# Nwspec LC-8000 Smart HPLC System

## Overview

The LC-8000 is a smart, modular HPLC system designed for high-performance gradient separations. Combining a precision binary pump, variable wavelength detector, and an intelligent system controller, this system ensures stability, durability, and simplicity in operation—ideal for routine and advanced applications.

## Key Features

**Infusion pump unit: Four-element low-pressure infusion pump**

1.Maximum pressure resistance: 6000 psi (40Mpa)

2. Flow rate range: 0.001-10,000 mL/min (increment 0.001mL/min)

3. Flow accuracy: ≤0.06% RSD(ASTM)

4. Flow accuracy: ±0.2%

5. Pressure pulsation: ≤1%

6. Gradient accuracy: ±0.5%

7. Gradient repeatability: ≤0.1%

8. Online cleaning of plungers: Standard configuration, high/medium/low speed

9. Channel volume: Four-channel degassing function, 480 μ L/channel

**Detector: Ultraviolet-visible detector**

1.Wavelength range: 190-800 nm

2. Light sources: deuterium lamp, tungsten lamp

3. Spectral bandwidth: 8 nm

4. Wavelength accuracy: ±1 nm

5. Noise: ±0.35×10-5 AU (ASTM)

6. Drift: 1×10-4 AU/Hr

7. Wavelength accuracy: 0.2 nm

8. Linear range: >2.5AU (ASTM)

9. Maximum sampling rate: 100Hz

10. Pressure resistance of the flow cell: 1200PSI

11. Flow cell aperture: 10mm

12. Minimum detectable concentration: 4×10-9 g/mL

**Sampler: Automatic sampler**

1. Injection mode: Full-loop injection/Partial injection/micro-liter carrier injection

2. Quantitative loop volume: Standard configuration is 100 μL

3. Injection repeatability: Full-loop injection: RSD≤0.3%; Partial injection: RSD≤0.5%; micro-liter carryover injection: RSD≤1%

4. Sample capacity: 2 standard 48-position sample bottle racks, 1.5mL injection bottles (standard configuration)

(96-well plate and 384-well plate are optional)

5. Cross-contamination: < 0.005%

6. Linearity: 0.9999

7. Maximum pressure resistance: 6000psi (customizable)

**Column oven**

1.Temperature control range: Room temperature +5℃-70℃

2. Temperature accuracy: ±1.0℃

3. Temperature stability: ±0.1℃

4. Column capacity: 1 250mm chromatographic column (1 10mm guard column can be added)

**Chromatographic column**

Standard configuration: C8,250×4.6mm,5um

**Chromatography workstation**

1. Regulatory applicability: Complies with FDA 21 CFR Part11/GMP/GLP standards;

2. Ease of use: The graphical monitoring interface enables you to keep track of the device status at any time, making it simple and easy to use.

3. Data Processing: Powerful data processing capabilities, providing multiple integration functions and calculation methods;

4. Rich functions: Automatic peak width, automatic threshold algorithm, adaptive data collection, and automatic algorithm adjustment to achieve the best integration effect;

5. User Management: It features a powerful and comprehensive user management function, allowing for the setting of access permissions for convenient management. Different usage permissions can be set according to actual needs.