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Analytical Instruments for Science

T60

UV-VIS SPECTROPHOTOMETER

The T60 is a high performance compact split beam spectrophotometer with a fixed 2nm spectral bandwidth.

The T60 range consists of two models:

T60U (UV-Visible) operating within a wavelength range of 190-1100nm. T60V (Visible) operating within a wavelength range of 325-1100nm.

The instrument has a switched mode power supply accepting voltages in the range of 95-240V AC and supplied with either universal pathlength 5 cell changer or fixed path length 8 cell changer as standard.

The T60 delivers the functionality and accuracy of an advanced instrument at an affordable price.

Fixed pathlength 8-cell changer

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FEATURES & FUNCTIONS

- High performance fixed 2nm spectral bandwidth.
- Low stray light 0.05%T (T60U).
- Wavelength accuracy +/- 1nm (T60U).
- Holographic blazed grating 1200lines/mm.
- Local control software for photometric fixed wavelength measurement.
- Easily upgraded to include quantitative analysis, multi wavelength spectrum & kinetics.
- Built in cell holder storage.
- Robust modular design with a small footprint.
- Can be used with UV-WIN software (optional).

OPTICAL SYSTEM & COMPONENTS

High quality optical components ensure reliable analytical data with low stray light achieved using very low noise electronic circuits.

Deuterium and tungsten light sources deliver superior stability across the full wavelength range. Both types of lamp have self timers and are inexpensive and easy to replace when required.

The monochromator is completely sealed and the optical surfaces can be easily cleaned to maintain optimum reflectivity over the lifetime of the instrument.

A maintenance free high resolution direct stepper drive positions the grating precisely, which ensures reproducible wavelength scanning at different scan speeds, thus negating any wavelength peak shift.

The spectrophotometer shell is made from an environmentally friendly non corrosive material and a simple retaining mechanism on the base allows easy access for air filter changes and routine maintenance.

Cell holder

Program card

Specifications

	T60U (UV-Visible)	T60V (Visible)
Optical system	Split beam ratio	Split beam ratio
Scan speed	Selectable	Selectable
Wavelength range	190 - 1100nm	325 - 1100nm
Wavelength accuracy	±1nm	± 2nm
Wavelength reproducibility	≤ 0.2nm	≤ 0.4nm
Spectral bandwidth	2nm	2nm
Photometric mode	Transmittance, Absorbance, Energy	Transmittance, Absorbance, Concentration
Photometric range	-0.3 - 3.0Abs	-0.3 - 3.0Abs
Photometric accuracy	0.002A (0 - 0.5A), 0.004A (0.5 - 1A) 0.3%T (0 - 100%T)	0.002A (0 - 0.5A), 0.004A (0.5 - 1A) 0.3%T (0 - 100%T)
Photometric reproducibility	0.001A (0 - 0.5A), 0.002A (0.5 - 1A) 0.15%T (0 - 100%T)	0.001A (0 - 0.5A), 0.002A (0.5 -1A) 0.15%T (0 - 100%T)
Photometric noise	0.001A (500nm) 30min warm-up	0.001A (500nm) 30min warm-up
Baseline flatness	0.002A (20 0 - 1000nm)	0.002A (32 5 - 1000nm)
Baseline stability	0.001A/h (500nm,0Abs), 2hr warm-up	0.002A/h (500nm,0Abs), 2hr warm-up
Stray light	≤ 0.05%T (220nm Nal, 340nm $NaNO_2$)	≤ 1.0%T (340nm $NaNO_2$)
Standard Functionality	Photometric Measurement (Quantitative, Multi-wavelength, Spectrum and Kinetic measurements with program cards)	Photometric & Quantitative Measurement
Detector	Silicon photo diode	Silicon photo diode
Light source	Tungsten Halogen and Deuterium arc lamps	Tungsten Halogen
Display	Digital LCD display	Digital LCD Display
Printer	Mini Printer	Mini Printer
PC Interface	RS232	RS232
Software support	Local and UV-Win	Local and UV-Win
Power supply	Switch mode 95 - 250VAC 50 - 60Hz	Switch mode 95 - 250VAC 50 - 60Hz
Weight	11kg	11kg
Dimensions (Width, Depth, Height)	476(mm), 362(mm), 225(mm)	476(mm), 362(mm), 225(mm)