

BK-100HPLC High Performance Liquid Chromatography System



Introduction:

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:

- * The system offers a comprehensive and flexible isocratic mode, and a binary gradient system is also available. Detection capabilities include PDA, UV/Vis, FL, RI and ELSD.
- * 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.
- * The real-time solvent pressure compensation control enhances detection precision. The integrated check valve ensures stable fluid delivery and simplifies maintenance.

LC-100 HP High-Pressure Constant Flow Pump:

Liquid Infusion System	Dual-piston reciprocating parallel pump, equipped with a binary high-pressure mixer
Flow Rate Range	0.001-10ml/min
Max Output Pressure	42MPa
Flow Accuracy	±1%
Flow Precision	RSD<0.07%
Qualitative Repeatability	RSD6≤0.1%(naphthalene/methanol standards)
Quantitative Repeatability	RSD6≤0.3%(naphthalene/methanol standards)
Pressure Fluctuation	0.1MPa
Power Supply	AC220/110V, 50/60Hz



LC-100 PDA Detector:

Wavelength Range	200~900nm(200~600*), Above 600 nm just for W lamp
Arrays	512
Spectrum Bandwidth	10nm
Light Source	D2 lamp+W lamp
Noise	±5*10 ⁻⁵ AU
Sample Rate	Max100Hz
Interface	LAN, USB, R232



LC-100 UV Detector:

Flow Cell Volume	8.0μl
Light Source	D2 lamp
Wavelength Range	190-680nm
Spectrum Bandwidth	8nm
Wavelength Accuracy	±1nm
Wavelength Precision	Below 0.1nm
Noise	≤0.25×10 ⁻⁵ AU(static)/±1×10 ⁻⁵ AU(dynamic, under given conditions)
Drift	≤0.4×10 ⁻³ AU/h(static)/≤2×10 ⁻³ AU/h(dynamic, under given conditions)
Minimum Detectable Concentration	3×10 ⁻⁹ g/mL(naphthalene/methanol solution)



ARCUS 5 Auto-sampler:

Sample Loading	Standard tray (1) 2 ml*54 vials (default standard configuration) Expanded tray (2) 10 ml*15 vials (3) 4 ml*35 vials Each side could be set with one of the tray types and the tray in one side could be different from the other side; the system could automatically identify the tray type; maximum 108 vials are available(2ml vial)
Vial Height	H ≤ 52mm(including septa and cap-mat)
Metering Pump Volume	200μl(precision: 0.1μl)
Injection Mode	Full loop injection Partial loop injection No waste injection
Automatic Protection	Vial-missing alarm, sample needle fault alarm, pipeline jammed alarm, and leakage alarm
Power Supply	AC115~230V, 50/60Hz
System Test Quantitative Repeatability	Full loop injection: RSD6≤0.3% Partial loop injection: RSD6≤0.5%(injection volume ≥ 10μl) No waste injection: RSD6 ≤1.0%(injection volume ≥ 10μl)
Memory Effect	≤ 0.005%(designated washing procedure)
Maximum Pressure	40 Mpa(conventional) 69 Mpa(ultra-high performance system)



Technical Parameters:

Model	BK-100HPLC (Type I) Isocratic manual system	BK-100HPLC (Type II) Gradient manual system	BK-100HPLC (Type III) Isocratic manual system	BK-100HPLC (Type IV) Gradient manual system	BK-100HPLC (Type V) Binary gradient manual system with PDA
Software With Audit Trail	/	/	Yes	Yes	Yes
Diode Array Detector	/	/	/	/	Yes
High-pressure Constant Flow Pump	LC-100 HP*1	LC-100 HP*2	LC-100 HP*1	LC-100 HP*2	LC-100 HP*2
UV Detector LC-100 UV	Yes	Yes	Yes	Yes	/
Diode Array Detector (With English Workstation)	/	/	/	/	LC-100 PDA*1
Workstation LC-100 WS	Yes	Yes	/	/	/
Workstation EX-Clarity C50	/	/	Yes	Yes	/
Manual Sampler 7725i	Yes	Yes	Yes	Yes	Yes
C18 5μm ID4.6*250mm	Yes	Yes	Yes	Yes	Yes
High-precision Mixer EX1600 MX3	/	Yes	/	Yes	Yes
Power Supply	AC220/110V, 50/60Hz				
Optional Accessory	UV detector, RI detector, PDA detector, ELSD detector, FLD100 detector, column, LC-CO 100 standard column oven, ARCUS 5 auto-sampler				
Package Size (W*D*H)	450*620*350mm*2	450*620*350mm*3	450*620*350mm*2	450*620*350mm*3	450*620*350mm*2 660*560*500mm*1
Gross Weight	19kg; 15kg	19kg; 19kg; 15kg	19kg; 15kg	19kg; 19kg; 15kg	19kg; 19kg; 18kg