

QE Pro-FL Spectrometer

High-sensitivity Spectrometer for Fluorescence



The most sensitive spectrometer

The QE Pro-FL is ideal for low light level applications and measurements such as fluorescence measurements.

Features

- Portable : small footprint, light weight, fiber optic based spectrometer for the field
- Sensitive : high quantum efficiency detector
- Powerful : signal-to-noise ratio of >1000:1
- Stable : cooled detector allows low light detection and prevents spectral distortion

QE Pro-FL is a preconfigured spectrometer for fluorescence measurements and includes:

- HC1-QE grating (starting at 350 nm)
- OFLV-QE-350 order sorting filter
- 200 μm entrance slit
- OceanView software

Applications in which this product is used

- Light Measurement/ Laser Characterization
- LED Measurement/ Biotechnology Applications
- Medical Diagnostics/ Protein & Nucleic Acid Analysis
- Agricultural Measurements and Monitoring
- Food & Beverage Quality Control
- Teaching Labs/ Applied Research/ Basic Research
- Metallurgical Analysis/ Polymer Analysis
- Plasma Monitoring/ Thickness Measurement

Physical	
Dimensions	182 mm (7.17 in.) x 110 mm (4.33 in.) x 47 mm (1.85 in.)
Weight	1.15 kg (2.6 lbs.)
Detector	
Detector type	Hamamatsu scientific grade, back-thinned, TE Cooled, 1044 x 64 element CCD array
Range	185 – 1100 nm
Quantum efficiency	90% (peak)
Spectroscopic	
Wavelength range	350 – 1100 nm
Integration time	8 ms to 60 minutes
Dynamic range	~85,000:1
Signal-to-noise ratio	System: 1000:1 (single acquisition)
Grating	14 gratings available (H1–H14), HC1 grating
Slit	5, 10, 25, 50, 100 or 200 μm wide slits (or SMA/FC bulkhead with no slit)
Optical resolution	0.14 – 7.7 nm (Depends on grating and size of entrance aperture)
Stray light	<0.08% at 600 nm; 0.4% at 435 nm
Buffering	15,000 spectra
Fiber optic connector	SMA 905 and Ocean Optics FC
Electronics	
Power requirement	Supply voltage: 4.5 – 5.5 V
Strobe functions	continuous and single strobe
Interfaces	USB 2.0, 480 Mbps (USB 1.1 compatible); RS-232 (5-wire)
Temperature	TE Cooler can only cool 40 °C below ambient temperature; Operation: -40 °C to +50 °C
Humidity	\leq 90% noncondensing