

The Thermo Scientific SpectraSYSTEM™ family of HPLC pumps guarantee exceptional precision, performance, and reliability, all in a simple-to-use space-saving design. Solvent delivery capabilities range from isocratic (P1000) to quaternary gradient (P4000).

SpectraSYSTEM Pumps

Flexibility for methods development and routine applications

- Real-time pressure feedback control system provides automatic solvent compressibility compensation for accurate and precise flow
- Highest retention time reproducibility from precise flow control, solvent proportioning, and efficient mixing
- Complete regulatory compliance through factory certification and optional field qualification services
- Guaranteed performance to specification through factory QA/QC testing
- Complete ROHS compliance

P4000 Quaternary Pump

The Thermo Scientific SpectraSYSTEM P4000 is designed for maximum performance and flexibility. Advanced features include four solvent mixing, eleven method files, and a queue for linking files. Multi-tasking software lets you change operating conditions in real time or program files while the pump is running.

A 'Develop File' makes methods development fast and easy by automatically searching a range of isocratic or gradient conditions. Twenty-one gradient curves expand methods development flexibility and can be scouted automatically using the 'Develop File'.

P1000 Isocratic Pump

The Thermo Scientific SpectraSYSTEM P1000 is a rugged, reliable, and easy-to-use, single-solvent pump. Microprocessor diagnostics monitor electronics and flow performance. A convenient maintenance log tracks operation and reminds you when maintenance is scheduled.



ChromQuest™ Chromatography Data System

Thermo Scientific ChromQuest offers maximum flexibility and efficiency in setting up and maintaining the performance of chromatography instruments. ChromQuest protects your results by ensuring data traceability and integrity with enhanced security features and electronic documentation. Sophisticated analytical tools facilitate high sample throughput and powerful data processing for liquid chromatography. ChromQuest maximizes laboratory efficiency with project management for information storage and transfer. Along with accelerating data analysis and results generation, ChromQuest uses robust integration, flexible calibration routines, and advanced spectral analysis tools that help avoid the unexpected.

Certification and Qualification Services

Every pump is tested at the factory prior to shipment to ensure that it meets or exceeds performance specifications. A Declaration of Conformity (DC) accompanies each pump and documents test results. On-site field testing (optional) qualifies system performance.

Specifications

Pump Design

- Dual piston in-series for lowest pulsation
- Micro-stepped motor control
- Floating piston bayonet-mounted heads
- Patented ceramic check valves

Flow Accuracy

± 1.0% at 1 mL/min

Flow Precision

< 0.2% RSD

Flow Range

0.01–10.0 mL/min

Composition Repeatability

< 1%

Gradient Accuracy

± 1% absolute for 20, 40, 60 and 80% steps (binary)

Gradient Linearity

± 1% from 5–95% composition (binary)

Maximum Pressure

6000 psi, 420 bar, 42 MPa

Wetted Surfaces

Stainless steel or PEEK™, titanium, ceramic, sapphire, Teflon®, Tefzel®, and polyethylene

Pressure Pulsation

< 2% amplitude; < 1% typical at 1 mL/min water or methanol at > 500 psi

Delay Volume

< 1.2 mL

Method Files

Protected in non-volatile memory

Communications

Remote Inputs

Run and Stop

Outputs

Ready, Run, Timed Events, and Analog Pressure

Ambient Environment

10–40 °C, 5–95% relative humidity (non-condensing)

Dimensions

37 cm × 15 cm × 47 cm (H × W × D)

Weight

17 Kg

Power Requirements

100/120/220/240 VAC nominal; 200 VA; 50 to 60 Hz

Product Certification

TUV CUS

TUV CE Mark

FCC (EMI)

Ordering Information

Part Number	Description
60053-60139	P1000 Isocratic Pump
60053-60144	P4000 Quaternary Pump
SCM1000-033	Vacuum Degasser 110-240 VAC
A4122-010	Helium Degas Manifold (2)
A4144-010	Helium Degas Manifold (4)
60053-60138	SN4000 System Controller
CHROM-64510	ChromQuest 5.0 Full Install
00109-01-00007	Hypersil GOLD™ Column, 100 x 4.6 mm, 3 µm
A5765-073	SpectraSYSTEM Accessory Rack

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