

SPECTRO™ UV 3000 PMT



Specifications

Model	SPECTRO™ UV 3000 PMT
Optical System	Double beam quartz coated optics
Wavelength Range	190-900nm, Czerny-Turner mounting, 1200 lines/mm
Spectral Bandwidth (variable)	0.1 to 5.0nm (Holographic grating)
Wavelength Accuracy	±0.2nm (0.1nm if required)
Wavelength Resolution	0.01nm
Wavelength Reproducibility	±0.15nm
Wavelength Repeatability	0.01- 0.05 nm
Photometric Accuracy	±0.0015 Abs (0.5Abs) ±0.003 Abs (1 Abs)
Photometric Repeatability	±0.0005 Abs (0 to 0.5 Abs) ±0.0005 Abs (0 to 1 Abs)
Photometric Reproducibility	±0.001 Abs (0.5Abs) ±0.001 Abs (1 Abs)
Photometric mode	Absorbance, Transmittance, Reflectance, Energy, Concentration
Stray Light	<0.0025%T (NaI, 220nm)
Baseline Flatness	+0.0003Abs (200-850 nm)
Stability	0.0003A/h (at 500nm, after warming up)
Detector	photomultiplier
Light Source	tungsten halogen lamp and deuterium lamp (Xenon flash lamp)
Power	AC : 220V/50Hz, 400W
Dimensions	670 x 470 x 210 mm
Weight	45kg
Photometric Range	Abs:-8 to +8,%T;0 to 400%
Photometric Noise	0.00001 Abs
Scanning Speed	1.5 to 4500 nm/min
Transmittance, Reflectance	0.0 - 999.9%
Data Storage	up to 100 sets of standard sample
Output	USB/Bi-directional RS232C

Features

Double beam (sealed optics) fully automated scanning system.
PC control, rich analytical software.

Wavelength Scan :

Scanning sample spectra in any range within 190-900nm.

Three scanning speed; Fast, Middle and Slow selectable, with min. sampling interval of 0.04nm. Data processing function of derivative spectra and smoothing, peak picking, spectrum expansion and superposition and other arithmetic calculation.

auto position adjustment built - in in our system for lamp sources.

Fixed wavelength measurement : :

10 wavelengths can be set at the same time Arithmetic calculation between wavelengtha can be done.

Quantitation :

Standard factor method, standard contrast method :

2-wavelength method, and 3 - Wavelength method etc.

Kinetic Measurement:

Wavelengths and sampling interval selectable, activity, calculation available.

Wavelength Slew Rate is Variable upto 12000nm/min

Drift: 0.0003 Abs/h

Program Methods: Instrument possess pre-program methods for soil/water quality Analysis and facility to program new methods

UV SPECTRA™ Control Software

The Analytical windows based PC application software UV/Vis analyst takes the best features of the stand alone version plus more powerful data processing, expanded data collection and storage capability. It comes standard with Analytical PC models and is optional to stand alone models.

The PC application software offers:

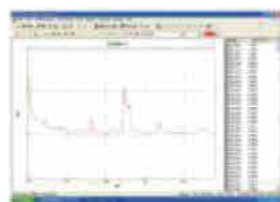
- | | |
|---------------------------------------|---------------------|
| 1. Photometric Mode | 5. DNA/Protein |
| 2. Quantitative tast (standard curve) | 6. Multi-Wavelength |
| 3. Wavelength Scan | 7. System Utility |
| 4. Kinetics | |



Use up to 20 standards to establish standard curve. Four methods for fitting a curve:

1. Linear fit
2. Linear through zero
3. Square fit
4. Cubic fit

Quantitative tast (standard curve)



wavelength scan

Automatically record peaks and valleys. The quantity of channels is unlimited. You can simultaneously store as many as desired. Post run manipulation and processing includes:

1. Re-Scaling axes, curve
2. 1st to 4th derivative
3. Smoothing, combination, zooming, overlap.



KINETICS (ABS VS. TIME)

The kinetic mode may be used for time course scanning or reaction rate calculations. Abs vs. Time graphs are displayed on the screen in real time. Waiting time measurement time and intervals may be entered.

Post run manipulation includes re scaling, curve tracking and selection of the part of the curve required for the rate calculation.

Rate is calculated using a linear regression algorithm before multiplying by the enterd factor.



DNA / PROTEIN

Concentration and DNA purity are quickly and easily calculated: absorbance ratios 260nm/280nm with optional subtracted absorbance at 320nm

DNA Concentration = $62.9'' A_{260} - 36.0'' A_{280}$

Protein Concentration = $1552'' A_{260} - 757.3'' A_{280}$

Other wavelengths and factors may be entered.



Multi-Wavelength

Up to 20 wavelengths can be selected and multiple samples can be measured. (Auto cell changer is required to run multiple samples automatically)

Upgradation

DR (Diffusion Reflectance) for measurement of soild sample

Optional Accessories



4-Cell Holder For 10mm Swu.Cuvette



4-Cell Holder For 50mm Swu.Cuvette



4-Cell Holder For 100mm Swu.Cuvette



Cylindrical Cell Holder



Water jacketed Cell Holder



Micro Cell Holder



Test Tube Holder



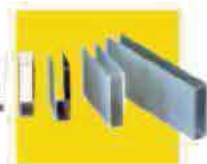
8 - Position Auto Cell Changer



Solid Sample Holder (single Cell)



10mm Water jacketed 4 Cell Holder



Square Cuvettes Glass 10mm, 20mm, 30mm, 50mm, 100mm, Square Cuvettes Quarts 10mm, 20mm, 30mm, 50mm, 100mm



Micro Cell Quartz 100ul, 200ul, 500ul



Self Masking Cont. Flow Through G.cell 5mm, 10mm, 20mm, 30mm, Self Masking Cont. Flow Through Q.cell 5mm, 10mm, 20mm, 30mm



Halogen Lamp 6V10w 12V20w



12V20W HALOGEN LAMP 6V10W, 12V20W



Constant temperature Sipper System



Constant temperature System



Sipper System



Thermal Printer

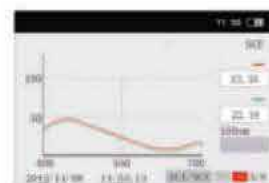


Deuterium Lamp

Color Spectro CS 3600

High performance-price ratio among similar international products;

- CS 3600 integrates multiple innovative characteristics, and extends the boundary of on-site quality control during production:



- It can be applied to laboratories, factories and on-site operations, and can achieve the best color management across all application fields' quality control;
- Allows medium and small companies to obtain high performance color management system with relatively low price;
- The software contains all necessary color equations, standard light sources, and a large number of standards for specific industries and applications;
- Operation system supports both English and Chinese Interfaces, and CHN Spec offers to design the interface in other languages based on the needs of our customers;

- Allows quick comparison between two color samples. and shows clear results in numbers or in graphs.

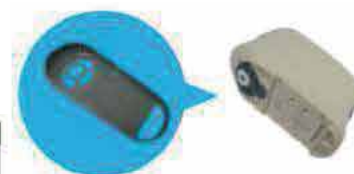
Professional design and powerful instrument functions



- Professional horizontal design, and it does not have any moving parts. which avoids the shaking of the instrument during measurement process. This makes the measurement more accurate;

- PC software for easy measurement data management;

- Pre-locating panel design for easy instrument calibration;



- Can measure both SCI and SCE at the same time.

- Large data storage space: can store up to 100 sets of standard samples. with up to 200 measurement records for each standard sample;

Specifications

Model	CS-3600
illumination/observation system	D/8 (diffused light, 8" reception, SCE/SCI)
Sensor	Photoelectric diode array
Integrating sphere diameter	40mm
Wavelength range	400nm - 700nm
Wavelength interval	10nm
Half bandwidth	≤14nm
Range of reflectance	0-175%, resolution 0.1%
Light source	Composite LEDs
Measuring time	About 1.5 seconds
Measuring caliber	8mm
Repeatability	The standard deviation within ΔE* ab 0.08, the standard deviation within 0.2%
Inter instrument agreement	Within ΔE*ab0.4 / standard color boards.
Languages	English (optional language of your choice)
Standard observer	2° and 10°
Observation light source	A, C, D50, D65, F2, F6, F7, F8, F10, F11, F12 (can select two light sources for display at the same time)
Displayed contents	Spectral data, spectral chart chromatic values chromatic aberration value, pass / fail color simulation.
color space / standards	L* a* b*, L*C*h, ΔE*ab (CIE 1976) ΔEch ΔE' 94(CIE1994) ΔE00/CIE2000), CMC (1.1) CMC (2.1) Yxy, Xyz, WI (ASTM E 313/CIE YI (ASTM E313/ ASTM D1925), ISQ brightness (iso 2470), Density status A/T, CIE00, WI/Tint
Data storage	100 x 200 (100 sets of standard samples, up to 200 measurement records under each standard sample)
Port	USB
Power source	Detachable lithium-ion battery pack, DC adapter
Operation temperature and humidity range	5 to 40°C, relative humidity 80% or less (at 35°C) with no condensation
Storage temperature and humidity range	0 to 40°C, relative humidity 80% or less (at 35°C) with no condensation
Display	2.8-inch TFT color screen
Accessories	Black and white calibration box, pre-locating panel
Optional accessories	Mini-printer
UV fluorescent	Without UV

►►► Regulatory compliances



►►► Corporate Social Responsibility



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1. Research & Innovation Scientist's awards / QC Professional Award : Quality life is possible by innovation only and the innovation is possible by research only, hence ANALYTICAL FOUNDATION is committed to identify such personalities for their contributions across various fields of Science and Technology and awarding them yearly. To participate for award, send us your details of research / testing / publication at Info@analyticalfoundation.org

2. Improving quality of life by offering YOGA Training courses, Work shops / Seminars etc.

3. ANALYTICAL FOUNDATION aims to DETOXYFY human minds, souls and body by means of yoga, Meditation, Ayurveda, Health Care, Awards, Media, Events, Comps etc.

►►► Reach us @



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