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Analytical Instruments for Science

T92+

UV-VIS SPECTROPHOTOMETER

The T92+ is a high performance double beam spectrophotometer with a variable spectral bandwidth from 0.1-5nm, selected by a continuous variable slit.

The Czerny-Turner monochromator with a holographic grating keeps stray light to a minimum and offers excellent optical resolution. The use of a photo-multiplier tube as a detector offers exceptional sensitivity.

The T92+'s true double beam optical system coupled with an efficient and well proven electronic control system ensures high stability and low background noise.

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FEATURES & FUNCTIONS

- Photomultiplier tube detection provides exceptional sensitivity.
- Wavelength accuracy ±0.3nm (Automatic Wavelength Correction).
- User selectable spectral bandwidth between 0.1 - 5nm.
- User friendly design allows easy light source replacement and routine maintenance.
- Sample compartment design enables use of a wide range of optional accessories.
- UV-WIN software offers many operational and data processing capabilities and is supplied as standard with the T92+.

The instrument can be fitted with an embedded PC as an option for extensive local functionality via the UVWin Software.

EMBEDDED PC SPECIFICATION (optional)

- CPU - Intel® Atom™ processor Z510 1.1 GHz and Z530 1.6 GHz onboard with FSB 400/533 MHz
- Hard Disk – 250GB, Memory – 2GB DDR2
- USB – 2 x External USB
- Ethernet – 1 port as 10/100/1000Mbps supports Wake-on-LAN, RPL/PXE Boot ROM with Realtek RTL8111B
- 19" LCD Display – VGA Output with Intel® GMA 500 Graphics Core
- Peripheral – Supplied with USB mini Keyboard Mouse combination.

OPTICAL SYSTEM & COMPONENTS

The T92+ features an advanced continuous variable bandwidth feature making it the instrument of choice for applications with a demand for precise and accurate control of wavelength resolution. This feature allows the user to specify exactly what bandpass is required in the range of 0.1-5nm.

The double beam optical design combined with a high specification holographic grating gives excellent wavelength separation allowing the user to measure close adjacent wavelengths with excellent sensitivity.

The modular design of the sample compartment allows for ease of use of a wide range of optional accessories ensuring accurate analysis of various sample types including liquids, thin films and powders.

The user friendly design of the lamp compartment allows easy replacement and simplified routine maintenance of the Deuterium and Tungsten lamps.

The optional Embedded PC in the T92+ provides, full instrument control, data acquisition and processing of measurement data. This is made possible by means of the UV-Win software.

Specifications

Specifications	T92+
Optical System	Double beam
Scan Speed	Selectable
Wavelength Range	190 - 900nm
Wavelength Accuracy	± 0.3nm
Wavelength Reproducibility	≤ 0.1nm
Spectral Bandwidth	Continuous slit 0.1 - 5.0nm with 0.1nm interval
Photometric Mode	Transmittance, Absorbance, Energy Concentration, All Using UVWin Software
Photometric Range	-4.0 - 4.0Abs
Photometric Accuracy	0.002A (0 - 0.5A), 0.004A (0.5 - 1.0A), 0.3%T (0 - 100%T)
Photometric Reproducibility	0.001A (0 - 0.5A)
Photometric Noise	0.0004A (500nm) 30min warm-up
Baseline Flatness	0.001A (200 - 850nm)
Baseline Stability	0.0008A/h (500nm, 0Abs), 2hr warm-up
Stray light	≤ 0.01 %T (220nm NaI, 340nm $NaNO_2$)
Standard Functionality	No stand alone function
Cell Holder	Fixed position sample and reference
Detector	Photo multiplier tube
Light Source	Tungsten Halogen and Deuterium arc lamps
Display	No display
Printer	Not available
PC Interface	RS232/USB
Software Support	UV Win
Power Supply	Switchable 120 - 230VAC 50 - 60Hz
Weight	43Kg
Dimensions (Width, Depth, Height)	545mm, 580mm, 270mm