

The Thermo Scientific SpectraSYSTEM™ UV1000 and UV2000 Detectors continue to be the industry's workhorses for QA/QC applications. For over 20 years they have been the benchmark of sensitivity, linearity, and reliability in UV absorbance detection for HPLC.

SpectraSYSTEM Detectors

UV/Vis Detectors with wide applications versatility

- Dual-wavelength programming with superior performance
- Programmable wavelength changes
- Automatic lamp startup and shutdown
- Complete ROHS compliance
- Interchangeable flowcells for applications flexibility
- Optimum sensitivity and selectivity with Thermo Scientific columns

UV1000 Programmable Detector

The Thermo Scientific UV1000 is an easy-to-use programmable wavelength detector designed for routine applications. Wavelength programming enhances the sensitivity and/or selectivity for different compounds in a separation. The automatic lamp startup and shutdown feature prolongs lamp life and reduces warm-up time.

Programming is accomplished using a simple keypad and display. The 'Status Lock' feature prevents accidental changes in parameters while the detector is running.



UV2000 Dual-wavelength Detector

The Thermo Scientific SpectraSYSTEM UV2000 detector provides all the performance and features needed for method development or routine analysis. The signal-to-noise performance in dual-wavelength mode is excellent, in fact only surpassed by higher priced PDA detectors.

A high-speed stepper motor allows you to collect up to twenty spectra in real time without stopping the flow. A unique feature lets you display the λ Max, λ MaxAU and the λ Min automatically in real time. The detector also displays complete spectral absorbance data on the LCD.

Methods Development

The 'Develop File' enables you to increment wavelength changes automatically over a selected wavelength range and interval. Programmed wavelength changes can then be performed to optimize sensitivity, selectivity, and quantitation of each peak of interest.

Six user files, a queue for file linking, and automatic lamp startup and shutdown enhance operation.

Applications Flexibility

A wide variety of cell options is available for all applications. Analytical, micro, semi-prep, prep, and inert/bio flowcells are offered for LC. An on-column cell for CE and SFC uses a ball lens to focus the light beam for increased sensitivity. A cuvette holder converts the detector into a spectrophotometer, making fixed wavelength and scanning absorbance measurements accurate and reliable.

Flowcells are placed at the end of the optical path. They mount externally to the monochromator and are pre-aligned for easy exchange with no tools required.

ChromQuest™ Chromatography Data System

Thermo Scientific ChromQuest offers maximum flexibility and efficiency in setting up and maintaining the performance of chromatography instruments. ChromQuest protects your results by ensuring data traceability and integrity with enhanced security features and electronic documentation. Sophisticated analytical tools facilitate high sample throughput and powerful data processing for liquid chromatography. ChromQuest maximizes laboratory efficiency with project management for information storage and transfer. Along with accelerating data analysis and results generation, ChromQuest uses robust integration, flexible calibration routines, and advanced spectral analysis tools that help avoid the unexpected.

Certification and Qualification Services

Every pump is tested at the factory prior to shipment to ensure that it meets or exceeds performance specifications. A Declaration of Conformity (DC) accompanies each pump and documents test results. On-site field testing (optional) qualifies system performance.

Specifications

Optical Design

Concave holographic grating monochromator, with dual-beam optics; pre-aligned, front-mounted lamps and flowcell

Noise

$< \pm 1.0 \times 10^{-5}$ AU @ 254 nm, 1.0 sec rise time, single-wavelength mode

Drift

$< 2 \times 10^{-4}$ AU/hour after warm-up @ 254 nm

Wavelength Range

D2 LAMP

190–380 nm (UV1000)

190–365 nm (UV2000)

W LAMP

366 to 800 nm

Wavelength Accuracy

± 1.0 nm

Wavelength Precision

± 0.1 nm

Spectral Bandwidth

6 nm

Absorbance Range

0.0005–3.0 AUFS

Absorbance Linearity

Better than 5% to 2.0 AU @ 257 nm

Lamps

Deuterium and Tungsten (Tungsten optional on UV1000)

Analog Outputs

UV1000

1 unrange integrator output (1.0 AU/V);
1 range-selectable over entire absorbance range

UV2000

2 outputs, range-selectable over entire absorbance range

Method Files

Protected in non-volatile memory

Communications

Remote Inputs

Run, Stop and Zero

Outputs

Ready and Accessory Relay

Ambient Environment

10–40 °C, 5–95% relative humidity (non-condensing)

Dimensions

37 × 15 × 47 cm (H × W × D)

Weight

18 kg

Power Requirements

100/120/220/240 VAC nominal;
200 VA; 50 to 60 Hz

Product Certification

TUV CUS

TUV CE Mark

FCC (EMI)

**Noise and drift specification determined using the standard 10 mm analytical flowcell.*

Ordering Information

Part Number	Description
60053-60141	UV1000 10 mm Flow Cell
60053-60143	UV2000 10 mm Flow Cell
9550-0234S	10 mm 15 µL Flow Cell
9551-0023	D2 Lamp
9551-0022	W Lamp
60053-60138	SN4000 System Controller
CHROM-64510	ChromQuest 5.0 Full Install
A5765-073	SpectraSYSTEM Accessory Rack

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