
KNAUER Preline Systems for Batch Chromatography

Overview

The basic Preline system shown here consists of a preparative HPIC Pump 1800, a Smartline UV Detector 2500, preparative Module 6100 together with a Knauer preparative column. The Preparative Module 6100 (a variant of the Smartline Assistant 6000 module) consists of a feed pump, an injection valve and a valve for fraction collection and solvent recycling.

KNAUER Preline systems can be operated either manually in stand-alone mode or with data system software for fully automatic control, based on the Smartline modules Preline systems offer convenience and reliability while occupying a minimal amount of laboratory bench space.

Pumping System

The Preparative HPLC Pump 1800 can be equipped with four different pump heads for maximum flow rates of 100, 250, 500, or 1,000 ml/min, in either stainless steel or titanium for biocompatible applications.

Detectors

Smartline UV Detectors can be fitted with flow cells to accommodate 1/16", 1/8" or 1/4" connectors, enabling flow rates up to 10,000 ml/min. Our preparative flow cells are available in stainless steel or PEEK versions and have an optical path length of either 3 mm or are adjustable to 0.5, 1.25 or 2 mm. Flow cells and detectors for fiber optic connections to separate the flow cell from the detector, particularly useful for operation in hazardous environments or for positioning the cell at the column outlet, are available.

Fraction Collection

Optional solvent recycling and fraction collection based on either time (volume), signal level, signal slope or even spectral similarity is possible.

Flexibility for Later

Thanks to its modular design, a basic Preline system can be modified at any time to accommodate changing requirements, e. g. a different detection method or pump head. Preline systems can also easily be converted into high pressure or low pressure gradient systems.



Specifications

The actual overall performance specifications of these systems depend to a large extent on the application itself and the actual system configuration. Flowspek AG offers a validation service for the system which will check all agreed specifications for the component modules and ensures that these are all functioning correctly within their specifications. The scope of any validation is usually agreed with our customers and then a controlled validation document created.

Ordering Information

<p>Preline-Basic</p> <p>Standard Preline system for isocratic batch operation in routine applications using single wavelength UV detection to monitor the separation.</p>	<ul style="list-style-type: none"> • 1800 preparative pump with either 100, 250, 500, or 1000 ml/minute pump head, • Smartline 2500 UV Detector with variable path length preparative flowcell, • Smartline Prep Assistent for sample injection and fraction collection, • Chromgate Data System software for control and acquisition from a single HPLC system, • Fraction Collector Control option for Chromgate software, • Computer including monitor and interfacing for Chromgate system control, • Installation kit including all fittings, tubing etc necessary to run the system.
<p>Preline-Scan</p> <p>Based on the standard Preline system for isocratic batch operation in routine applications this system uses the Smartline 2600 multi-wavelength UV detector to monitor the separation.</p>	<ul style="list-style-type: none"> • 1800 preparative pump with either 100, 250, 500, or 1000 ml/minute pump head, • Smartline 2600 UV Detector with preparative flowcell for simultaneous monitoring up to 4 different wavelengths and spectra, • Smartline Prep Assistent for sample injection and fraction collection, • Chromgate Data System software for control and acquisition from a single HPLC system, • Fraction Collector Control option for Chromgate software, • Spectrum scanning option for the 2600 Detector with Chromgate software, • Computer including monitor and interfacing for Chromgate system control, • Installation kit including all fittings, tubing etc necessary to run the system.
<p>Preline-DAD</p> <p>Based on the standard Preline system for isocratic batch operation in routine applications this system uses the Smartline 2800 Diode Array Detector to monitor the separation.</p>	<ul style="list-style-type: none"> • 1800 preparative pump with either 100, 250, 500, or 1000 ml/minute pump head, • Smartline 2800 Diode Array Detector with preparative flowcell for simultaneous monitoring of both spectra and multi-wavelength detection, • Smartline Prep Assistent for sample injection and fraction collection, • Chromgate Data System software for control and acquisition from a single HPLC system, • Fraction Collector Control option for Chromgate software, • Spectrum scanning option for the 2800 Detector with Chromgate software, • Computer including monitor and interfacing for Chromgate system control, • Installation kit including all fittings, tubing etc necessary to run the system.
<p>A4094-1</p>	<p>Low pressure binary gradient option for the 1800 pump, converts any of the above systems to a gradient system.</p>
<p>A2866</p>	<p>ChromSim Software for simulation of peak recycling and fraction collection</p>
<p>A2867</p>	<p>IsothermFit Evaluation Software for determining non-linear adsorption isotherms when working at high concentrations</p>