Introducing the 73 series

The four new spectrophotometers in the 73 series range include models 7300 and 7310 which cover the visible region of the spectrum. The 7305 and 7315 models use a flash xenon lamp to extend the wavelength range into the UV region of the spectrum.

The basic models, 7300 and 7305, feature measurement modes for absorbance, % transmittance and concentration. The advanced models, 7310 and 7315, introduce additional measurement modes such as scanning, kinetics and quantitation.

Key features

- 5nm spectral bandwidth
- Absorbance range -0.3 to 2.5 Abs
- Icon driven software
- Results and method saving to USB memory stick (models 7310/7315 only)
- Autologging capabilities
- Free bi-directional PC software
- 3 year warranty including xenon lamp
- Extensive range of accessories

Improved optics

The new 73 series have improved optics resulting in all four models having a narrow spectral bandwidth of 5nm and an absorbance range of -0.3 to 2.5 Abs.

The 7305 and 7315 models use a 'press to read', xenon lamp to give more accurate readings and extend lamp life. The xenon lamp is covered by a three year warranty.

The 7300 and 7310 models have a tungsten halogen lamp with a lamp save feature which enables the lamp to be turned off automatically after periods of inactivity.

Advanced communications

The entire range has been designed with improved communication in mind. All of the units have an RS232 serial port for connection to a PC or a serial printer. All of the models are supplied with free bi-directional PC software, enabling the instrument to be controlled via the PC. The PC software suite provides enhanced post measurement tools and easy exportation of results to Microsoft Excel®.

The 7310 and 7315 models have the additional feature of an easy access USB port on the front of the unit which enables results to be stored directly to a USB memory stick, for easy transfer of data. The advanced models can store up to 240 methods which can be copied from one unit to another using the USB capability, effectively cloning the instrument.

Accessories

The 73 series has been designed to enhance productivity by offering an extensive range of accessories. Active accessories available include an automated 8 cell changer, sipper pump, peltier and a combined sipper peltier pump. A full range of passive accessories can also be fitted including adjustable path length (10 to 100mm) cuvette holders, single water heated cuvette holders, test tube holders and micro-cuvette holders.

All 73 series spectrophotometers are supplied with 100 disposable cuvettes, instruction manual, universal power supply, PC software on CD ROM and an interface cable. The 7310 and 7315 models are also supplied with a 2GB USB memory stick.

Instrument design

The patent pending design of the 73 series spectrophotometers cleverly minimises the overall footprint by encompassing the large, graphical display into the lid of the unit. The easy to read display is ideal for demonstrations and enables live spectrum and kinetics scans to be clearly viewed.

The units have the additional option of an integrated printer, for further space saving. All of the units use icon driven software for easy, intuitive navigation.

Enhanced features

The advanced 7310 and 7315 models have enhanced security features enabling the instrument and methods to be locked, preventing unauthorised changes to the instrument settings and method parameters. The home page can also be customised to provide a personalised menu. Selected modes can be deactivated which is ideal for teaching laboratories where access to certain measurement modes needs to be restricted.

All four units have autologging capabilities which enable repeat measurements of the same sample to be performed with a selected time interval between each measurement. The results can quickly and easily be printed using the integrated printer, or the external serial printer; results can also be saved directly to the USB memory stick (models 7310/7315 only).

	7300	7305	7310	7315
Wavelength				
Range	320 to 1000nm	198 to 1000nm	320 to 1000nm	198 to 1000nm
Light source	Tungsten halogen lamp	Xenon lamp	Tungsten halogen lamp	Xenon lamp
Resolution	1nm			
Accuracy	±2nm			
Repeatibility	±0.5nm			
Spectral bandwidth	5nm			
Photometrics				
Transmittance	0 to 199.9%			
Absorbance	-0.300 to 2.500A			
Accuracy	±1%T, ±0.01Abs at 1.000 Absorbance			
Resolution	0.1%T, 0.001A			
Concentration				
Range	-300 to 9999			
Resolution	Selectable 1/0.1/0.01/0.001			
Calibration	Blank with a single standard or factor			
Factor	0.001 to 10000			
Standard	0.001 to 1000			
Units	no units, %, ppm, EBC, SRM, mEq/l, mEq, M, mM, µM, nM, U, U/l, U/ml, g/l, mg/l, µg/l, ng/l, g/dl, mg/dl, µg/dl, mg/ml, µg/ml, ng/ml, µg/µl, ng/µl, mol/l, mmol/l			
Quantitation				
Range	-	-	-300 to 9999	
Resolution	-	-	Selectable 1/0.1/0.01/0.001	
Calibration	-	-	Blank with up to 6 standards	
Curve fit statistics	-	-	Quadratic, quadratic through zero, linear, linear through zero, interpolate	
Kinetics				
Measurement time	-	-	2 to 9999 seconds	
Calibration	-	-	Blank with a single standard or factor	
Resolution	-	-	Selectable 1/0.1/0.01/0.001	
Display	-	-	Graphical and concentration	
Analysis	-	-	Concentration, rate of change, initial and final absorbance or % transmittance	
Spectrum				
Scan interval	-	-	Selectable 1, 2 or 5nm	
Analysis	-	-	Absorbance or % transmittance and peak and valleys	
Other				
GLP	-	-	Current time and date, user ID, instrument lock and method lock	
Method storage	-	-	240	
Results storage	-	-	Limited by attached USB	
Removable media	-	-	USB (supplied)	
Outputs	Analogue, RS232, Integral printer		USB, Analogue, RS232, Integral printer	
Size (w x d x h)	275 x 400 x 220mm			
Weight	6kg			

Ordering Information

Part Code	Description
730 001	7300 spectrophotometer fitted with 10x10mm cuvette holder
730 501	7305 spectrophotometer fitted with 10x10mm cuvette holder
731 001	7310 spectrophotometer fitted with 10x10mm cuvette holder
731 501	7315 spectrophotometer fitted with 10x10mm cuvette holder

Accessories - Ordering Information

Part Code	Description
660 101	Internal printer
735 401	8 cell automatic turret
735 201	Sipper pump
735 301	Peltier
735 701	Sipper/peltier pump
735 801	10x10mm path length cuvette holder
736 001	10 to 100mm path length cuvette holder
735 901	16/24mm test tube holder
736 101	Micro-cuvette holder with reduced aperture
736 201	Water heated 10x10mm path length cuvette holder
735 601	Boiling tube holder

JENWAY

Bibby Scientific - UK (Group HQ)
Beacon Road, Stone, Staffordshire, ST15 0SA,
United Kingdom
Tel: +44 (0)1785 812121 l Fax: +44 (0)1785 813748
e-mail: sales@bibby-scientific.com

Bibby Scientific - US
3 Terri Lane, Suite 10, Burlington, NJ 08016, USA
Tel: +1 609 589 2560 l Fax: +1 609 589 2571
e-mail: labproducts@techneusa.com

Bibby Scientific - Middle East
PO Box 27842 Engomi 2433 Nicosia Cyprus
Tel: + 357 22 660 423 l Fax: + 357 22 660 424
e-mail: sales@bibby-scientific.me