VIDEO

ANALYSIS METHODS AND CONFIGURATIONS CAN BE CUSTOMIZED ACCORDING TO INSPECTION REQUIREMENTS

LIQUID CHROMATOGRAPHY
CODE HLC-3000



column oven (included)

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



evaporative light-scattering detector (**optional**)



fluorescence detector (**optional**)



photo-diode array detector (**optional**)



refractive index detector (**optional**)

- 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

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

STANDARD DELIVERY

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

* 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.

SOFTWARE (INCLUDED)

