



ESBK-1800HPLC

High Performance Liquid
Chromatography System



LABORATORY



Liquid chromatography is a technique that uses a liquid as the mobile phase to separate mixtures through a stationary phase. It utilizes the differences in partition coefficients and adsorption capacities of various components between the two phases, achieves separation through repeated distribution equilibrium, and combines with detectors for qualitative and quantitative analysis.

Features:

1. The system offers a comprehensive and flexible isocratic mode, and also provides binary gradient and quaternary gradient systems. Detection capabilities include PDA, UV/VIS, FL, RI and ELS.
2. The new optional, solvent manager units can easily switch 4 to 8 kinds of solvent base on binary gradient system. There are several configurations available for user selection.
3. The real-time solvent pressure compensation control enhances detection precision. The integrated check valve ensures stable fluid delivery and simplifies maintenance.

Technical Parameters

EX1800 HPC High-Pressure Constant Flow Pump:

Liquid Infusion System	Type I reciprocating infusion pumps
Flow Rate Range	62MPa 0.001~10ml/min, n0.001ml/min increments
Max Output Pressure	62MPa(corresponding 9000psi), 90MPa(corresponding 13000psi)
Flow Accuracy	≤0.06%RSD
Flow Precision	≤±0.3%
Compression Compensation	Automatic, continuous, selectable solvent type
Post-column Cleaning	Automatic post-column cleaning function, which can control the cleaning flow rate
Extended Application	Record the number of times the plunger rod seal is used

EX1800 BPC Binary High-Pressure Liquid Delivery Unit:

Liquid Infusion System	Type I reciprocating infusion pumps
Flow Rate Range	62MPa 0.001~10ml/min, n0.001ml/min increments
Max Output Pressure	62MPa(corresponding 9000psi), 90MPa(corresponding 13000psi)
Flow Accuracy	≤0.06%RSD
Flow Precision	≤±0.3%
Compression Compensation	Automatic, continuous, selectable solvent type
Post-column Cleaning	Automatic post-column cleaning function, which can control the cleaning flow rate
Gradient Setting Range	0~100%
Extended Application	Record the number of times the plunger rod seal is used



Technical Parameters

EX1800 QLPC Quaternary High-Pressure Liquid Delivery Unit:

Liquid Infusion System	Linear motor digital-driven pump
Flow Rate Range	Type I: 0.001~5.0ml/min in steps of 0.001 Type II: 0.001~10.0ml/min in steps of 0.001
Max Output Pressure	70MPa(corresponding 10150psi)
Flow Accuracy	≤0.06%RSD
Flow Precision	≤±0.3%
Compression Compensation	Automatic, continuous, selectable solvent type
Post-column Cleaning	Automatic post-column cleaning function, which can control the cleaning flow rate
Gradient Setting Range	0~100%
Online Degassing	Degassing channel systec AF
Degassing Chamber	480μl
Extended Application	Record the number of times the plunger rod seal is used

EX1800 UV Detector:

Flow Cell Volume	Volume 10.0μl; adopts cone structure/With optional temperature control module
Light Source	Deuterium lamp+tungsten lamp
Wavelength Range	190~900nm
Spectrum Bandwidth	8nm
Wavelength Accuracy	±1nm
Wavelength Precision	Below 0.1nm
Noise	≤0.25*10 ⁻⁵ AU(static)/±1*10 ⁻⁵ AU(dynamic, under specified test conditions)
Drift	≤0.4*10 ⁻⁴ AU/h(static)/±2*10 ⁻⁴ AU/h(dynamic, under specified test conditions)
Sampling Frequency	Up to 100Hz



EX1800 PDA Detector:

Number of Diode Arrays	1024
Light Source	Deuterium lamp+tungsten lamp
Wavelength Range	200~800nm
Wavelength Precision	±0.5nm
Wavelength Accuracy	±1nm
Noise	±5*10 ⁻⁶ AU, under specified conditions
Drift	1*10 ⁻⁴ AU/h, under specified conditions
Sampling Frequency	Up to 100Hz
Spectral Bandwidth	10nm
Flow Cell Path Length	5mm(10mm is optional) Up to 8 channels of digital signal output



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