LIQUID CHROMATOGRAPHY
CODE HLC-3000

ANALYSIS METHODS AND CONFIGURATIONS CAN BE CUSTOMIZED ACCORDING TO INSPECTION REQUIREMENTS

Ultraviolet-Visible detector (included)
- Highly accurate, self-calibrating analog-to-digital converter and optical path system improves the signal-to-noise ratio of the detector
- With automatic wavelength calibration and the ability to optimize the deuterium lamp energy
- Digital and analog signal output at the same time, more practical
- Dual wavelength simultaneous detection for more accurate results

Auto-sampler (included)
- The patented inlet design and unique cleaning method ensure ultra-low sample residue
- The cooling function of the sample tray makes the sample analysis process more stable
- Support high-speed sampling mode, the fastest can be realized within 1s

High pressure pump (included)
- Patented low-pulsation, high-precision, tandem, dual-plunger, high-pressure, constant-current pump designed to minimize pulsation
- The special seal design makes the maximum pressure resistance of the pump up to 90 MPa, which meets the requirements of many kinds of analytical experiments
- Multi-stage microporous mixing with labyrinth design mixer for more uniform mixing and lower pulsation

column oven
(included)

- Widely used in drug discovery, food safety, environmental testing, life sciences, etc.
- Various temperature control modes of the column temperature chamber make the temperature more accurate
- The auto-sampler has a high-speed injection mode that makes the analysis process faster
- The cooling function ensures the stability of the analysis process even for biological samples
- EMC electromagnetic compatibility function can avoid other electromagnetic interference, and makes the instrument more stable
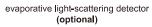
STANDARD DELIVERY

High pressure pump	1pc
Auto-sampler	1pc
Column oven	1pc
Ultraviolet-Visible detector	1pc
Solvent bottle tray	1pc
Sample cell	1pc
Chromatography data workstation	1set
Column (5um 4.6×250mm)	1pc
Mobile phase solvent bottles	2pcs
Computer	1pc
Consumables and spare parts	1set*

*Including common consumable tools such as connecting pipes and pipe joints

OPTIONAL ACCESSORY

Name	Code	Analysis material
Evaporative light-scattering detector (ELSD)	HLC-D-ELSD	sugars, alcohols, amino acids, etc.
Fluorescence detector (FLD)	HLC-D-FLD	analysis of compounds with fluorescent properties, such as pesticide residues, veterinary drug residues, certain biomolecules, etc
Photo-diode array detector (PDA)	HLC-D-PDA	proteins, nucleic acids and other biomolecules
Refractive index detector (RID)	HLC-D-RID	sugars, polymers, etc.

evaporative light-scattering detector
(optional)

fluorescence detector
(optional)

photo-diode array detector
(optional)

refractive index detector
(optional)

SPECIFICATION

Detector	**Analysis material**	organic compounds, inorganic ions, biomolecules (such as DNA, proteins) with UV-visible absorption properties
	Type	Ultraviolet-Visible detector
	Wavelength range	190~800nm
	Baseline noise	≤1.5×10^{-5}AU
	Baseline drift	≤2.0×10^{-4}AU/h
	Light source	deuterium lamp, tungsten lamp
	Bandwidth	8nm
	Minimum detection concentration	≤1.0×10^{-9}g/mL
	Linear range	≥2.5AU
	Wavelength accuracy	±1nm
	Wavelength repeatability	≤±0.2nm
	Detection cell temperature contro	5-55°C, setting step 0.1°C
	Detection cell optical range	10nm
	Detection cell pressure	≤0.1Mpa
High pressure pump	**Pump type**	binary high pressure constant current pump
	Gradient mixing accuracy	±0.5%
	Gradient mixing precision	≤0.1%
	Flow range	0.001~10.000mL/min
	Maximum working pressure	90Mpa
	Flow stability	≤0.06%
	Gradient composition ratio	0~100%, programmable range
	Pressure pulsation	≤0.1Mpa
Auto-sampler	**Temperature control range**	4~40°C
	Special function	empty bottle detection and false tie alarm
	Injection method	full loop injection, lossy injection, lossless injection
	Input range	0~100µL
	Vial quantity and specification	210th (1mL vial) 120th (2mL vial) 72th (4mL vial) double 96-well plate (support base magnetic plate option)
	Input residue	<0.002%
	Sample repeatability	<0.03%
	Feed rate	support high-speed sampling mode, the fastest can realize 1s sampling
Column oven	**Temperature range**	heating mode: 10~85°C cooling mode: 4~35°C smart mode: 4~85°C
	Heating method	pall paste element plus air circulation for temperature control
	Temperature accuracy	±0.1°C
	Optional valves	optional 2 six-position seven-way valves or 2-position 6-way valve or 2-position 10-way valve
	Temperature control accuracy	≤0.1°C
Power supply		110~220V, 50/60Hz, 1400W
Dimensions (L×W×H)		600×540×540mm
Weight		75kg

SOFTWARE (INCLUDED)