JENWAY

6850 Double Beam Spectrophotometer

The new 6850 is a UV/visible double beam spectrophotometer with a variable spectral bandwidth. This spectrophotometer has an integrated user interface for local control and ease of navigation.

The 6850 spectrophotometer is ideal for quality control, general research, pharmaceutical, biochemical and clinical laboratory applications.

Introducing the 6850

The new 6850 introduces the first double beam spectrophotometer with a variable spectral bandwidth into the Jenway range. The highly stable optics and two detectors measure the sample and reference simultaneously optimising measurement accuracy. The 6850 has measurement modes for photometrics, concentration, multi-wavelength, spectrum scanning, kinetics, quantitation, DNA and protein analysis. Up to 10 wavelengths can be measured in the multi-wavelength measurement mode and quantitation curves can be created by measuring up to 10 standards at 3 different wavelengths.

Key Features

- Double beam spectrophotometer with highly stable optics
- Integrated user interface for local control
- Variable spectral bandwidth 0.5, 1, 2, 4 and 5nm
- Conforms to European Pharmacopeia requirements
- Jenway Prism PC software included as standard
- Extensive range of accessories available

Improved Optics

Model 6850 covers the UV/visible wavelength range from 190 to 1100nm, with a variable spectral bandwidth, ranging from 5nm down to 0.5nm, using tungsten halogen and deuterium light sources. The range of bandwidths available allows a balance between resolution, accuracy and data precision to be maximised depending on the application; therefore providing a flexible platform to conform to multiple regulatory agencies for a variety of applications, all with one spectrophotometer.

Model 6850 has three scan speeds available enabling scan speeds of 100 to 2000nm/min to be achieved. With wavelength scan intervals of 0.1, 0.2, 0.5, 1, 2 or 5nm the 6850 can be configured to meet your exact requirements.

Instrument Design

Model 6850 has an integrated user interface providing local control of the spectrophotometer. With no PC required this saves expense and valuable bench space. The large graphical display is easy to read and enables more information to be displayed including spectrum and kinetics curves. The user interface can be navigated using soft key navigation, arrow keys or shortcut keys.

This spectrophotometer utilises a research grade monochromator for excellent energy throughput and a silicone photodiode detector. All of this comes packaged in a small footprint double beam spectrophotometer whilst still offering a large sample chamber that enables an 8 position cuvette changer to be fitted.

Prism Key Features

- All spectrophotometer functions can be controlled by PC
- Additional functionality
- Increased results storage
- Extensive post-measurement tools
- Easy to export data
- Windows compatible

Introducing Jenway Prism PC Software

Jenway Prism PC software is supplied as standard and offers additional functionality, extensive post-measurement tools, unlimited results saving and easy export of data.

The Prism PC software can be used to fully control the functionality of the spectrophotometer. The measurement modes available in Prism mirror those of the instrument with measurement modes for photometrics, concentration, multi-wavelength, spectrum scanning, kinetics, quantitation, DNA and protein analysis.

Prism has pre-loaded methods for DNA analysis including 260/280 and 260/230 ratios with 320nm correction. Up to 20 wavelengths can be measured simultaneously in the multi-wavelength measurement mode and quantitation curves can be created by measuring up to 200 standards.

Accessories

To further compliment the 6850 Jenway offer an extensive range of easy to fit accessories. To enhance productivity and increase throughput rates there is an automatic 8 cell changer. **Part code: 685 401**. For medical and biochemical application where sample volumes are strictly limited a micro-cuvette holder is available. **Part code: 685 304**

For applications where sample temperature is critical, a water heated cuvette holder is available for 10x10mm cuvettes. **Part code: 685 131**. Please note that a water bath and circulator are also required but not supplied.

For applications requiring additional sensitivity where longer path length cuvettes may be required; Jenway offer an adjustable path length cuvette holder which can accept cuvettes with 10, 20, 30, 40, 50 and 100mm path lengths. **Part code: 685 005**. Please note that the 6850 has a single 10x10mm cuvette holder fitted in the reference position therefore it may be necessary to purchase two adjustable path length cuvette holders, one for the sample position and one for the reference position.

Ordering Information

Product Code	Description
685-SC	6850 double beam spectrophotometer
685 204	10x10mm path length cuvette holder
685 131	Water heated 10x10mm single cell holder
685 005	10 to 100mm adjustable path length cuvette holder
685 304	Micro-cuvette holder
685 401	8 position automatic cell changer

The 6850 is supplied fitted with a single 10x10mm cuvette holder in the sample and reference position, instruction manual, power cables, PC software on CD ROM with USB connection cable and dongle, 2 x quartz cuvettes, 4 x glass cuvettes and FREE dust cover.

Technical Specification

Wavelength range	190 to 1100nm	
Wavelength resolution	0.1nm	
Wavelength accuracy	± 0.3nm (at 0.5 and 1nm bandwidth)	± 0.5nm (at 2, 4 and 5nm bandwidth)
Wavelength reproducibility	±0.2nm	
Spectral bandwidth	Variable 0.5, 1, 2, 4, 5nm	
Photometric range	–0.3 to 3.0A 0 to 200%T	
Photometric accuracy	± 0.002A (0-0.5A)	±0.3%T (0-100%T)
Photometric reproducibility	±0.001 Abs (0 to 0.5 Abs)	±0.002 Abs (0.5 to 1.0 Abs)
	0.15%T (0-100%T)	
Resolution	0.1%T, 0.001A	
Stray light	<0.05%T at 220 and 360nm	
Noise	0.0005A	
Stability	± 0.001A/h at 500nm after 15 min warm up	
Multi–wavelength	Up to 10 wavelengths, up to 20 wavelengths with PC software	
Calculations	Ratio, difference, formulae with factors	
Spectrum range	Any range between 190 and 1100nm	
Scan speed	100 to 2000nm/min	
Scan interval	0.1, 0.2, 0.5, 1, 2 or 5nm	
Analysis	Auto peaks and valleys, zoom, Addition, subtraction, peak ratios, smoothing, area under curve, wavelength table, derivatives, overlay with PC software	
Kinetics	Up to 12 hours with time intervals of 0.1, 0.2, 0.5, 1, 2, 5, 10 or 30 seconds	
Analysis	Slope and formula of line of best fit between any two points	
Quantitation points	Up to 3 wavelengths	
Quantitation Calibration	Blank with up to 10 standards or factor	
Concentration range	0–99999	
Calibration	Blank with standards or factor	
DNA	DNA Ratio, concentration, A320 correction.	
Light source	Tungsten halogen and Deuterium lamps	
Lamp changeover	325 to 370nm selectable	
Outputs	USB and parallel	
Operating system:	Windows 2000, XP, Vista, Windows 7	
Electrical supply	120VA, 220/110V, 50/60Hz	
Size (w x d x h)	600 x 450 x 200mm	
Weight	22kg	

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Pricing on any accessories shown can be found by keying the part number into the search box on our website.

The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct.
If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.

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Please contact us if this literature doesn't answer all your questions.