



IET | International Equipment Trading Ltd.
www.IetLtd.com | *Proudly serving laboratories worldwide since 1979*
CALL +847.913.0777 for Refurbished & Certified Lab Equipment

Jasco Intelligence Fluorescence Detector

FP 2020 Plus

The JASCO Model FP-2020 Intelligent Fluorescence Detector is recognized as the industry's most sensitive detector with a signal-to-noise ratio of better than 350:1 for the Raman water peak. The FP-2020 covers a wide wavelength range both for excitation and emission from 220 to 700 nm (~ 900 nm with an operational PMT) with proven stability. Versatile time programming capabilities are provided for wavelength, response, gain, spectral scan, etc., permitting highly selective detection of various compounds. A rapid scan feature allows on-the-flow spectral acquisition for both emission and excitation spectra without interrupting the chromatographic elution. A specially designed chemiluminescence attachment and capillary electrophoresis cell are optionally available.

The FP-2020 can easily be interfaced with the JASCO HPLC system using the JASCO chromatography data systems. These packages offer full automation of all JASCO HPLC components including the FP-2020.

Maximum Sensitivity

Improvement in the optical design and coating allows greater efficiency in the collection of fluorescence energy resulting detection of anthracene ($S/N = 1$) at levels as low as 40 femtograms. With an S/N of greater than 350:1, the FP-2020 is the most sensitive HPLC fluorescence detector on the market ensuring accurate detection and quantification for applications with very low compound concentrations.

Advanced Optics

Holographic concave diffraction gratings and non-spherical mirrors are cleverly incorporated in a compact package resulting in extremely efficient and reliable monochromators. Replacement of the lamp can be easily performed in minutes by the user without even opening the instrument cover.

Highly Reliable Data

A built-in thermistor monitors optical bench temperature and automatically compensates for temperature variation via feedback through the CPU. Digital filtering further enhances signal intensity producing highly-reliable quantitative data especially for applications requiring the ultimate in detection limits.

Rapid Spectral Scanning

A rapid spectral scan function allows on-flow spectral scanning of both emission and excitation spectra without interrupting the chromatographic elution. The FP-2020 can store up to 10 EX and EM spectra within the on-board microprocessor. Spectral subtraction allows for a true sample spectra by eliminating any interference from the mobile phase solvent.

A Variety of Flow Cells

In addition to the standard 16 μ L flow cell, various type of flow cells, Micro flow cell (5 μ L), capillary flow cell for capillary electrophoresis, Chemiluminescence flow cell, inert flow cell are available to meet various applications. A rectangular cell holder is also available to place a rectangular cell (10 mm x 10 mm) for use of the FP-2020 as spectrofluorometer for methods development and finding optimal EX and EM wavelengths.

Optical System	
Monochromators	Holographic concave diffraction grating monochromators for both excitation and emission
Light source	150W Xe lamp
Settable wavelength	Zero order, 200~900 nm for both Ex and Em
Measuring Wavelength Range	Zero order, 220~ 700 nm for both Ex and Em, optional PM tube extends the range up to 900 nm
Spectral bandwidths	Ex: 18 nm fixed; EM: 18, 40 nm selectable
Wavelength accuracy	2.0 nm
Wavelength Repeatability	0.3 nm
Detectors	Ex: photodiode; Em: photomultiplier
Cell volume	16 μ L (standard)
Control System	
Sensitivity	S/n >350 for Raman peak of water (Ex=350 nm, time contrant=1.5 sec, with standard cell)
Sensitivity Range	1, 2, 4, 8, 16, 32, 64, 128, 256 and S.
Gain	x1. x10, x100, x1000

Response	FAST, STD, SLOW (0.5, 1.5, 5 sec.)
Digital Filter	3, 5, 10, 20, 40 sec
Signal processing	Digital processing by A/D and D/A converters
Output	10 mV/FS for recorder (Polarity change is possible) 1V/F/S for integrator marker, leak out marker, autozero, program reset/run
Input	marker, autozero, program reset/run
Self-diagnostics	Memories, DC power supply, ex. Energy leak in cell, lamp operation time
Programmings	
Time programming	64 steps, 10 files, 0.1 min increments for Ex and Em wavelength, range gain, autozero, spectral bandwidth, and spectral measurement
Spectral Scanning	Ex and Em spectra
Spectral subtraction	Ex and Em spectra
Lamp Timer	Shows accumulated lamp operation time
Lamp off timer	settable from 0~ 99.9 hours (0.1 hour increments)
Temperature Compensation	Compensates PM tube response for temperature variation
Miscellaneous	
External communication	RS-232C, LC-Net
Dimension	300 (W) x150 (H) x 470 (D) mm
Weight	Approx. 19 kg
Power input voltage	AC100~240 V +10% 50/60 Hz
Power Consumption	425 VA

Standard Accessories

Spare fuses	2 pcs
AC Power Cable	1 pc
Protection plate	1 pc
Screw Thumb	1 pc

WWW.IET.TD.COM



IET | International Equipment Trading Ltd.
www.IetLtd.com | *Proudly serving laboratories worldwide since 1979*
CALL +847.913.0777 for Refurbished & Certified Lab Equipment

IET - Used Lab Equipment - Refurbished Analytical Laboratory Instruments