

Ultra High Pressure Gradient System



UHP system with EZ Start control and data included.

Gradient Performance and Value

The UHP System provides reproducible high-pressure binary gradient capability. Two Ultra high Pressure pumps can be programmed through the included PC-driven software to give chromatography separations up to 18,000psi from .001ml/min to 5ml/min. The result is ultra high-pressure gradient performance at the price of a normal gradient system. The pumps have automatic pressure compensation, advanced recompression software and full calibration capabilities to insure accurate results.

Affordable Sensitivity

The UHP system includes an easy-to-use, high sensitivity Model 525 variable UV Dual wavelength programmable detector designed for routine applications and the choice of low volume flow cells for high speed or ultra high-resolution chromatography or normal cells.

20 Hz data collection for fast chromatography

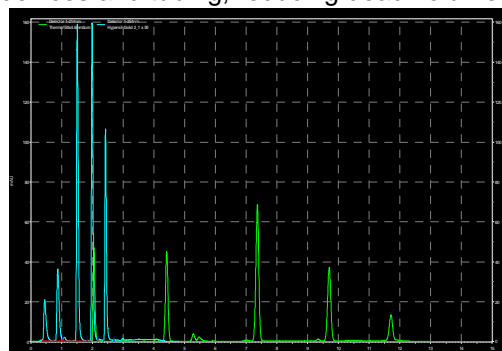
The detectors available give up to 20 Hz resolution to allow peaks of .2sec to be accurately measured.

Easy Operation and Data Reduction

The user-friendly EZ Start software permits easy control of the pumps, detector and data reduction. Additionally Run/Stop inputs, and upper and lower pressure limits are standard features and easily programmed.

Low internal Volume for Accurate Gradients

The internal design of the solvent delivery system eliminates the need for large mixing devices and tubing, reducing dead volume.



This allows both normal chromatography and high speed high resolution separations on the same system

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UHP PUMP SPECIFICATIONS

Flow Rates	0.001 - 5.000 mL/min. (each pump)
Pressure	0 – 18,000 psi
Pulsation	± 1% @ 1mL/min. and 1,000 psi
Pressure Accuracy	± 1% of full scale pressure
Flow Accuracy	± 2%
Flow Precision	0.2% RSD
Gradient Accuracy	Within 1% absolute @ 1mL/min. and 10,000 psi
Voltage	110-120 Vac, 50/60 Hz; or 220-240 Vac, 50-60 Hz
Physical	6.5" H x 12.0" W x 15.5" D (165 x 787 x 394 mm); 42 lbs (19 kg)

STANDARD PUMP FEATURES

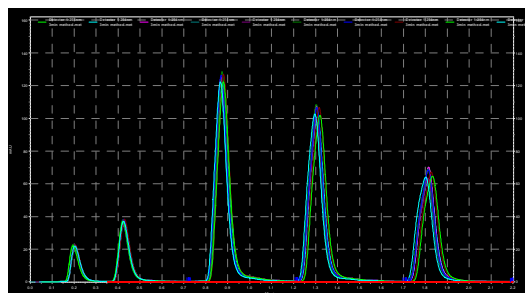
- Automatic pressure calibration
- Advanced recompression software
- Low volume mixing
- Calibration function
- Stainless Steel Fluid Path
- Digital control

STANDARD CONTROLS

- RS-232 Port (each pump)
- Pressure monitoring and limits
- Run/stop Input (each pump) - 5 volt TTL type

GRADIENT CONTROL

- Gradient control is achieved via host PC with EZ Start software.
- Communication from Pump Module to PC is through an RS-232 card.
- Typical Pump Gradient Percent Range:
 - 0-100% in 0.1% increments.
 - Low volume Toroidal mixer is included



Specifications subject to change without notice.

UHP Reproducibility Study – Linear gradient runs superimposing 9 runs

MODEL 525 DETECTOR SPECIFICATIONS

Optical design	Concave holographic grating monochromator, with dual beam optics; pre-aligned lamps		
Noise	<±1.0 x 10 ⁻⁵ AU @254 nm, 1.0 s rise time; <±2.5 x 10 ⁻⁵ AU @254 and 280 nm, 1.0 s rise time, dual-wavelength mode (525 only)		
Drift	<2 x 10 ⁻⁴ AU/hr. after warm-up @ 254 nm		
Wavelength range	<i>Deuterium (D2) lamp:</i> 190-365 nm <i>Tungsten (W) lamp:</i> 366-800 nm		
Dual Wavelength:	190-450 nm, or, 366-800 nm		
Lamp(s)	D2 and W standard (525)		
Wavelength accuracy	±1.0 nm	Wavelength precision	±0.1 nm
Spectral bandwidth	6 nm	Absorbance range	0.0005-3.0 AUFS
Absorbance linearity	>1% to 2.0 AU @254 nm		
Remote inputs	Run, Stop, Zero	Output flags	Ready, Accessory Relay
Analog outputs	(2): both range-selectable over entire absorbance range (525); 1.0 AU/V and range-selectable (201)		
Ambient Environment	10 to 40° C; 5% to 95% relative humidity, noncondensing		
Dimensions	17 cm x 30 cm x 41 cm (HxWxL)	Weight	14 kg (31 lbs.)



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EZ Start SPECIFICATIONS

What is EZStart?

EZStart is a complete data acquisition, processing, and control package for 1 instrument. Based on the highly popular EZChrom *Elite*™ software package, EZStart is the ideal solution for laboratories who want a simple-to-use chromatography data system with comprehensive software features and instrument control. It is intended to provide the basic requirements for data acquisition and optional instrument control for a single workstation. EZStart consists of two software modules: **EZStart Configuration** and **EZStart**. With EZStart, instrument control and analysis is reduced to just 3 steps: **Configure, Run, and Report**.

Once the instrument is configured, any user can launch EZStart, immediately choose a method and submit samples for acquisition. All this operation is done in EZStart's Single Window Access environment - a design that greatly simplifies tasks for the casual or novice user. Either single runs or sequence runs can be performed. Users can still take advantage of the intelligent features in SmartSequence™, a powerful tool that automates much of the decision making process based on user defined criteria. If methods or sequences need to be created from scratch, the simple wizards will guide you through a stepwise process.

Flexible report management

Within any method exists a report template. Users simply select from standard templates and can produce the reports they require. EZStart's custom report editor may be used to modify existing templates or to create new report templates.

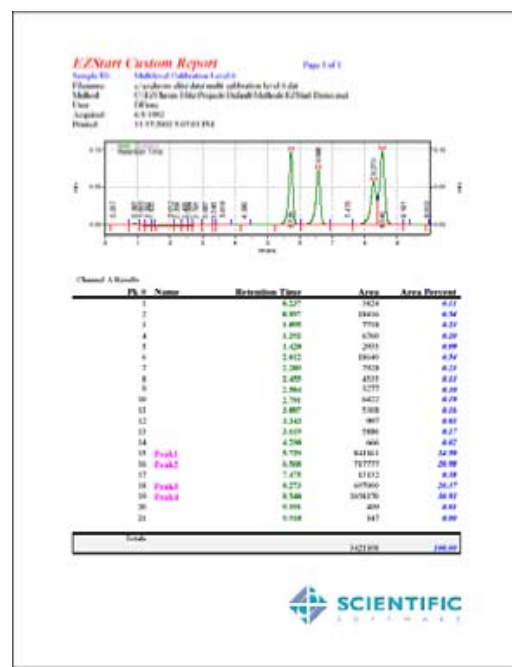
Trade up when you're ready

When you are ready to upgrade to the full features of EZChrom *Elite*, including multi-instrument control in a networked enterprise, PDA (3D data handling capability), extensive user and project administration, electronic signature, advanced reporting and audit trail functionality of the full data system, your data files and instrument configurations will be forward compatible.

What can EZStart do for you?

Here are just a few of the benefits:

- Takes you from configuration to analysis in just 3 steps.
- An affordable cost-effective solution with control of instrument modules from numerous vendors or analog acquisition from any source.
- Facilitate productivity further with Method and Sequence wizards.
- Respond automatically and intelligently to real-world conditions with SmartSequence™ technology.



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ORDERING INFORMATION

Basic System

Binary UHP gradient chromatography system,
includes:

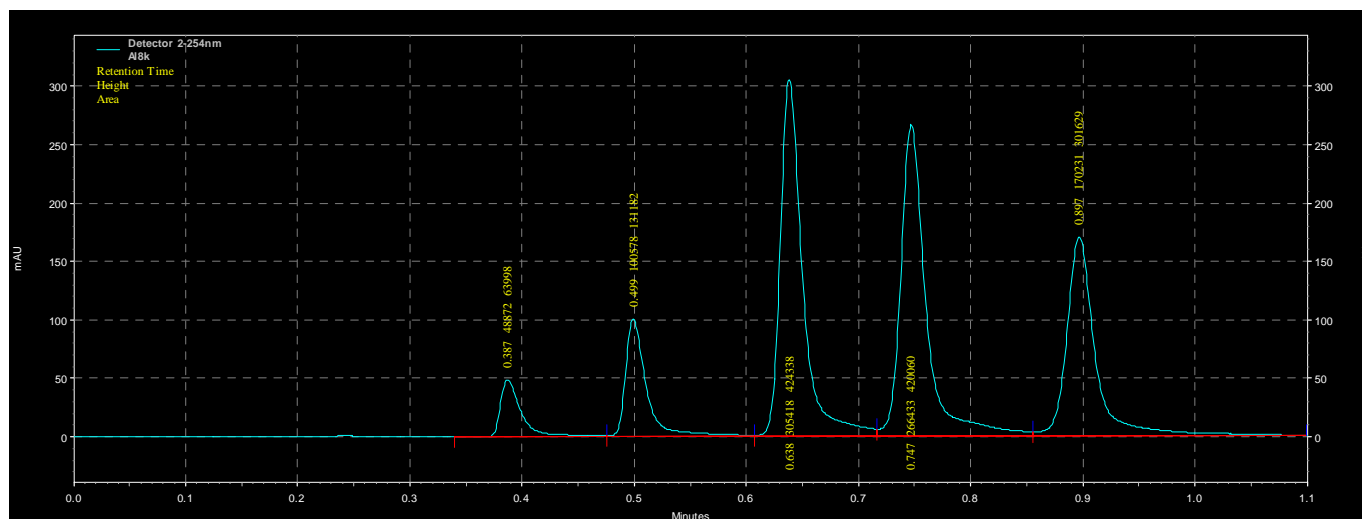
SYS0201

- 2 UHP pumps (SS);
- EZ Start software and PC;
- Model 525 programable variable dual channel UV/Vis detector;
- System accessories kit

Options:

Manual Injector
Autosampler
Ultrafluor Fluorescence detector
UV 6000 photodiode

Contact your representative for a system quote.



Lab Alliance will shorten your analysis times



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