

# PRODUCT CATALOG



## **ION CHROMATOGRAPHY BCHR-105**





#### **ION CHROMATOGRAPHY BCHR-105**

Chromatography is a technique that enables the separation, identification, and purification of the components of a mixture for qualitative and quantitative analysis. Our extensive range offers variety of products like Gas, Ion and Portable Ion chromatography products to meet all separation needs, including improved resolution, enhanced sensitivity, faster analysis and consistent performance.

Used in Food Testing, Chemical Industry, Beverage Testing, Drug testing, Forensic Science, Pharmaceutical, Molecular Biology, Medical, Research, Laboratory.

Also known as Laboratory Chromatography.

#### **BCHR-105 ION CHROMATOGRAPHY**



Cation and anion dual-channel system, with both channels operating independently without disturbing each other and cations and anions being detected simultaneously.

Eluent thermal buffer system in which eluent enters into the columns after preheated, to avoid bubbles generated from rapid heating.

Intelligent flow path mode, one-key operation to complete flow path switch, automatic cleaning to save time and labor.

Built-in low-pressure degassing technology to eliminate bubble interference for more stability.

The world's leading full-range series of chromatographic columns able to detect of ions with varied compositions.

Excellent performance to support all your applications.lon Chromatographic Pump: Type - High-pressure and low-pulse two-piston tandem advection pump

Numerical-control and Electromagnetic Sample Injector: Contact Material of the Rotor -  $\mbox{\sf PEEK}$ 

Numerical-control and Electromagnetic Sample Injector: Control Mode - By Stepper motor

Conduction Detection System: Type - Temperature control and bipolar conductivity detector

### **SPECIFICATIONS**

| Model   | BCHR-105   |
|---|--|
| Ion Chromatographic Pump                              |  |
| Pressure Display Accuracy                             | ≤ 0.1 MPa  |
| Maximum Pressure                                      | 35 Mpa (PEEK)  |
| Flow Range  | 0.001 ~ 9.999 mL/min   |
| Resolution of Flow Rate                               | 0.001 ml   |
| Flow Precision  | < 0.1%   |
| Flow Accuracy   | < 0.1%   |
| Pressure Pulse  | ≤ 0.5%   |
| Flow Stability  | $(0.2\text{-}0.5) \text{ mL/min} \le 3\%$ ; $(0.5\text{-}1.0) \text{ mL/min} \le 2\%$ ; $> 1.0 \text{ mL/min} \le 2\%$ |
| Numerical-control and Electromagnetic Sample Injector |  |
| Maximum Pressure                                      | 35 Mpa   |
| Power Supply  | 24 V (DC)  |
| Column Heater   |  |
| Operating Temperature Range                           | +20°C~60°C (68~140°F)  |
| Controlling Temperature Accuracy                      | ± 0.01°C   |
| Allowable Deviation of Column Heater's Temperature    | ± 1°C  |

| Temperature Stability                      | ≤ 0.05°C/h   |
|--|--|
| Conduction Detection System                |  |
| Cell Volume                                | ≤0.8μL   |
| Detection Mode                             | Bipolar conductivity detection   |
| Detection Range                            | 0~50000 μS/cm  |
| Detection Resolution                       | ≤0.0020nS/cm   |
| Output Voltage                             | -6000~+6000 mv (adjustable)  |
| Electronic Noise                           | 0.02 nS  |
| Baseline Noise                             | ≤ 0.001 µS/cm  |
| Baseline Drift                             | ≤ 0.02µS   |
| Operating Temperature Range                | Room temperature +5°C~60°C(41~140°F)   |
| Controlling Temperature Accuracy           | ±0.01°C  |
| Maximum Pressure                           | 10.0 Mpa   |
| Linear Range                               | ≥103   |
| Instrument Linearity                       | ≥0.999   |
| Quantitative Repeatability                 | ≤1.0%  |
| Qualitative Repeatability                  | ≤1.0%  |
| Thermal Buffer System of Eluent            |  |
| Thermal Buffer System of Eluent            | Before enter into the column,the eluent is preheated. By the way,can avoid the rapid heating up and the bubbles to generate,the baseline is more stable, effectively shorten the start-up balance time and improve the analysis efficiency and effect. |
| Temperature Range                          | 25~40°C (77~104°F)   |
| Built-in and Low-pressure Degassing Device |  |
| Vacuum Degree                              | -70 kPa  |
| Maximum Flow Rate                          | 10 mL/min  |
| Internal Volume                            | 30 μL  |
| Degassing Efficiency                       | 10 mL/min 90%  |
| Flow System                                |  |
| Six-way Valve                              | PEEK material, pressure 5000 psi; Independent automatic collecting and flow function.  |
| Built in Eluent Generator                  |  |
| Eluent Types                               | KOH/MSA  |
| Eluent Concentration Range                 | 0.1-120 mM   |
| Concentration Increment                    | 0.1 mM   |
| Flow Rate Range                            | 0.1-5.0 mL/min   |
| Maximum Pressure                           | 20 Mpa   |
| Minimum Pressure                           | 5 Mpa  |
| Suppressor                                 |  |
| Туре                                       | Self-Regenerating electrolytic micro-membrane suppressor   |
| Maximum Pressure                           | 6.0 Mpa  |
| Dead Volume                                | <50 μL   |
| Other Specifications                       |  |
| Dimension (LxWxH)                          | 500x500x760 mm   |
| Net Weight                                 | 48 kg  |
| Gross Weight                               | 73 kg  |
| Power                                      | 350 W  |



#### Biolab Scientific Ltd.

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