

BK-1800UHPLC Ultra-high Performance Liquid Chromatography System



Introduction:

Ultra-high Performance Liquid Chromatography (UHPLC) is an advanced liquid separation technique evolved from HPLC. It separates mixture components based on the difference in partition coefficient and adsorption capacity between mobile phase and stationary phase via repeated equilibrium distribution, and matches high-speed detectors to complete efficient qualitative and quantitative analysis.

Features:

- * Multiple detection modules are optional, including PDA, UV/VIS, FL, RI and ELSD.
- * Built-in real-time solvent pressure compensation control improves detection accuracy; integrated check valve ensures stable fluid delivery and reduces daily maintenance workload.
- * Designed with low dead-volume flow path and high-pressure resistant structure. It delivers higher separation resolution, shorter analysis cycles and lower organic solvent consumption compared than standard HPLC systems.
- * High-frequency detector sampling ensures complete data collection of narrow chromatographic peaks, greatly enhancing sensitivity and reproducibility for trace impurity detection.

EX1800 ULBP Binary Ultra-High Pressure Linear Motor Infusion Module:

Liquid Infusion System	Digital linear motor driven serial pump
Flow Rate Range	0.001~5.000ml/min, 0.001ml/min increment
Max Output Pressure	120MPa
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



EX1800 SUV Detector:

Flow Cell Volume	1.0μl
Light Source	Deuterium lamp
Wavelength Range	190~700nm
Spectrum Bandwidth	4nm
Wavelength Accuracy	±1nm
Wavelength Precision	0.1nm
Noise	≤0.2*10 ⁻⁵ AU (Air cell, 254nm, 20°C)
Drift	≤0.4*10 ⁻⁴ AU/h (Air cell, 254nm, 20°C)
Sampling Frequency	100Hz



EX1800 PDA detector:

Number of Diode Arrays	512
Light Source	Deuterium lamp + tungsten lamp
Wavelength Range	200~800nm
Wavelength Precision	±0.5nm
Wavelength Accuracy	±0.1nm
Noise	±5*10 ⁻⁶ AU, under specified conditions
Drift	1*10 ⁻⁴ AU/h, under specified conditions
Sampling Frequency	100Hz
Spectral Bandwidth	10nm



Technical Parameters:

Model	BK-1800UHPLC(Type I)	BK-1800UHPLC(Type II)
	Binary gradient automatic system with UV	Binary gradient automatic system with PDA
Diode Array Detector	/	Yes
UV Detector	EX1800 SUV*1	/
Pump	EX1800 ULBP*1	
Solvent Manager	EX1800SO SD4*1	
Auto-sampler	EX1800 UAS*1, pressure resistant 120MPa, max 108pcs 2mL vials, quadruple protection device	
Column Oven	EX1800 CO*1, temperature range: RT+5~80°C	
Pronaos EP-C18, 5μm, 4.6*250mm	Yes	
Workstation EX-Clarity C50	Yes	/
Power Supply	AC220/110V, 50/60Hz	
Optional Accessory	UV detector, RI detector, PDA detector, ELS detector, FL detector, column, EX1800 CO II refrigerated column oven: temperature range: RT-15~80°C Auto-sampler: EX1800 UAS II, pressure resistant 120MPa, max 192pcs 2mL vials, quadruple protection device; EX1800 UAS C II, pressure resistant 120MPa, max 192pcs 2mL vials, quadruple protection device, with cooling function	
Package Size (W*D*H)	720*580*410mm*4; 720*580*510mm	720*580*410mm*4; 720*580*510mm
Gross Weight	32kg; 21kg; 18kg; 18kg; 33kg	32kg; 23kg; 18kg; 18kg; 33kg