K-Prep FC

Preparative HPLC systems

K-Prep FC is a preparative HPLC system that allows seamless scaleup from small scale production up to industrial scaling-up processes.

Features:

- Smooth transition from laboratory scale to industrial scale
- Usable for production purpose
- All-in-one system equipped with HPLC pumps to load samples and fraction collectors
- Strong support for preparative purifications provided by fullyautomatic operation by PC
- Compliance with IQ/OQ validation and CSV



Channel Diagram

Mark Name E Inlet Port F Factor Port P Pump C Conductivity Sensor C Conductivity Sensor C Conductivity Sensor BPU Bey Resort PC Pressore Sensor PE Pressure Sensor UV UV Detector WP Planting Pump C Optional F Factor Advance BPU Back Pressure Valve PC Pressure Sensor UV UV Detector WP Plunger Washing Pump *Gradient mode UV UV Detector WP Plunger Washing Pump Penge Penge BPU Penge	E Inlet Port F F Fraction Port PH P Pump C C Column RV RV Relief Valve BPV BPV Back Pressure Valve BPV PE Pressure Sensor DF UV UV DE Disk Filter UV UV DF DF BPBV BPBV BPBV BPBV BPBV BPBV BPBV								
F Fraction Port PH pH densor P Pump Column BSR05 C Column BV Back Pressure Valve PBV Away Pneumatic Ball Valve BPV Back Pressure Valve PE Pressure Sensor DF Disk Filter UV UV Detector DF Disk Filter UV UV Detector PUmp A MIX 4Mser BPU Perssure Gauge DF Disk Filter UV UV Detector PUmp A MIX 4Mser Pressure Sensor UP Plunger Washing Pump *Gradient mode E1 PPBV Plunger Washing Pump *Gradient mode E2 PPBV Plunger Washing Pump Pump A MIX 4Mser BBV Pump B UP Manual Pump A Pump B F2 BBV F8 BBV F7 BBV F6 Sample Sample Sample BBV F3 BBV F2	F Fraction Port PH	Mark	Name	Mark	Name				
P Pump EC Conductivity Sensor C Column MIX Mixer 3PBU Away Pneumatic Ball Valve BV Belief Valve 4MBV Away Pneumatic Ball Valve BV Belief Valve 4MBV Away Pneumatic Ball Valve BV Belief Valve PC Pressure Sauge D Disk filler UV UV Detector DF Disk filler UV UV Detector WP Plunger Washing Pump *Gradient mode E1 PBV P P MIX P B P M M M P B P M M M P B P P P P P B P P M M B P B P P M M M B B B P P M M M B B B P	P Pump C Column 3PBV 3way Pneumatic Ball Valve 4PBV 4way Manual Ball Valve 4PBV 4way Manual Ball Valve PE Pressure Sensor UV UV Detector P Pump A MIX Mixer WP Plunger Washing Pump *Gradient mode optional	E	Inlet Port	TE	Temperature Sensor				
P Pump C Column 3PBV May Pneumatic Ball Valve 4PBV Away Pneumatic Ball Valve PF Pressure Sensor UV UV UV UV DF Disk Filter UV UV UV UV UV UV DF Disk Filter UV UV UV UV DF Disk Filter UV UV UV Deressure Sensor UV UV DF Disk Filter UV UV Purge PumpA MIX Manual Manual Injection DF Sample PumpB V PumpB </th <td>P Pump C Column 3PBV 3way Pneumatic Ball Valve 4PBV 4way Manual Ball Valve 4PE Pressure Sensor UV UV Detector PE Pressure Sensor UV UV Detector Person Pump A Mixt 4PBV Person Pump B Manual Pressure Sensor UV Pump B Manual Pump B Pump B Pump B Pump B Pump B Pump B Pump B <t< td=""><td>F</td><td>Fraction Port</td><td>PH</td><td>pH Sensor</td><td></td><td></td><td></td><td></td></t<></td>	P Pump C Column 3PBV 3way Pneumatic Ball Valve 4PBV 4way Manual Ball Valve 4PE Pressure Sensor UV UV Detector PE Pressure Sensor UV UV Detector Person Pump A Mixt 4PBV Person Pump B Manual Pressure Sensor UV Pump B Manual Pump B Pump B Pump B Pump B Pump B Pump B Pump B <t< td=""><td>F</td><td>Fraction Port</td><td>PH</td><td>pH Sensor</td><td></td><td></td><td></td><td></td></t<>	F	Fraction Port	PH	pH Sensor				
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4PBV 4way Manual Ball Valve 4MBV 4way Manual Ball Valve PE Pressure Gauge DF Disk Filter UV UV DIV Detector BFU Ask Filter UP Picanew PE Pressure Sensor UV UV Div Detector BFU Bellef *Gradient mode *Gradient mode UV BFU Bellef *Gradient mode Optional Bellef	4PBV 4way Pneumatic Ball Valve 4MBV 4way Manual Ball Valve PE Pressure Sensor UV UV Detector BPV Back Pressure Gauge DF Disk Filter WP Plunger Washing Pump e optional *Gradient mode E1 3PBV F 3PBV BPV Amaula Manual Injection BPV BPV BPV BPV BPV BPV BPV BPV Sample Pump Sample				Mixer				
AMBV 4way Manual Ball Valve PE Pressure Sensor UV UV Detector PE Pressure Sensor UV UV Detector PE Pressure Sensor UV UV Detector Person Person Pressure Sensor UV UV Detector Person Person Person	4MBV 4way Manual Ball Valve PE Pressure Sensor UV UV Detector PUT Disk Filter WP Plunger Washing Pump *Gradient mode Image: Comparison optional E1 Peressure Gauge Image: Comparison optional E3 PBV Pump A MIX Pump B Manual injection Image: Comparison optional Image: Comparison optional Image: Comparison optional Image: Comparison optional								
PE Pressure Sensor DF Disk Filter *Gradient mode UV UV Detector WP Plunger Washing Pump *Gradient mode optional optional	PE Pressure Sensor DF Disk Filter *Gradient mode UV UV Detector WP Plunger Washing Pump *Gradient mode E1 3PBV Pump A MIX Gradient mode E2 Pump A MIX Gradient mode SPBV BV Pump A MIX Gradient mode SPBV BV Pump B Manual injection DF SPBV BV Pump B Pump B Gradient mode SPBV Sample Sample Sample Sample Sample								
UV UV Detector WP Plunger Washing Pump optional	UV UV Detector WP Plunger Washing Pump optional								
E1 3PBV F2 BBV F3 3PBV F5 Sample BV F2 BV F5 Sample F2 BV F5 Sample F5 S	E1 3PBV E2 3PBV E3 3PBV E4 Pump B Pump								
3PBV P E2 P B3 3PBV B4 P Pump B Manual injection Injection DF 3PBV F8 3PBV F8 3PBV F7 3PBV F6 3PBV F6 3PBV F5 3PBV F5 3PBV F5 3PBV F3 3PBV F2	3PBV P E2 P B3 3PBV P Purge Purge APBV Purge APBV Purge APBV Purge APBV Purge APBV Purge APBV	UV	UV Detector	WP	Plunger Washing Pump	optiona	l		
BPV	3PBV	E2 E3 E4 Sample	3PBV	P P Pump Pump Pump	APBV APBV PE	Injection 4MBV	DF	3PBV 3PBV 3PBV 3PBV 3PBV 3PBV 3PBV 3PBV	F10 F9 F8 F7 F7 F6 F5 F5 F4 F3

YMC CHIRAL ART Columns

Specifications

	FC750S	FC750G	FC1500S	FC1500G	FC3000S	FC3000G				
Gradient capability	no	yes	no	yes	no	yes				
Flow rate range	1 - 750 n	ıL/min	1 - 1500	1 - 1500 mL/min		1-3 Lpm				
Flow rate accuracy	±2% (75 mL/min and above)		±2% (150 mL/min and above)		±2% (300 mL/min and above)					
Maximum pressure	10 MPa									
Fraction port	1/4", SUS316, Swagelok fitting									
Inlet port	1/4", SUS316, Swagelok fitting		3/8", SUS316, S	Swagelok fitting	?	?				
Solvent channel	2ch	4ch (2 × 2ch)	2ch	4ch (2 × 2ch)	2ch	4ch (2 × 2ch)				
Fraction collector	5-channel switching valve method + drain									
Sample pump	1 - 300 mL/min									
Detector	UV (200 - 400 nm), 3 variable-wavelengths measurable									
Control and display	laptop PC (changeble FA PC) and programmable logic controller									
	AC200V 50/60Hz									
Utility	0.6 kW	1.1 kW	0.6 kW	1.1 kW	0.6 kW	1.1 kW				
	0.5 MPa dry air									
Dimension	850 (W) × 970 (D) × 1300 (H) mm									

Before use (installation, operation, maintenance or check-up) of our products, instruction manuals should be carefully read and understood, and safety rules and precautions followed as outlined in the manuals.



The software, K-Prep, is developed in compliance with 21 CFR Part 11, cGMP, GAMP and Computer System Validation (CSV).

Electronic Records The software is designed on the premise of a closed system and complies with 21 CFR Part 11 Subpart B(a)-(e)

Electronic Signatures Each user ID and password conbination is created, which complies with 21 CFR Part 11 Subpart C and with identification components of CSV guidelines.

System Validation Lifecycle model of development and validation is constructed and verified at each stage of planning, designing, implementation, and testing. Documents are prepared in compliance with CSV guidelines.



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