Separations
Analytical Instruments b.v.

X-LC™ 3120FP Fluorescence detector

The X-LC 3120FP Fluorescence detector, the industry's most sensitive detector, has an excellent signal-to-noise ratio with proven stability, with a wide wavelength range (220-700 nm) for both excitation and emission. Advanced optics, holographic concave diffraction gratings, and non-spherical mirrors are cleverly incorporated in a compact package resulting in extremely efficient and reliable fluorescence detection.

X-LC™ 3120FP Specifications:

Monochromator:	Holographic concave diffraction grating (for EX and EM wavelengths)
Light source:	150 W Xenon lamp (mounted horizontally)
Wavelength range:	220 to 700 nm (for EX and EM wavelengths)

Spectrum:

Spectrum bandwidth:	Excitation side: 18 nm Emission side: 18 and 40 nm (two-step switching)
Wavelength accuracy:	± 2.0 nm
Wavelength repeatability:	± 0.3 nm

Detectors:

Excitation side:	Photodiode
Emission side:	Photomultiplier
Flow cell capacity:	1 µL
Solvent wetted materials:	Synthetic quartz, fluoropolymer, and stainless steel SUS316

Control system:

Sensitivity:	0.06 ppb (Quinine sulfate in 0.1 N sulfuric acid solution, S/N=2, EX: 350nm, EM: 460nm, Standard 1 µL flow cell, Response: Slow in X-LC mode
Measurement range:	10 steps in total: 1, 2, 4, 8, 16, 32, 64, 128, 256, and S
Gain:	x1000, x100, x10, and x1
Response:	Fast, standard, slow (X-LC mode and LC mode), digital filter methods (only for LC mode)
Signal processing:	Digital processing by A/D and D/A converters (having ambient temperature compensation circuits)

Data output speed:	50 data points/seconds
Output:	Recorder output: 10 mV/FS (polarity change is possible) Integrator output:1 V/FS Marker output and leak output: 1 circuit each
Input:	Marker input, autozero input, and Program reset run input: 1 circuit each
Program functions:	Time programmability for EX wavelength, EM wavelength, gain, attenuation, wavelength scan, etc.
Wavelength scan function:	Excitation spectrum and emission spectrum measurement (manual and time program) Spectrum storage (10 excitation spectra and 10 emission spectra) and spectrum output (difference spectrum)
Diagnostic test function:	Memory (ROM and RAM), DC power, EX energy decrease, cell leak, and lamp use time.
Lamp off timer:	99.9-hour maximum
Dimensions:	300(W) x 470(D) x 150(H) mm
Required power:	AC100 to 240V, 50/60Hz 425 VA
Temperature requirements:	+10 to +35°C during operation -30 to +60°C during storage

** Specifications are subject to change without notice.*

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Veersedijk 59
3341LL Hendrik Ido Ambacht

Tel: (078) 68 20 500
Fax: (078) 68 13 059

E-mail: info@separations.nl
Internet: www.separations.nl