

## Fluorescence Spectroscopy

## FL 6500™ - Pulse Fluorescence Spectrometer and FL 8500™ - Continuous Wave Fluorescence Spectrometer



With PerkinElmer's new fluorescence spectroscopy instruments, your laboratory can generate accurate and reliable fluorescence data, regardless of the operator's experience level. The FL 8500 uses a continuous wave excitation source for high sensitivity measurements at scan speeds of up to 60,000 nm/min. For samples where phosphorescence data is required, or when samples are at risk for being photo-bleached, the FL 6500 provides high quality results with a pulsed excitation source. Together, the

instruments make up the most complete fluorescence portfolio, allowing your laboratory to tackle any application challenge. Both instruments have interchangeable, plug n play accessories that are auto-recognized by the software, minimizing downtime between accessory changes. The intuitive software mirrors your laboratory workflow to streamline method development and get you from lamp warm-up to data reporting in mere minutes.

Technical Description and Specifications*		
	FL 6500	FL 8500
<b>Illumination Source</b>	Pulse Xenon lamp with user defined Power Settings	Xenon Arc (150 W) lamp Source
<b>Technology</b>	Preferred for Phosphorescence and with samples where photo-bleaching is a concern	Greater sensitivity and wavelength scan speed; instrument of choice when photo-bleaching is not a concern
<b>Peak Power</b>	Includes four Peak Power settings: (a) 120 Kw (b) 80 Kw (c) 40 Kw (d) 20 Kw	
<b>Resolution</b>	1.0, 2.5, 5, 10, 20 nm	
<b>Wavelength Accuracy</b>	0.5 nm	
<b>Wavelength Reproducibility</b>	0.2 nm	
<b>Wavelength Scan Speed</b>	Max. 24,000 nm/min	Max. 60,000 nm/min
<b>Response</b>	≥ 0.002, seconds	

Technical Description and Specifications* - Continued		
	FL 6500	FL 8500
<b>Communication</b>	USB 2.0	
<b>Detector</b>	PMT R928	
<b>Monochromator</b>	1200 grooves/mm	
<b>Sensitivity (S/N Ratio)</b>	Min 750:1 (RMS)	4000:1 (RMS); 1000:1 (Peak to Peak)
<b>Wavelength Range (Ex And Em)</b>	200 - 900 nm standard	
<b>Slit Width</b>	1, 2.5, 5, 10, 20 nm	
<b>Display Range</b>	0 ~260000	
<b>Filter Wheel</b>	12 slots that accept standard 12.5 mm round filters	
<b>Standard Excitation Filters</b>	3 Excitation filters included (290, 350, 530 nm)	
<b>Standard Emission Filters</b>	3 Emission filters included (320, 430, 515 nm)	
<b>Excitation Filter Options (Wavelengths)</b>	Optional excitation filters available. These include, but are not limited to, H-polarizer and V-polarizer. Easily added either internally onto the filter wheel or in the manual polarizer holder.	
<b>Emission Filter Options (Wavelengths)</b>	Optional emission filters available. These include, but are not limited to 590, 610, 665 nm, H-polarizer, and V-polarizer. Easily added either internally onto the filter wheel or in the manual polarizer holder.	
<b>Event Marker Button (Included)</b>	The event marker electronically identifies where/when within the data stream the sample introduction occurred	
<b>Injection Port (Optional)</b>	This functionality enables users to physically introduce reagents into sample cuvettes in real time	
<b>Software</b>	Spectrum™ FL Standard Spectrum™ FL Enhanced Security (ES)	
<b>Software Functionality</b>	Spectra Scan 3D-Spectra Scan Quantification Anisotropy/Polarization (in Spectra Scan and Single Read) Single Read Time Drive Kinetics Intracellular ion conc. Quantum yield (Relative and Absolute) Quenching Wavelength Program Lifetime Absorbance Validation Sipper Control Service Utility Pre-Scan Mode Synchronous scan mode (constant energy and wavelength) 3D Synchronous scan Sample Table Read FLWinLab Data Files Read UVWinLab Data Files	

## Technical Description and Specifications\* - Continued

	FL 6500	FL 8500
<b>Sampling Accessories</b>	Single Cell Holder Water Jacketed Single Cell Holder Water Jacketed Single Cell Holder w/Stirrer Solid Sample holder Variable Angle Solid Sample Holder Micro Cell Holder Water Jacketed Micro Cell Holder w/Stirrer Integrating Sphere Absorbance Module UV/Vis Automated Polarizer Rapid Mixing Accessory Fiber Optic Probe Vis Automated Polarizer Manual Polarizer Holder Microplate reader** 4-Position Multi-Cell Holder** Water Jacketed 4-Position Multi-Cell Holder** Water Jacketed 4-Position Multi-Cell Holder w/ Stirrer** Fast Filter** Single Cell Peltier Holder** 4-Position Multi-Cell Peltier Holder** Auto Sipper** S10 Autosampler**	
<b>Operating System</b>	Windows® 10, 64 bit	
<b>Power Supply</b>	100-240V at 50-60Hz	
<b>Physical Dimensions</b> (approx.) Width X Height X Depth	66 cm (26") x 36 cm (14") x 64 cm (25")	
<b>Weight</b>	Approx. 47 kg	

**Note:** FL 6500 and 8500 do NOT require attenuators. Attenuators are used to prevent saturation. The FL 6500 and FL 8500 allows the user to select from 0 V to 700 V, preventing saturation by controlling the PMT voltage.

\* Subject to change without notice

\*\* Software automation to be available December 2018