

PuriLinX[®] Benchtop Chromatography System

PuriLinX[®] is a benchtop chromatography system suitable for laboratory scale. It has high basic configuration, accurate and stable flow, high pressure resistance, and sensitivity in detection. The software has complete functions to meet the needs of various chromatography process development. Integrating functions such as instrument control, method editing, data analysis, standard curve, report generation, user permissions management, and audit trail, the software complies with relevant FDA/GLP/GMP regulations.





Product Features:

- High configuration (dual-pump and double-bubble sensor, dual-pump back pressure valve, column valve, multi-channel loading valve, multi-channel outlet valve, and DAD ultraviolet detector), to meet diverse needs of chromatography process development
- Classic duplex plunger parallel pump with reliable control and mechanical components, providing high accuracy and long-term stability
- **Detector adopting modular design**, with independent coupled light source and highly sensitive polychromator spectral analysis system
- **External flow path design** to avoid intersection with circuits, preventing accidental liquid leakage from damaging electrical components and prolonging the service life of the equipment
- Humanized design of the instrument shell, elegant appearance, easy to operate and maintain
- Linkage control of instrument and software, supporting wireless connection; user-friendly system software in line with the habits of laboratory personnel, supporting custom editing

Main Modules of PuriLinX[®] Protein Purification System

Pump system

With a classic duplex plunger parallel pump and reliable control and mechanical components, the system runs stably for a long time and provides accurate flow output.





- Small dead volume of the pulse damper
- Advanced cam technology and a double piston mechanism, providing virtually pulse-free fluid delivery
- Specially designed for chromatographic separation and liquid phase analysis, featuring a large flow range, high accuracy, and small pulse
- Standard fluid path materials: stainless steel and PEEK

DAD detector

DAD400 is an ultraviolet diode array detector specially developed for fields such as chromatography, environmental protection, and online monitoring.

The detector adopts a modular and separate design, has an independent coupled light source and a highly sensitive polychromator spectral analysis system, uses comprehensive methods to suppress stray light and circuit noise, and has a good dynamic range and excellent resolution.



- Czerny-Turner polychromator spectral analysis system
- The optical fiber is used to connect the flow cell, effectively isolating the heat source and facilitating maintenance
- Multiple wavelengths can be set simultaneously
- No mechanical motion parts, excellent stability
- Rich output interfaces, easy to adapt

Bubble sensor

The ultrasonic bubble sensor is a standardized and easy-to-use sensor specially developed to achieve online fluid bubble monitoring in laboratories and processes, requiring no ultrasonic couplants.



- Requiring no couplants, non-contact detection
- No damage to the sample
- Flexible and easy to use, dual-color LED indicator light

Collection rack

The new generation of general component collector can be used alone or in combination with a protein purification system.



- Collection type: 96-well plate, 13 mm test tube rack, 16 mm test tube rack, 30 mm test tube rack
- The test tube rack tray is applicable to all collection types, with no need to be changed
- Matching other domestic and foreign generators, the instrument provides a wealth of external interfaces and a separate touch-screen control system



No.	Interface description	No.	Interface description
1	Power interface	5	Trigger interface (electrical level/short circuit/relay)
2	Network cable interface	6	Analog input interface
3	RJ12 interface	-	Solonoid valvo data
4	COM serial port (232/485)	al port 7 cable i 485)	cable interface

Mixer

Mixing is performed by a dynamic, electromagnetically driven mixer, and the volume of the mixing pool is 2 mL

pH detector (including temperature compensation)

Detection range: pH: 0-14; detection precision: 0.1 pH

Conductivity detector (including temperature compensation)

Detection range: 0-999.999 mS/cm; detection precision: ±2%

PuriLinX® Software Control – Smart Power

Smart Power is a specially developed intelligent and easy-to-use control system software that adopts a separate component design to enable customers to quickly master the skills of using the software.



Result analysis:

The software provides comprehensive analysis functions such as spectrum comparison, peak analysis, column efficiency analysis, and result export, and provides effective data analysis support for small-scale screening and process scale-up studies.



Data storage:

Automatic backup to ensure data security



Method editing:

Text editing to meet more complicated requirements for method editing



Equipment Parameters

Configuration option	Name	Technical parameters		
	PuriLinX infusion pump	PuriLinX® 36	PuriLinX® 100	
		Dual-pump system flow rate range: 0.01-36 mL/min; pressure resistance range: 0-34.5 MPa (5000 psi); flow accuracy: ±1.5%	Dual-pump system, flow rate range: 0.01-100 mL/min; pressure resistance range: 0-10.3 MPa (1500 psi); flow accuracy: ±1.5%	
		Flow rate repeatability: RSD ≤ 0.5% Gradient type: linear, isocratic, stagewise gradient, gradient ratio can be modified online		
	Inlet channel	4 channels: A1, A2, B1, B2		
	Bubble sensor	Ultrasonic detection, two sensors (A/B), standard configuration		
	Mixer	Electromagnetically driven mixer		
	Injection valve	High-pressure 6-way valve, supporting load, inject, and waste modes		
	Column valve	High-pressure 6-way valve, supporting upflow, downflow, and bypass modes		
Standard configuration	DAD detector	DAD400 has variable four-wavelength with a detection range of 190-400 nm, enables direct reading of full spectrum, and can detect four arbitrary wavelengths simultaneously Wavelength range: 190-400 nm Channel: quadruple channel Wavelength accuracy: 1 nm		
	PH online sensor	Range: 0–14; accuracy: ±0.1; temperature compensation: yes		
	Conductivity online sensor	Range: 0-999.99 ms/cm; accuracy: ±2%; temperature compensation: yes		
	Pressure sensor	Pre-column pressure monitoring		
	Online filter	20 μm PP filter disc		
	Component collector module	Collection type: 1-way liquid waste, 1-way collection by collector Placement of: 4 96-well plates; 2 13-mm test tube racks; 2 16-mm test tube racks; 2 30-mm test tube racks		
	Accessory package	Including pipeline, connector, maintenance tool, instructions for use, and dongle, etc.		
	Control system	Control system (including computer, keyboard, mouse, English and Chinese operating software) can achieve 24-h uninterrupted operation		
	Buffer inlet valve	9-channel: pump A: A1-1 to A1-6, A2; pump B: B1, B2		
	Outlet valve	6-channel: 1-way liquid waste, 4-way bulk collection, 1-way collection by collector		
Configuration selection	Sample pump	SP36D: flow rate range 0.01-36mL/min, pressure resistance range 0-34.5MPa, flow rate accuracy ±1.5%.		
		SP100D: flow rate range 0.01-100mL/min, pressure resistance range 0-10.3MPa, flow rate accuracy ±1.5%.		
	Four column position valve	Can connect four chromatography columns at the same time, support upflow, downflow, bypass		

Ordering Information

	Product code	Model	Configuration description	Note
i i i i	BLKX3601	PuriLinX 36D	36 mL dual-pump system, 2 inlets for pump A, 2 inlets for pump B, 1 automatic collection outlet, 1 waste liquid outlet, 1 bulk collection outlet	4 inlets, 3 outlets
	BLKX3602	PuriLinX 36S	36 mL dual-pump system, 6+1 inlets for pump A, 2 inlets for pump B, 1 automatic collection outlet, 1 waste liquid outlet, 1 bulk collection outlet	9 inlets, 3 outlets
	BLKX3603	PuriLinX 36M	36 mL dual-pump system, 2 inlets for pump A, 2 inlets for pump B, 1 automatic collection outlet, 1 waste liquid outlet, 4 bulk collection outlets	4 inlets, 6 outlets
	BLKX3604	PuriLinX 36L	36 mL dual-pump system, 6+1 inlets for pump A, 2 inlets for pump B, 1 automatic collection outlet, 1 waste liquid outlet, 4 bulk collection outlets	9 inlets, 6 outlets
	BLKX1001	PuriLinX 100D	100 mL dual-pump system, 2 inlets for pump A, 2 inlets for pump B, 1 automatic collection outlet, 1 waste liquid outlet, 1 bulk collection outlet	4 inlets, 3 outlets
	BLKX1002	PuriLinX 100S	100 mL dual-pump system, 6+1 inlets for pump A, 2 inlets for pump B, 1 automatic collection outlet, 1 waste liquid outlet, 1 bulk collection outlet	9 inlets, 3 outlets
	BLKX1003	PuriLinX 100M	100 mL dual-pump system, 2 inlets for pump A, 2 inlets for pump B, 1 automatic collection outlet, 1 waste liquid outlet, 4 bulk collection outlets	4 inlets, 6 outlets
	BLKX1004	PuriLinX 100L	100 mL dual-pump system, 6+1 inlets for pump A, 2 inlets for pump B, 1 automatic collection outlet, 1 waste liquid outlet, 4 bulk collection outlets	9 inlets, 6 outlets



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About BioLink

BioLink is a group of technology-driven businesses that provide process solutions in the life sciences industry. The company focuses on the development and production of the key processing equipment and consumables used in the manufacturing process of recombinant protein drugs, vaccines, antibodies, cell therapies, gene therapies, and other biological products. BioLink's portfolio of offerings covers the entire upstream and downstream bioprocess such as cell culture, single-use mixing and storage, chromatography, filtration (ultrafiltration/diafiltration, clarification, and virus removal), and hydration products, as well as process development services. BioLink is committed to providing customers with high-quality, innovative products and solutions and strives to build an efficient, safe and competitive biopharmaceutical supply chain eco-system.

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