

# ION CHROMATOGRAPHY CODE HLZ-1000

ANALYSIS METHODS AND CONFIGURATIONS CAN BE CUSTOMIZED ACCORDING TO INSPECTION REQUIREMENTS

LIQUID ANALYSIS



- Widely used in medicine, environment, food, chemistry, geology, research laboratories, etc.
- Can analyze anions, cations, and other polar substances in diverse matrix samples
- Auto-range conductivity detector, concentration signal can be switched from ppb to ppm
- On-line leakage monitoring, alarm and shutdown when leakage
- Intelligent switch on/off
- Gas-liquid separation, balances system pressure, ensures a smooth baseline

### STANDARD DELIVERY

Main unit	1pc
Infusion pump	1pc
Conductivity detector	1pc
Auto-sampler	1pc
Anion chromatography column	1pc
Anion protection column	1pc
Anion suppressor	1pc
Cation chromatography column	1pc
Cation protection column	1pc
Cation suppressor	1pc
Analysis software	1pc
Computer	1pc
Column oven	1pc
Gas-liquid separator	1pc
Needle filter (0.22µm)	200pcs
Consumable and spare parts	1set*

### OPTIONAL ACCESSORY

Electrodialytic eluent generator	HLZ-EG120
Pretreatment column C18	HLZ-SPE-C18
Amperometric detector	HLC-AD150



electrodialytic eluent generator  
(optional)

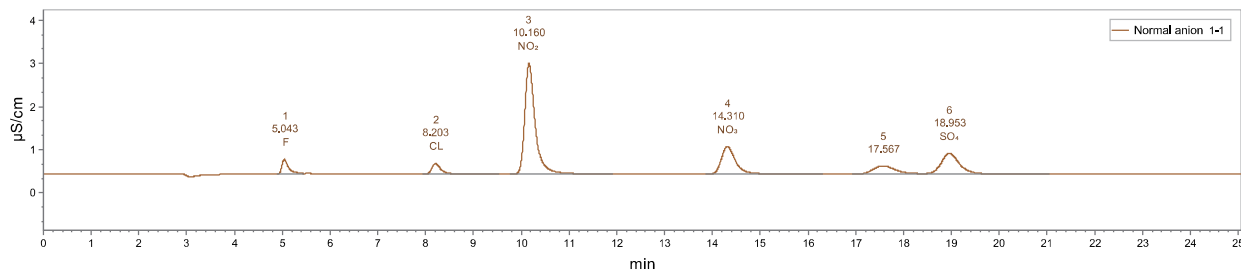
\*Including common consumable tools such as connecting pipes and pipe joints

## SPECIFICATION

Analysis material	cation	1. can analyse cations such as Li <sup>+</sup> , Na <sup>+</sup> , NH <sub>4</sub> <sup>+</sup> , K <sup>+</sup> , Mg <sub>2</sub> <sup>+</sup> , Ca <sub>2</sub> <sup>+</sup> , etc. 2. can analyse betaine and choline chloride
	anion	1. can analyse anions such as F <sup>-</sup> , Cl <sup>-</sup> , Br <sup>-</sup> , NO <sub>2</sub> <sup>-</sup> , PO <sub>4</sub> <sup>3-</sup> , NO <sub>3</sub> <sup>-</sup> , SO <sub>4</sub> <sup>2-</sup> , ClO <sub>2</sub> <sup>-</sup> , BrO <sub>3</sub> <sup>-</sup> , ClO <sub>3</sub> <sup>-</sup> , etc. 2. can analyse organic acids
Detector	type	thermostatic auto-range conductivity detector
	concentration range signal	adaptive signal switching for ppb~ppm concentration range
	temperature control	control the temperature of the conductivity pool by software
	pool volume	≤0.8μL
	detection range	0~35000μS/cm
	detection resolution	0.0020nS/cm
	baseline noise	0.001μS/cm
	baseline drift	≤0.002μS/30min
	maximum pressure	10MPa
	minimum detection limit	Cl <sup>-</sup> ≤0.0005μg/mL, Li <sup>+</sup> ≤0.0005μg/mL
	instrument linearity	≥0.999
	qualitative repeatability	≤0.5%
quantitative repeatability	≤1%	
Infusion pump	type	high-pressure, low-pulse double-plunger tandem pump
	applicable solution	suitable for pH 0~14 eluents and reversed-phase organic solvents
	maximum pressure	42MPa (material PEEK)
	flow range	0.001~9.999mL/min
	allowable error	≤0.25%
	flow Stability	≤0.3%
Suppressor	suppression technology	continuous self-regenerating micro-membrane electrical suppression technology
	flow path	parallel regenerative flow path
	high rejection capacity	200μeq /min (anion), 100μeq /min (cation)
	pressure resistance	2MPa (no leakage up to 6MPa)
	dead volume	≤40μL
Thermostatic system	temperature range	ambient temperature +5°C to 60°C
	allowable error	±1°C
	stability	≤0.1°C/h
Auto-sampler	type	triaxial auto-sampler
	number of vial	120 positions (2mL capacity)
	maximum Input Volume	1000μL
	input method	full quantitative loop / partial quantitative loop / nondestructive sampling
	injection precision	full loop injection: RSD ≤ 0.3%
Power supply	110~220V, 50/60HZ, 150W	
Dimension (LxWxH)	310×400×530mm	
Weight	22kg	

## APPLICATION

### Drinking water analysis



Name	Retention time (min)	Concentration (mg/L)	Peak area (μS/cm)×min	Peak height (μS/cm)
Fluoride	5.043	0.1	0.057520	0.332568
Chloride	8.203	0.15	0.058278	0.250672
Nitrite	10.160	2	0.663449	2.573802
Nitrate	14.310	1	0.224313	0.647586
Sulfate	18.953	0.75	0.222333	0.479444