12.3 kg (27 lbs)	12.3 kg (27 lbs)

** Measured using NIST 930D filters*

*** 220 nm, 340 nm, and 400 nm measurements with Spectronic Standards (#333150); 220 nm measurement with deuterium lamp; 340 nm and 400 nm measurements with tungsten-halogen lamp*

ISO 9000

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