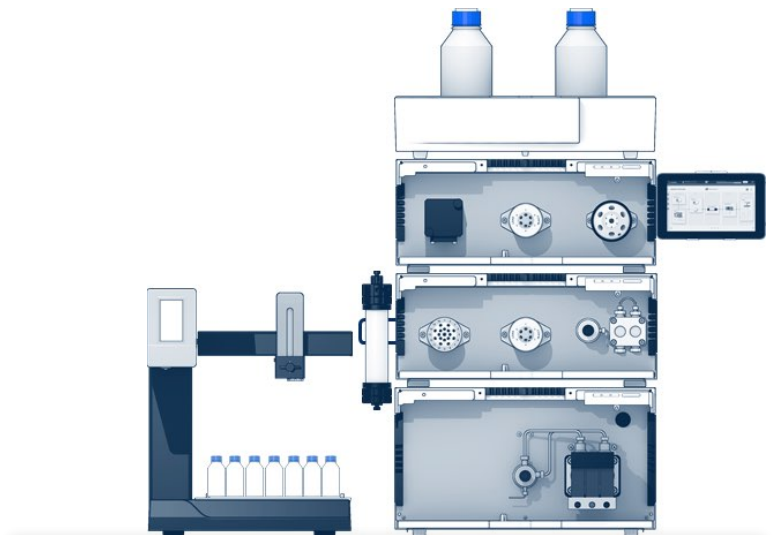
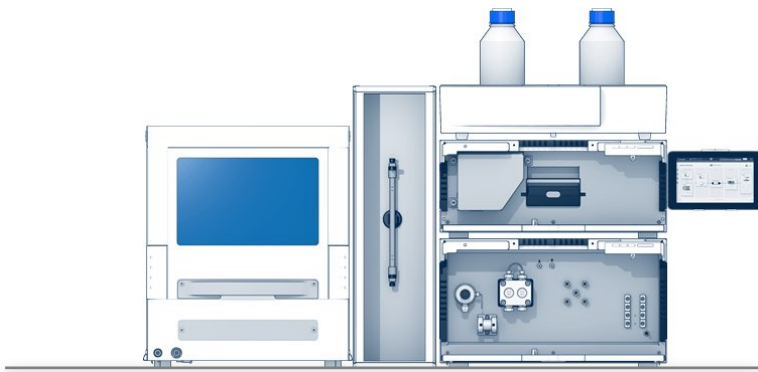


AURA made in germany



System Selection Guide 2016

Welcome to KNAUER - manufacturer of liquid chromatography instruments and solutions!

KNAUER ("KNAUER Wissenschaftliche Geräte GmbH") is an owner-managed middle-sized company situated in Berlin, Germany.

Since 1962, we have been developing, manufacturing and distributing laboratory instruments around the world. With more than 120 employees we are the oldest German manufacturer of instruments for HPLC, FPLC, simulated moving bed chromatography (SMB) and osmometry. Our product portfolio ranges from most compact analytical HPLC systems to SMB systems for the extraction of up to 1.000 kg of pure substance per year.

Products and services offered include state of the art HPLC/UHPLC systems, biochromatography systems (FPLC), solutions for the purification of value products and fine chemicals, LC columns, and method development.

The source of our success are numerous world's firsts that have won more than 20 awards for innovation. We strive to grow continuously, to expand our expertises and to discover new market opportunities.

Quality and environmental management

The KNAUER quality management system according to DIN EN ISO 9001 makes sure that we continuously produce products in the best quality possible. As a company, we have to prove ourselves every day in a highly competitive market. Therefore, we can only be successful if every employee contributes his share. Your satisfaction with the quality of our products and services is the key to our success.

In addition to our quality management system, KNAUER contributes to the conservation of a healthy environment by basing our work on an environmental management system according to DIN EN ISO 14001.

Starting with the development of a new product, our designing engineers are bound to use long-lasting materials which allow low maintenance time intervals and minimal downtime. Furthermore, a high energy efficiency and material efficiency in the production process and during the use of our products are important to us. Finally, the products should be able to be disposed of in an environmentally compatible way.



Stefan Leiser and Dr. Serge Mell receive the award from popular TV presenter and mentor Ranga Yogeshwar.

Every single part and original spare part corresponds to our strict criteria for construction, material and safety. This is guaranteed by our quality assurance system. And if your products need replacement or repair, it will be as good as a new with original spare parts from KNAUER.

The quality management system and the working procedures that come with it are being updated on a regular basis. All KNAUER employees know the procedures of the quality management system and its implementation. Continuous improvement is one of our goals and overall basic management principles.

Your remarks and suggestions are a substantial part of our daily work. They help us become even more precise, faster and more customer friendly. Please let us know what your suggestions are and what we can do better.



Alexandra Knauer (CEO and Owner)



Please do not hesitate to contact our quality management team at quality@knauer.net!

AZURA HPLC-Systems

AZURA Educational system	1
AZURA Compact LC	2
AZURA Compact LC with UV and RI-Detection	3
AZURA HPLC Plus system UV	4
AZURA HPLC Plus system multichannel UV	5
AZURA UHPLC system multichannel UV	6

AZURA FPLC-Systems

AZURA Compact Bio LC 10	7
AZURA Compact Bio LC 50	8
AZURA Lab Bio LC 10 LPG	9
AZURA Lab Bio LC 10/50 HPG	10
AZURA Lab Plus Bio LC	11
AZURA Pilot Bio LC 100/250/500 LPG	12
AZURA Pilot Bio LC 100/250/500 HPG	13

AZURA Prep. LC-Systems

AZURA Compact Prep LC 50	14
AZURA Lap Prep LC 50	15
AZURA Pilot Prep LC 100/250/500 LPG	16
AZURA Pilot Prep LC 100/250/500/1000 HPG	17
AZURA Pilot Prep LC 100/250 HPG multicolumn auto. inject	18

Conversion tables

Dimensions conversion chart	19
Temperature conversion chart	19
Pressure conversion chart	19
Tubing volume/Length conversion chart	19

AZURA Educational system

Isocratic analytical HPLC System with UV-Detection

The AZURA Compact HPLC isocratic educational system is a small complete analytical isocratic HPLC system. Due to its compact dimensions, the system fits onto every laboratory bench.

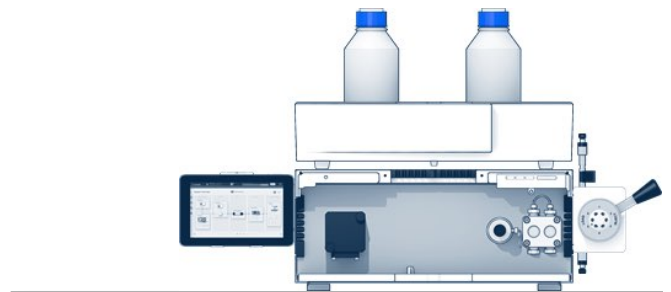
The AZURA Compact HPLC isocratic is based on the multifunctional AZURA ASM 2.1L and contains two integrated modules and a manual injecton valve that is fixed to the side of the system. The integrated modules are a pump and an UV/VIS detector with one variable wavelength. A 10 mm flow cell is included in the package.

The system comes with an eluent tray for safe storage of up to 6 bottles. The column can be attached anywhere to the system via magnetic clip. A leak sensor and the tubing guidance, as well as the AZURA Mobile Control with touch screen facilitate ensure a safe and user friendly usage.

Modern design with completely demountable fronts and exchangeable, optionally colored side panels turn the system into a visual highlight.

Key features

- Complete isocratic analytical HPLC system that needs very little bench space
- UV/VIS detector with one variable wavelength
- Pump unit with pressure sensor for a low pulsation eluent supply (max. 400 bar)
- AZURA Mobile Control allows direct control and data recording of all integrated modules
- Complete software package AZURA Mobile Control
- Tablet PC
- Tubing scheme
- Application note
- RP-Column
- Introduction to operation of software and hardware via short movies



Ordering details:

671101104 Isocratic analytical HPLC System with UV-Detection and injection valve

AZURA Compact LC

Isocratic analytical HPLC System with UV-Detection

The AZURA Compact HPLC isocratic system is a small complete analytical isocratic HPLC system. Due to its compact dimensions, the system fits onto every laboratory bench.

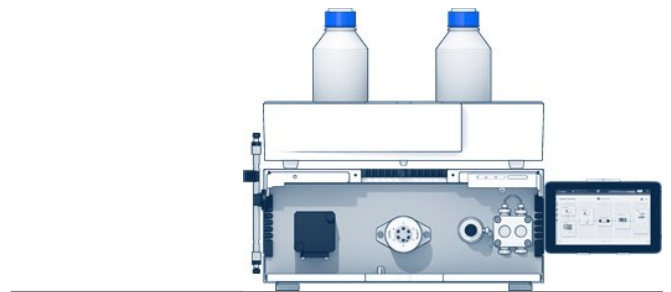
The AZURA Compact HPLC isocratic is based on the multifunctional AZURA ASM 2.1L and contains three integrated modules; an UV-detector UVD 2.1S, a pump P4.1S and a electric injection valve.

The system comes with an eluent tray for safe storage of up to 6 bottles. The column can be attached anywhere to the system via magnetic clip. A leak sensor and the tubing guidance as well as the AZURA Mobile Control unit with touch screen, facilitate the safe and user friendly usage.

Modern design with completely demountable fronts turn the system into a visual highlight.

Key features

- Complete isocratic analytical HPLC system that needs very little bench space
- UV/VIS detector with one variable wavelength
- Pump unit with pressure sensor for a low pulsation eluent supply (max. 400 bar)
- AZURA Mobile Control allows direct control and data recording of all integrated modules
- Leakage protection
- Complete software package AZURA Mobile Control
- PC with Monitor and ClarityChrom software
- Tubing scheme
- Application note
- Introduction to operation of software and hardware via short movies



Ordering details:

672101104 Isocratic analytical HPLC System with UV-Detection and electric injection valve

AZURA Compact LC with UV and RI-Detection

Isocratic analytical HPLC System with UV and RI-Detection

The AZURA Compact HPLC isocratic system is a small complete analytical isocratic HPLC system. Due to its compact dimensions, the system fits onto every laboratory bench.

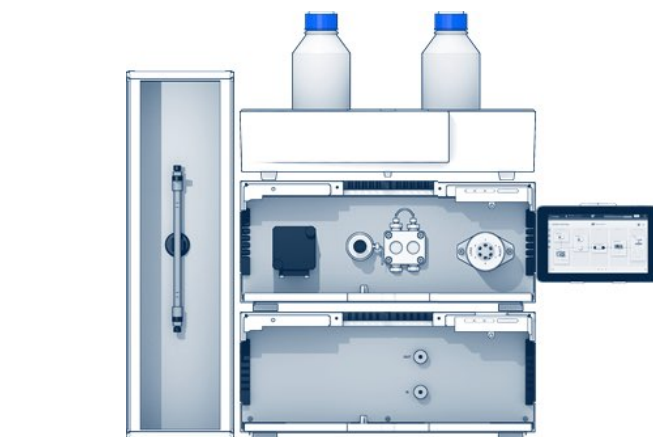
The AZURA Compact HPLC isocratic is based on the multifunctional AZURA element ASM 2.1L and contains three integrated modules. A UV-detector UVD 2.1S, a pump P4.1S and a electric injection valve.

The system comes with an eluent tray for safe storage of up to 6 bottles. The column can be attached anywhere to the system via magnetic clip. A leak sensor and the tubing guidance as well as the AZURA Mobile Control unit with touch screen, facilitate the safe and user friendly usage.

Modern design with completely demountable fronts turn the system into a visual highlight.

Key features

- Complete isocratic analytical HPLC system that needs very little bench space
- UV/VIS detector with one variable wavelength
- RI-Detection with temperature controlled optical bench
- Pump unit with pressure sensor for a low pulsation eluent supply (max. 400 bar)
- AZURA Mobile Control unit allows direct control and data recording of all integrated modules
- Complete software package AZURA Mobile Control
- PC with Monitor and ClarityChrom software
- Introduction to operation of software and hardware via short movies
- Mobile Control for maintenance and diagnostics
- Tubing scheme
- Application note
- Leakage protection



Ordering details:

672131200 Isocratic analytical HPLC System with UV / RI-Detection and electric injection valve

AZURA HPLC Plus system UV

Analytical HPG/LPG configuration with UV detection

This system features a AZURA P 6.1L HPG/LPG pump, an Autosampler 3950, a column thermostat CT 2.1, a UVD 2.1L UV/VIS detector with 1-variable UV measuring channels from 190 - 750 nm, as well as a Tablet PC with AZURA Mobile Control.

It is the standard system with a backpressure range of 700 bar. It perfectly fits the demanding needs of a method development system, as well as the robust fitness of a routine analysis machine.

The P6.1L with a HPG configuration features a solvent selection valve to set up up to 4 solvents to the system of which two can be blended simultaneously. The internal degassing unit will prevent air bubbles in the system. Every P 6.1L comes with an attached mixing chamber, which can be changed to a larger volume depending on the applications needs.

The P6.1L with a LPG configuration features a new LPG valve for the most reise blending efficiency. The internal degassing unit will prevent air bubbles in the system. Every P 6.1L comes with an attached mixing chamber, which can be changed to a larger volume depending on the applications needs.

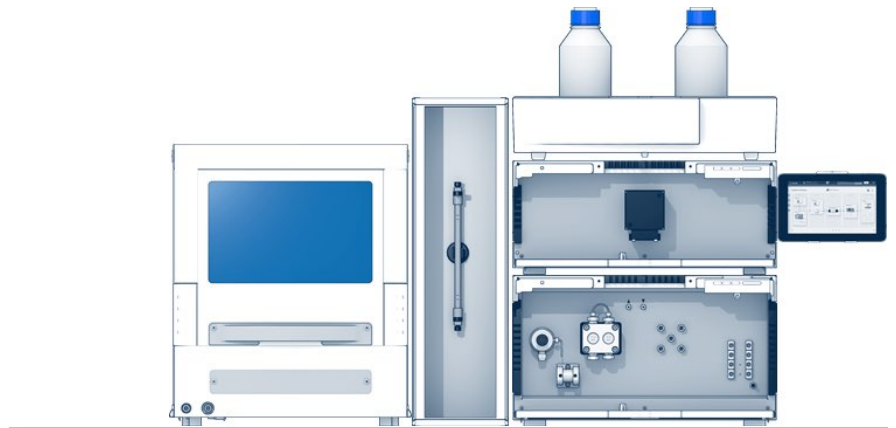
The UVD 2.1L comes with an installed deuterium lamp which covers a wavelength range from 190 to 750 nm. It is a competitively priced HPLC for routine HPLC applications including fast LC methods.

The Autosampler 3950 can inject 0.1 – 5000 µl to have a large flexibility. Using standard vials or two microtiter plates will give you a maximum sample capacity of up to 768 samples or 96 vials.

The AZURA CT 2.1 is suitable for column thermostatisation above and below room temperature. The instrument operates with a microprocessor controlled Peltier element for exact temperature settings.

Key features

- Complete gradient analytical HPLC system
- Variable single wavelength 1-channel UV/VIS Detector
- Pump unit with pressure sensor for a low pulsation eluent supply (max. 700 bar)
- AZURA Mobile Control unit allows direct control of all integrated modules
- Introduction to operation of software and hardware via short movies
- Complete software package ClarityChrom
- Mobile Control for maintenance and diagnostics
- Leakage protection
- PC with Monitor
- Tubing scheme
- Application note



Ordering details:

986203200	Binary HPLC System with UVD 2.1L UV-Detector, Autosampler, column thermostat and software
986202200	Quaternary HPLC System with UVD 2.1L UV-Detector, Autosampler, column thermostat and software
980202200	Quaternary HPLC System with UVD 2.1L UV-Detector, Optimas Sampler, column thermostat and software

AZURA HPLC Plus system multichannel UV

Analytical HPG/LPG configuration with multichannel UV detection

This system features a AZURA P 6.1L HPG/LPG pump, an Autosampler 3950, a column thermostat CT 2.1, a MWD or DAD 2.1L UV/VIS detector with 8-variable UV measuring channels from 190 - 750 nm, as well as a Tablet PC with AZURA Mobile Control.

It is the standard system with a backpressure range of 700 bar. It perfectly fits the demanding needs of a method development system, as well as the robust fitness of a routine analysis machine.

The P6.1L with a HPG configuration features a solvent selection valve to set up to 4 solvents to the system of which two can be blended simultaneously. The internal degassing unit will prevent air bubbles in the system. Every P 6.1L comes with an attached mixing chamber, which can be changed to a larger volume depending on the applications needs.

The P6.1L with a LPG configuration features a new LPG valve for the most precise blending efficiency. The internal degassing unit will prevent air bubbles in the system. Every P 6.1L comes with an attached mixing chamber, which can be changed to a larger volume depending on the applications needs.

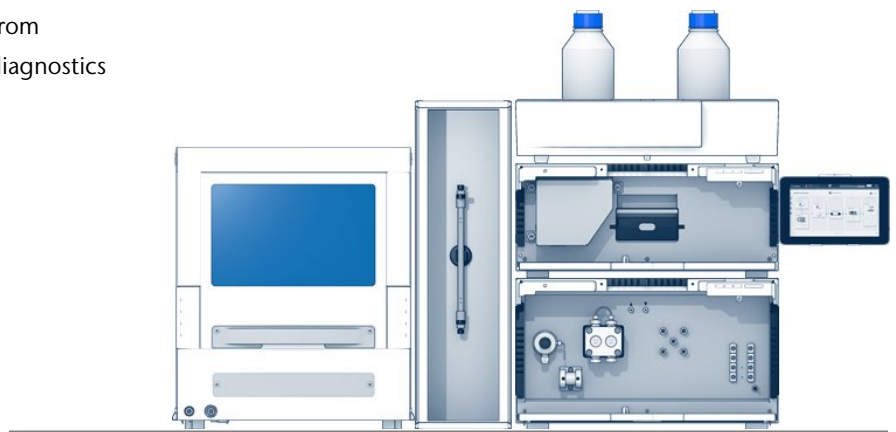
The DAD 2.1L features a novel light path and flow cell architecture with improved handling and excellent performance. The frontal lamp and cell change ensures easy and secure maintenance. The temperature controlled optical bench minimizes signal drift. The wide flow cell selection allows the DAD 2.1L to be easily adapted to your needs.

The Autosampler 3950 can inject 0.1 – 5000 µl to have a large flexibility. Using standard vials or two microtiter plates will give you a maximum sample capacity of up to 768 samples or 96 vials.

The AZURA CT 2.1 is the new price attractive basic column thermostat. It is suitable for column thermostatzation above and below room temperature. The instrument operates with a microprocessor controlled Peltier element for exact temperature settings.

Key features

- Complete gradient analytical HPLC system
- Variable multichannel UV/VIS Detector (or DAD)
- Pump unit with pressure sensor for a low pulsation eluent supply (max. 700 bar)
- AZURA Mobile Control unit allows direct control of all integrated modules
- Introduction to operation of software and hardware via short movies
- Complete software package ClarityChrom
- Mobile Control for maintenance and diagnostics
- Leakage protection
- PC with Monitor
- Tubing scheme
- Application note



Ordering details:

986503200	Binary HPLC System with DAD 2.1L UV-Detector, Autosampler, column thermostat and software
986502200	Quaternary HPLC System with DAD 2.1L UV-Detector, Autosampler, column thermostat and software
986403200	Binary HPLC System with MWD 2.1L UV-Detector, Autosampler, column thermostat and software
986402200	Quaternary HPLC System with MWD 2.1L UV-Detector, Autosampler, column thermostat and software
980502200	Quaternary HPLC System with DAD 2.1L UV-Detector, Optimas Sampler, column thermostat and software

AZURA UHPLC system multichannel UV

Analytical HPG/LPG configuration with UV detection

This system features a AZURA P 6.1L HPG/LPG pump, an Autosampler 3950, a column thermostat CT 2.1, a DAD 2.1L or DAD 6.1L UV/VIS detector with 8-variable UV measuring channels from 190 - 750 nm (190 - 1000 nm with DAD 6.1L), as well as a Tablet PC with AZURA Mobile Control.

It is the UHPLC system with a backpressure range of 1000 bar. It perfectly fits the demanding needs of a method development system, as well as the robust fitness of a routine analysis machine.

The P6.1L with a HPG configuration features a solvent selection valve to set up to 4 solvents to the system of which two can be blended simultaneously. The internal degassing unit will prevent air bubbles in the system. Every P 6.1L comes with an attached mixing chamber, which can be changed to a larger volume depending on the applications needs.

The P6.1L with a LPG configuration features a new LPG valve for the most precise blending efficiency. The internal degassing unit will prevent air bubbles in the system. Every P 6.1L comes with an attached mixing chamber, which can be changed to a larger volume depending on the applications needs.

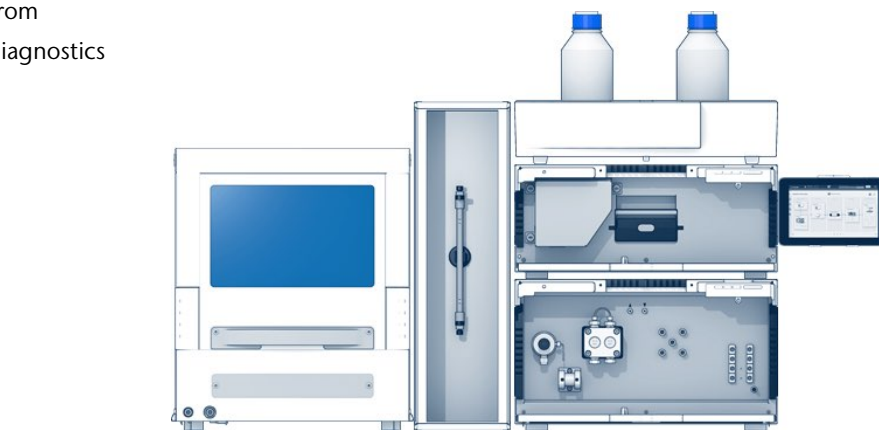
The DAD 6.1L features a novel light path and flow cell architecture with improved handling and excellent performance. The frontal lamp and cell change ensures easy and secure maintenance. The temperature controlled optical bench minimizes signal drift. The wide flow cell selection allows the DAD 6.1L to be easily adapted to your needs.

The Autosampler 3950 can inject 0.1 – 5000 µl to have a large flexibility. Using standard vials or two microtiter plates will give you a maximum sample capacity of up to 768 samples or 96 vials.

The AZURA CT 2.1 is the new price attractive basic column thermostat. It is suitable for column thermostatisation above and below room temperature. The instrument operates with a microprocessor controlled Peltier element for exact temperature settings.

Key features

- Complete gradient analytical HPLC system
- Variable multichannel UV/VIS Detector (or DAD)
- Pump unit with pressure sensor for a low pulsation eluent supply (max. 1000 bar)
- AZURA Mobile Control unit allows direct control of all integrated modules
- Introduction to operation of software and hardware
- Complete software package ClarityChrom
- Mobile Control for maintenance and diagnostics
- Leakage protection
- PC with Monitor
- Capillary scheme
- Application note



Ordering details:

998503200	Binary UHPLC System with DAD 2.1L UV-Detector, Autosampler, column thermostat and software
998502200	Quaternary UHPLC System with DAD 2.1L UV-Detector, Autosampler, column thermostat and software
999603201	Binary UHPLC System with DAD 6.1L UV-Detector, Autosampler cool/heat, column thermostat and OpenLAB software
999602201	Quaternary UHPLC System with DAD 6.1L UV-Detector, Autosampler cool/heat, column thermostat and OpenLAB software

AZURA Compact Bio LC 10

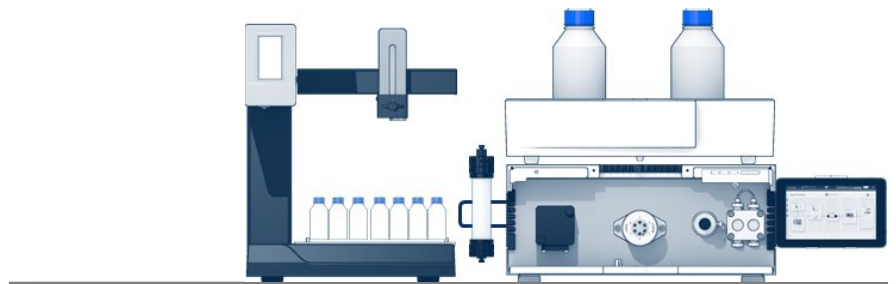
AZURA Compact Bio LC 10

for easy size exclusion chromatography

The AZURA Compact Bio FPLC 10 system was designed for easy and isocratic FPLC applications like size exclusion chromatography. Thanks to its compact design and user friendly FPLC software PurityChrom® Bio, the system offers outstanding performance and ease of use. Inject your sample via the injection valve and detect your substances using the the integrated UV detector. The fraction collector collects your purified fractions reliably. Pre-designed methods are included in the software and can be easily adapted by changing the column volume. We recommend preparative and semipreparative columns. For analytical and micropreparative scale columns please use our pump P6.1L (APH60EB).

Key features

- Injection valve for sample injection
- Variable single wavelength UV-detector (190 -500 nm)
- Flow rate: 0,001 - 10 ml/min; 0.2 - 5.0 ml/min (recommended)
- Fraction collector
- 100% compatible to all biochromatography columns
- PurityChrom® Bio software
- Maximum operating pressure: 150 bar
- Mobile Control for maintenance and diagnostics



Ordering details:

672101122 Isocratic FPLC-system with UV-detector, injection valve, fraction collector and PurityChrom software

AZURA Compact Bio LC 50

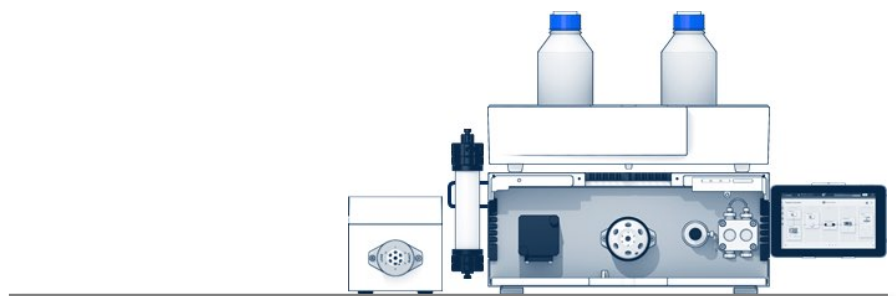
AZURA Compact Bio LC 50

for affinity chromatography

The AZURA Compact Bio LC 50 system was designed for isocratic affinity chromatography applications. The system offers outstanding performance and ease of use thanks to its compact design and user friendly FPLC software PurityChrom® Bio. Select your sample, your washing and elution buffer using the selection valve. Your proteins of interest are detected by UV and automatically collected via the fractionation valve. Pre-designed methods and cleaning steps are included in the software and can be easily adapted by changing the column volume.

Key features

- Automatic sample/ buffer selection valve for up to 6 buffers or samples (e.g. 1. washing buffer, 2. elution buffer and 4 samples or alternatively 1. washing buffer, 2. elution buffer, 3. sample, 4. CIP solution, 5. storage solution, 6. water)
- Fraction valve (6 ports) for fractionation
- Flow rate: 0.01 - 50 ml/min; 0.5 - 40 ml/min (recommended)
- Variable single wavelength UV-detector (190 -500 nm)
- 100% compatible to all biochromatography columns
- PurityChrom® Bio software
- Maximum operating pressure: 150 bar
- Mobile Control for maintenance and diagnostics



Ordering details:

614101112 Isocratic FPLC-system with UV-detector, injection valve, fraction collector valve and PurityChrom software

AZURA Lab Bio LC LPG

AZURA Lab Bio LC 10 LPG

for more complex FPLC applications

AZURA Lab Bio LC 10 is a gradient system for more complex purification of biomolecules on a laboratory scale. It is designed and optimized for all FPLC applications like size exclusion, ion exchange and affinity chromatography.

All system modules can be freely exchanged and further ones can be added optionally, to find the best configuration for each purification task.

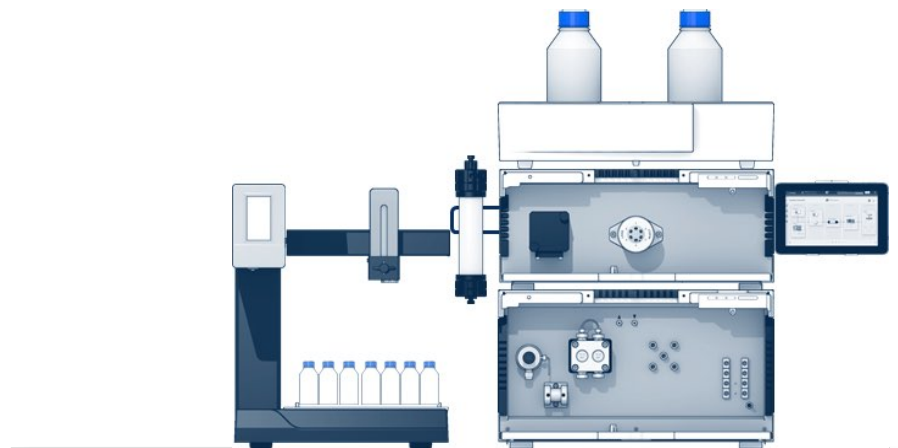
The system proposal consists of a biocompatible buffer pump equipped with the possibility to perform a gradient between four buffers. Monitor your gradient over the whole run using the conductivity monitor. Inject your sample via the injection valve and detect your substances using the integrated single wavelength UV detector. The fraction collector collects your purified fractions reliably. The system is controlled via user friendly FPLC software PurityChrom® Bio. This software offers a high flexibility in method development and provides you with complete control over your run. Pre-designed methods are included in the software and can be easily adapted by changing the column volume.

Key features

- Complete gradient system for all FPLC applications
- Variable single wavelength UV-detector
- Conductivity monitoring
- Gradient out of 4 buffers
- Flowrate up to 10 ml/min
- Fraction collector
- 100% compatible to all biochromatography columns
- PurityChrom® Bio software
- Maximum operating pressure: 150 bar
- Mobile Control for maintenance and diagnostics

Optional features

- Multiple buffer & sample selection
- Sample pump
- PH measurement
- Column Selection
- Airsensor
- Delta pressure measurement
- Autosampler



Ordering details:

872102122	AZURA Lab Bio FPLC 10
872112122	AZURA Lab Bio FPLC 10 with conductivity monitor
872122122	AZURA Lab Bio FPLC 10 with conductivity and ph monitor

AZURA Lab Bio LC HPG

AZURA Lab Bio LC 10/50 HPG

for more complex FPLC applications

AZURA Lab Bio LC 50 is a gradient system for more complex purification of biomolecules on a laboratory scale. It is designed and optimized for all FPLC applications like size exclusion, ion exchange and affinity chromatography.

All system modules can be freely exchanged and further ones can be added optionally, to find the best configuration for each purification task.

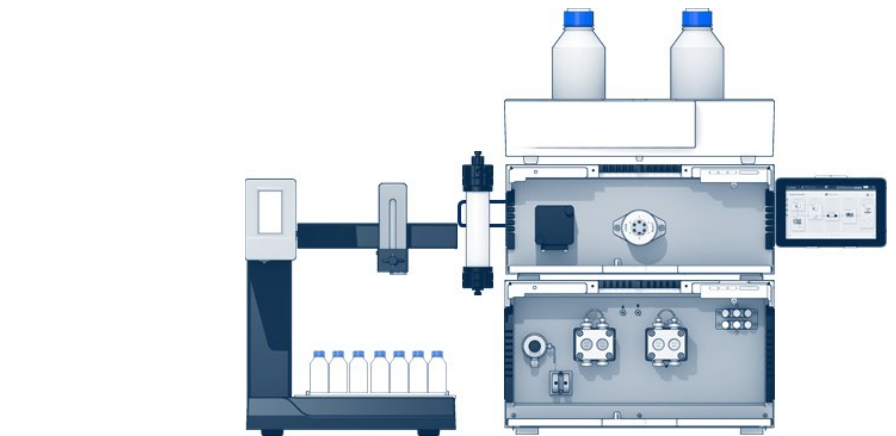
The system proposal consists of a biocompatible buffer pump equipped with two pump heads to perform a gradient between two buffers. Monitor your gradient over the whole run using the conductivity monitor. Inject your sample via the injection valve and detect your substances using the integrated single wavelength UV detector. The fraction collector collects your purified fractions reliably. The system is controlled via user friendly FPLC software PurityChrom® Bio. This software offers a high flexibility in method development and provides you with complete control over your run. Pre-designed methods are included in the software and can be easily adapted by changing the column volume.

Key features

- Complete gradient system for all FPLC applications
- Variable single wavelength UV-detector
- Conductivity monitoring
- Gradient out of 2 buffers, 4 buffer inlets
- Flow rate up to 50 ml/min
- Fraction collector for fractionation
- 100% compatible to all biochromatography columns
- PurityChrom® Bio software
- Maximum operating pressure: 150 bar
- Mobile Control for maintenance and diagnostics

Optional features

- Multiple buffer & sample selection
- Sample pump
- PH measurement
- Column Selection
- Airsensor
- Delta pressure measurement
- Autosampler



Ordering details:

872113122	AZURA Lab Bio FPLC 10 with conductivity monitor
842113122	AZURA Lab Bio FPLC 50 with conductivity monitor
872123122	AZURA Lab Bio FPLC 10 with conductivity and ph monitor
842123122	AZURA Lab Bio FPLC 50 with conductivity and ph monitor

AZURA Lab Plus Bio LC

for more complex FPLC applications

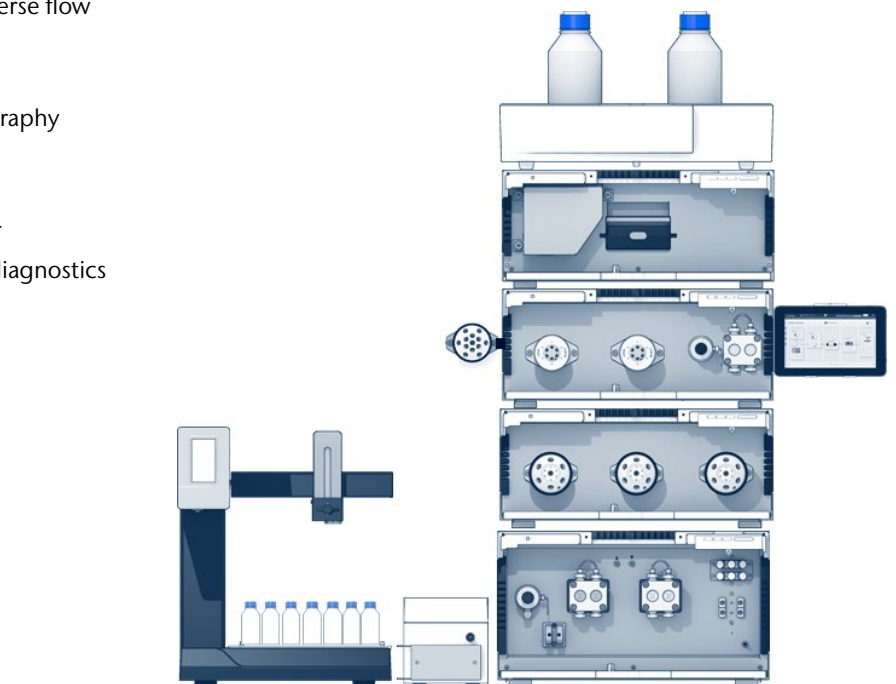
AZURA Lab Bio LC 50 is a gradient system for more complex purification of biomolecules on a laboratory scale. It is designed and optimized for all FPLC applications like size exclusion, ion exchange and affinity chromatography.

All system modules can be freely exchanged and further ones can be added optionally, to find the best configuration for each purification task.

The system proposal consists of a biocompatible buffer pump equipped with two pump heads to perform a gradient between two buffers. Select between 12 buffers and 6 samples. Monitor your gradient over the whole run using the conductivity monitor. Inject your sample via the injection valve or sample pump. Use up to 5 columns and reverse the flow using the column selection valve. Detect your substances using the integrated multi wavelength UV detector. The fraction collector collects your purified fractions reliably. The system is controlled via user friendly FPLC software PurityChrom® Bio. This software offers a high flexibility in method development and provides you with complete control over your run. Pre-designed methods are included in the software and can be easily adapted by changing the column volume.

Key features

- Complete gradient system for all FPLC applications
- Multi wavelength UV-detector
- Conductivity monitoring
- Gradient out of 2 buffers, 12 buffer inlets and 6 sample inlets
- Flow rate up to 50 ml/min
- Sample injection via injection valve or sample pump
- Column selection for 5 columns & reverse flow option
- Fraction collector for fractionation
- 100% compatible to all biochromatography columns
- PurityChrom® Bio software
- Maximum operating pressure: 150 bar
- Mobile Control for maintenance and diagnostics



Ordering details:

844423122 AZURA Lab Plus Bio LC 50 HPG with conductivity monitor

AZURA Pilot Bio LC LPG

AZURA Pilot Bio LC 100/250/500 LPG

AZURA Pilot FPLC system for scale-up and process applications

AZURA Pilot Bio FPLC 100/250/500 was designed for scale-up and process applications in laboratory scale. The AZURA Pilot FPLC system is optimized for the purification of milligram to gram samples.

All system modules can be freely exchanged and further ones can be added optionally, to find the best configuration for each purification task.

The system proposal consists of a biocompatible buffer pump equipped with the possibility to perform an accurate binary or ternary gradient using the attached LPG valve block. Monitor your gradient over the whole run using the conductivity monitor. Inject your sample via the buffer pump and the integrated injection valve. The wavelength to detect your sample is freely selectable. The fraction collector collects your purified fractions reliably. The system is controlled via user friendly FPLC software PurityChrom® Bio. This software offers a high flexibility in method development and provides you with complete control over your run. Pre-designed methods are included in the software and can be easily adapted and upscaled by changing the column volume.

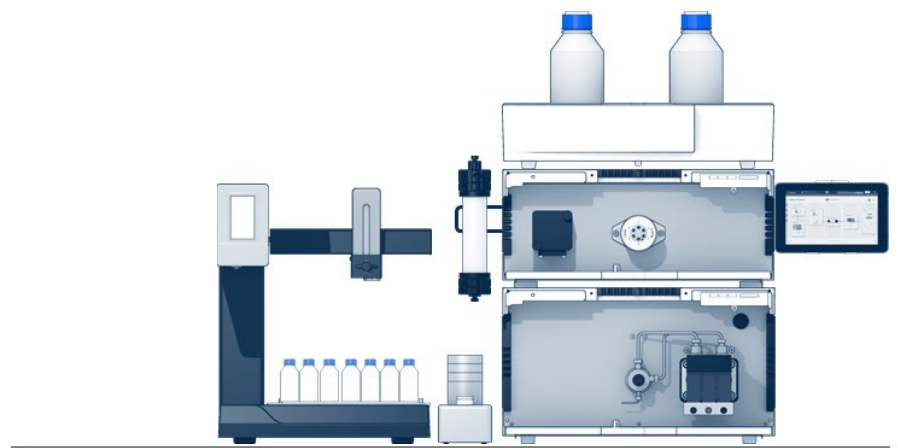
The system is designed in different tubing diameter.

Key features

- Complete low pressure gradient FPLC system for purification of mg and gram samples
- variable single wavelength UV-detector (190 -500 nm)
- optional conductivity monitoring with optional pH measurement
- flow rate: 0.1-100 ml/min; 0.2 - 80 ml/min (recommended)
- sample injection via sample pump up to 50 ml/min and loop
- Fraction collector for fractionation
- 100% compatible to all biochromatography FPLC columns
- PurityChrom® Bio software
- Mobile Control for maintenance and diagnostics

Optional features

- Multiple buffer & sample selection
- Sample pump
- PH measurement
- Column Selection
- Airsensor
- Delta pressure measurement
- Autosampler



Ordering details:

852102122	AZURA Pilot Bio FPLC 100 LPG with 1/16" tubing
842102122	AZURA Pilot Bio FPLC 250 LPG with 1/8" tubing
832102122	AZURA Pilot Bio FPLC 500 LPG with 1/4" tubing
852112122	AZURA Pilot Bio FPLC 100 LPG with 1/16" tubing with conductivity monitor
842112122	AZURA Pilot Bio FPLC 250 LPG with 1/8" tubing with conductivity monitor
832112122	AZURA Pilot Bio FPLC 500 LPG with 1/4" tubing with conductivity monitor

AZURA Pilot Bio LC HPG

AZURA Pilot Bio LC 100/250/1000 HPG

AZURA Pilot FPLC system for scale-up and process applications

AZURA Pilot Bio LC 100 was designed for scale-up and process applications in laboratory scale. The AZURA Pilot FPLC system is optimized for the purification of milligram to gram samples.

All system modules can be freely exchanged and further ones can be added optionally, to find the best configuration for each purification task.

The system proposal consists of two biocompatible buffer pumps to perform gradient between two buffers. Monitor your gradient over the whole run using the conductivity monitor. Inject your sample via the sample pump and the integrated injection valve. The wavelength to detect your sample is freely selectable. The fraction collector collects your purified fractions reliably. The system is controlled via user friendly FPLC software PurityChrom® Bio. This software offers a high flexibility in method development and provides you with complete control over your run. Pre-designed methods are included in the software and can be easily adapted

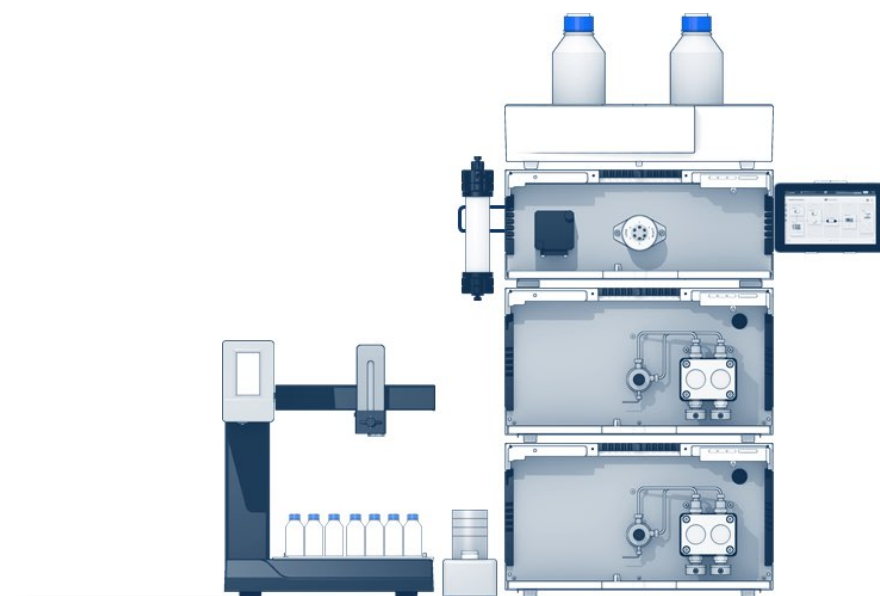
The system is designed in different tubing diameter.

Key features

- Complete high pressure gradient FPLC system for purification of mg and gram samples
- variable single wavelength UV-detector (190 -500 nm)
- optional conductivity monitoring with optional pH measurement
- flow rate: 0.1-100 ml/min; 0.2 - 80 ml/min (recommended)
- sample injection via sample pump up to 50 ml/min and injection valve
- Fraction collector for fractionation
- 100% compatible to all biochromatography columns
- PurityChrom® Bio software
- Mobile Control for maintenance and diagnostics

Optional features

- Multiple buffer & sample selection
- Sample pump
- PH measurement
- Column Selection
- Airsensor
- Delta pressure measurement
- Autosampler



Ordering details:

852103122	AZURA Pilot Bio FPLC 100 HPG with 1/16" tubing
842103122	AZURA Pilot Bio FPLC 250 HPG with 1/8" tubing
832103122	AZURA Pilot Bio FPLC 1000 HPG with 1/4" tubing
852113122	AZURA Pilot Bio FPLC 100 HPG with 1/16" tubing with conductivity monitor
842113122	AZURA Pilot Bio FPLC 250 HPG with 1/8" tubing with conductivity monitor
832113122	AZURA Pilot Bio FPLC 1000 HPG with 1/4" tubing with conductivity monitor

AZURA Compact Prep LC

AZURA Compact Prep LC 50

AZURA Pilot Prep. system for process applications

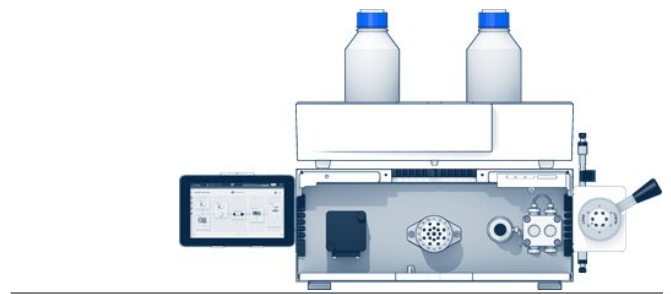
The AZURA Compact Prep LC 50 iso System with 50 ml pump head is a complete semi-preparative high pressure HPLC system. Due to its extremely compact dimensions, the system fits even onto the smallest laboratory bench.

The System consists of an Assistant ASM 2.1L with integrated pump, detector and fraction collector valve and comes with an eluent tray for safe storage of up to six bottles.

Injection is performed via a manual injection valve, which is fixed to the side of the detector. The column can be attached anywhere to the system via magnetic clip. Larger columns can be placed very easy on the KNAUER prism next to the system. Solvent bottles can be stored in an eluent tray on top of the system. A leak sensor and the capillary guidance as well as a tablet with Mobile Control. Modern design with completely demountable frontsturn the system into a visual highlight.

Key features

- Complete semi-preparative isocratic HPLC system that needs very little bench space
- UV/VIS detector with one variable wavelength
- Purification of several hundred mg
- Mobile Control allows direct control and monitoring of all integrated modules
- Leakage protection
- Compact and expandable
- Alternative PurityChrom enhanced fraction control



Ordering details:

711101114	AZURA Compact Prep LC 50 with 1/16" tubing, max. 150 bar. Fractionation with 16P valve and AZURA Mobile Control
711101112	AZURA Compact Prep LC 50 with 1/16" tubing, max. 150 bar. Fractionation with 16P valve and PurityChrom

AZURA Lab Prep LC 50

AZURA Pilot Prep. system for process applications

The AZURA Lab Prep LC 50 HPG System with 50 ml pumphead is a completely automated semi-preparative high pressure gradient HPLC system.

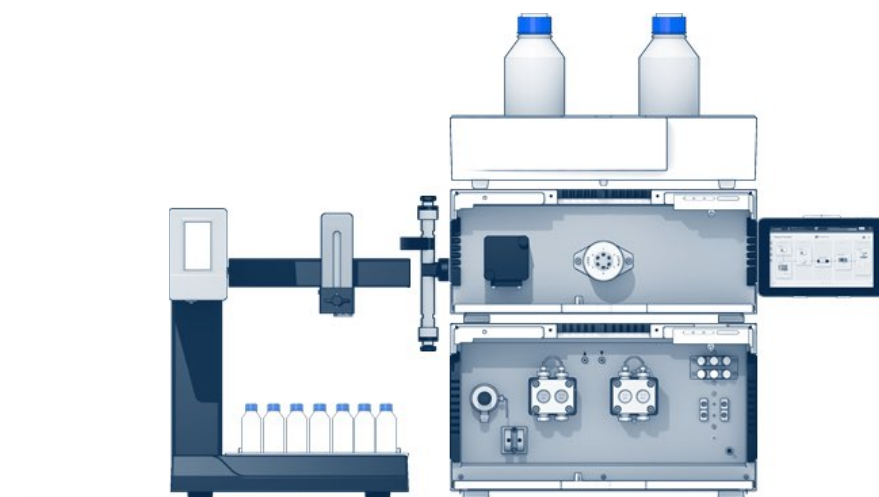
The System consists of a Pump P 6.1L, an UVD 2.1S, an electric injection valve, a Fraction Collector Foxy R1 and comes with an eluent tray for safe storage of up to six bottles. The pump can deliver flow in the range of 0.01 – 50 mL/min at pressures up to 300 bar. The AZURA binary Pump contains two identical high pressure pumps (300 bar up to 10 ml/min, 200 bar up to 50 ml/min), 2 × 2-channel inlet solvent selection valve and the new developed AZURA mixer, a low-volume mixing device.

The Foxy R1 fraction collector is ideal for applications including prep HPLC, protein, and peptide purifications. The column can be attached anywhere to the system via magnetic clip. Larger columns can be placed very easy on the KNAUER prism next to the system. Solvent bottles can be stored in an eluent tray on top of the system. Additional features like the leak sensor, the capillary guidance and a tablet with Mobile Control are increasing the security as well as the handling of the systems. Modern design with completely demountable fronts turn the system into a visual highlight.

The stackable elements of AZURA allow to create complex system solutions requiring only a minimum of space.

Key features

- Complete high pressure gradient HPLC system that needs very little bench space
- 2 × 2-channel inlet solvent selection valve
- Constant pressure operation mode
- UV/VIS detector with one variable wavelength
- Optional Mobile Control allows direct control and monitoring of all integrated modules
- Leakage protection
- Mobile Control for maintenance and diagnostics



Ordering details:

762103112 AZURA Lab Prep LC 50 with 1/16" tubing, max. 300 bar. Fractionation with 16P valve

762103122 AZURA Lab Prep LC 50 with 1/16" tubing, max. 300 bar. Fractionation with Foxy R1 Fraction collector

AZURA Pilot Prep LC LPG

AZURA Pilot Prep LC 100/250/500 LPG

AZURA Pilot Prep. system for process applications

The AZURA Pilot Prep LC 100/250/500 LPG system is a low pressure gradient (LPG) HPLC system for the purification of samples in the laboratory scale. The AZURA Preparative HPLC system is designed and optimized for the purification of milligram to gram samples. The system proposal consists of a preparative HPLC pump with ternary or binary LPG valve block and an Assistant ASM 2.1 L with UV-detector UVD 2.1S and a electric injection valve for injection of small sample volumes.

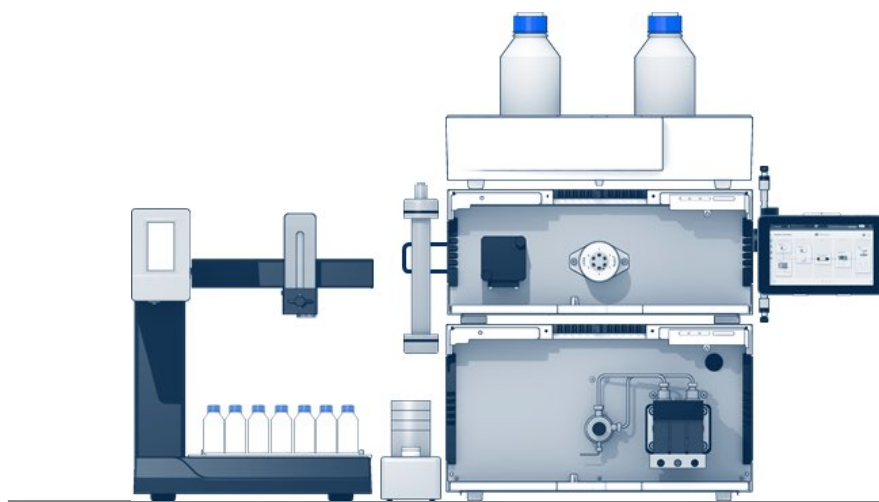
The AZURA P 2.1L pump covers a wide flow rate range and pressure capabilities. In the current setup, it supports max. pressures up to 400 bar at flow rates up to 100 ml/min. The integrated automatic recognition of the pump head with RFID technology allows fast adaptations of the pump for various applications. The LPG valve block enables the accurate formation of binary or ternary gradients.

The AZURA Preparative HPLC system comes with an eluent tray for safe storage of eluent bottles and an integrated leak management system with sensors.

VertexPlus AX columns (20 mm and 30 mm ID) can be attached with an optional AZURA mounting bracket at both sides of each AZURA element. A leak sensor and the capillary guidance as well as the optional control unit with touch screen facilitate the safe and user friendly operation. Modern design with completely demountable fronts and exchangeable colored side panels turn the system into a visual highlight.

Key features

- Complete low pressure gradient FPLC system for purification of mg and gram samples
- variable single wavelength UV-detector (190 -500 nm)
- optional conductivity monitoring with optional pH measurement
- flow rate: 0.1-500 ml/min
- Fraction collector for fractionation
- PurityChrom® Bio software
- Mobile Control for maintenance and diagnostics



Ordering details:

752102122	AZURA Pilot Prep LC 100 LPG with 1/16" tubing, max 400 bar, with Foxy R1
742102152	AZURA Pilot Prep LC 250 LPG with 1/8" tubing, max 200 bar, with Foxy R2
732102162	AZURA Pilot Prep LC 500 LPG with 1/8" tubing, max 100 bar, with Foxy R2

AZURA Pilot Prep LC HPG

AZURA Pilot Prep LC 100/250/500/1000 HPG

AZURA Pilot Prep. system for process applications

The AZURA Pilot Prep LC 100-1000 HPG system is a complete binary high pressure gradient (HPG) HPLC system for the purification of samples in the laboratory scale. It is designed and optimized for the purification of milligram to few gram samples. This system proposal consists of two preparative HPLC pumps, a UV/VIS detector and a freely customizable combination module.

The AZURA P 2.1L pump covers a wide flow rate range and pressure capabilities. In the current setup, it supports max. pressures up to 400 bar at flow rates up to 100 ml/min. The integrated automatic recognition of the pump head with RFID technology allows fast adaptations of the pump for various applications. The HPG setup enables the precise formation of binary gradients. Besides, ternary and quaternary gradients are accessible by integration of additional preparative pumps.

The AZURA UVD 2.1S represents a UV/VIS detector with a variable single wavelength for the detection of fast eluting peaks.

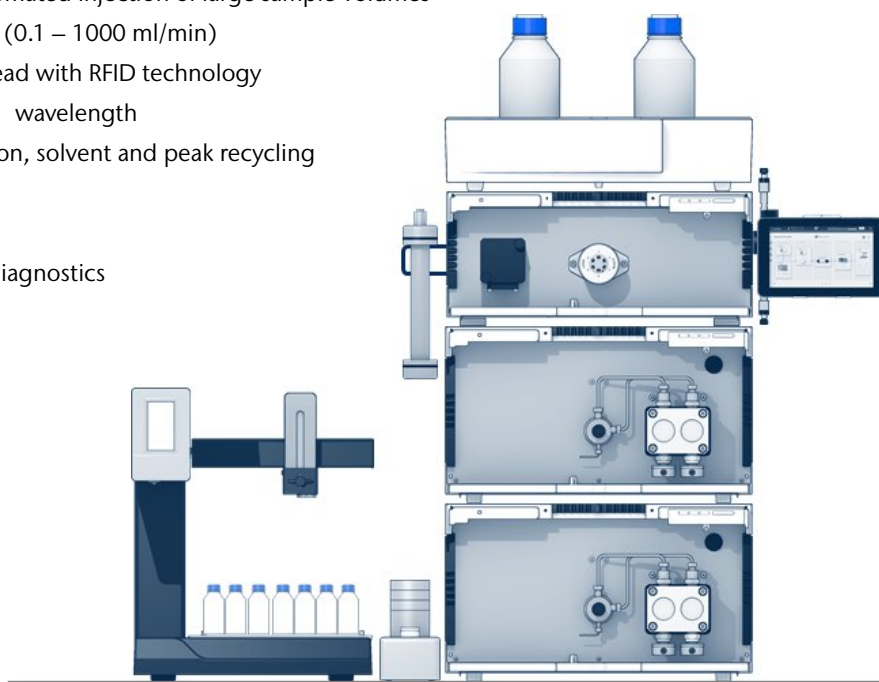
The system can easily expand by an AZURA assistant ASM 2.1L for preparative HPLC. The assistant module can be customized to individual requirements. For example, to enable automatic injection and fraction collection, the assistant module contains three integrated modules:

- Large sample volumes can be applied automatically via the integrated injection valve and feed pump.
- The integrated fractionation valve enables sample fractionation without an additional fraction collector.
- Under isocratic conditions, the consumption of solvent can be reduced by the use of solvent recycling at high flow rates. Peak recycling allows improving the resolution of a pair of closely eluting solutes (e.g., a pair of enantiomers) by automated repeated processing of the peaks.

The AZURA Preparative HPLC system comes with an eluent tray for safe storage of eluent bottles and an integrated leak management system with sensors.

Key features

- Complete high pressure gradient preparative HPLC system for purification of mg and gram samples
- Optional Mobile Control allows direct control and monitoring of all integrated modules
- Injection valve and feed pump for automated injection of large sample volumes
- Pump offers a wide range of flow rates (0.1 – 1000 ml/min)
- Automatic recognition of the pump head with RFID technology
- UV/VIS detector with a variable single wavelength
- Fractionation valve for fraction collection, solvent and peak recycling
- Leakage protection
- Customizable
- Mobile Control for maintenance and diagnostics



Ordering details:

752103122	AZURA Pilot Prep LC 100 HPG with 1/16" tubing, max 400 bar, with Foxy R1
742103162	AZURA Pilot Prep LC 250 HPG with 1/8" tubing, max 200 bar, with Foxy R2
732103162	AZURA Pilot Prep LC 500 HPG with 1/8" tubing, max 100 bar, with Foxy R2
722103162	AZURA Pilot Prep LC 1000 HPG with 1/4" tubing, max 50 bar, with Foxy R2

AZURA Pilot Prep LC 100/250 HPG multicolumn auto. inject

AZURA Pilot Prep. system for scale-up and process applications

The AZURA Pilot Prep LC multicolumn auto inject LC 100 is designed for scale-up and process applications in laboratory scale. The System is optimized for the purification of milligram to gram samples.

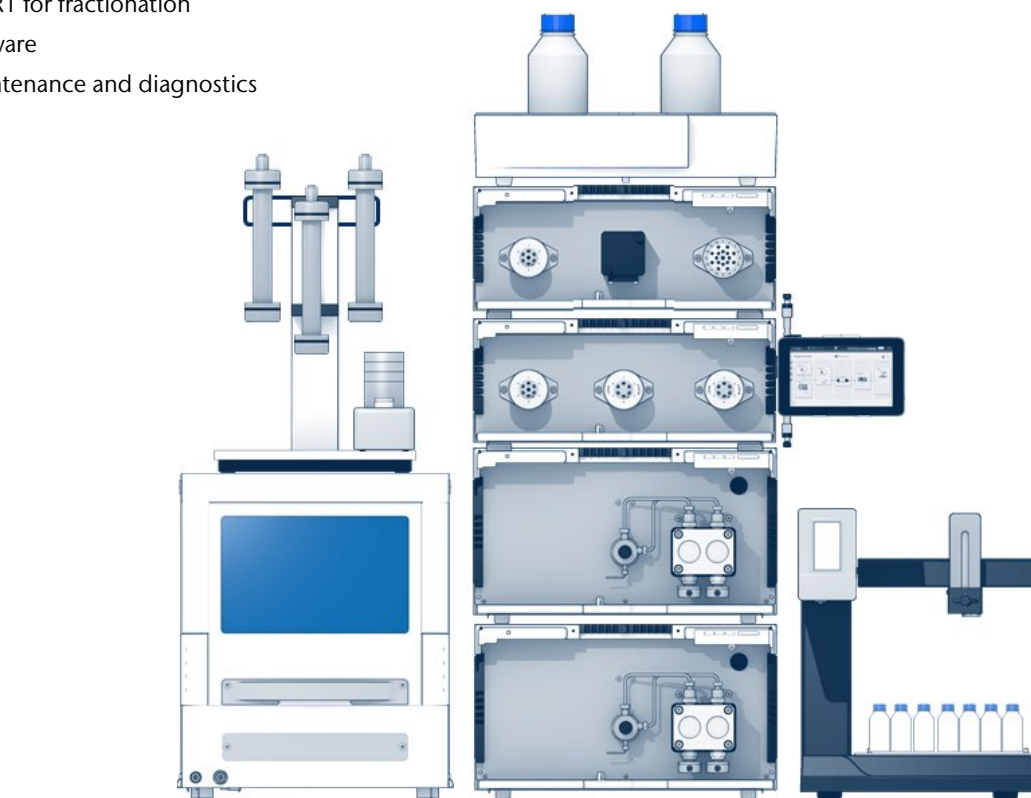
All system modules can be freely exchanged and further ones can be added optionally, to find the best configuration for each purification task.

The system proposal consists of two eluent pumps to perform gradient between two eluents. Inject your sample via the 3950 Prep Autosampler or the KNAUER VariLoop. The wavelength to detect your sample is freely selectable. The fraction collector collects your purified fractions reliably. The system is controlled via user friendly FPLC software PurityChrom® Bio. This software offers a high flexibility in method development and provides you with complete control over your run. Pre-designed methods are included in the software and can be easily adapted and upscaled by changing the column volume.

The system is designed for 1/8" capillaries and on request in 1/16".

Key features

- Complete high pressure gradient Prep-LC system for purification of mg and gram samples
- AZURA 3950 Prep Autosampler and KNAUER VariLoop 40 ml
- variable single wavelength UV-detector (190 -500 nm)
- optional multichannel wavelength detector
- column selection valve for up to 6 columns
- flow rate: 0.1-250 ml/min
- Fraction collector Foxy R1 for fractionation
- PurityChrom® Bio software
- Mobile Control for maintenance and diagnostics



Ordering details:

756103112	AZURA Pilot Prep LC 100 HPG multicolumn auto. inject with 1/16" tubing, with Foxy R1
746103152	AZURA Pilot Prep LC 250 HPG multicolumn auto. inject with 1/8" tubing, with Foxy R2

Dimensions conversion chart

mm	inches	inches	mm
0,10	.004"	1/32"	0,8
0,12	.005"	1/16"	1,6
0,15	.006"	1/8"	3,2
0,25	.010"	1/4"	6,4
0,40	.016"	3/8"	9,5
0,50	.020"	1/2"	12,7
0,75	.030"	1"	25,4
1,00	.040"		
1,50	.060"		
2,00	.080"		
4,60	.180"		
6,00	.236"		
6,40	.253"		
7,00	.276"		
10,00	.400"		

Tubing volume/Length conversion chart

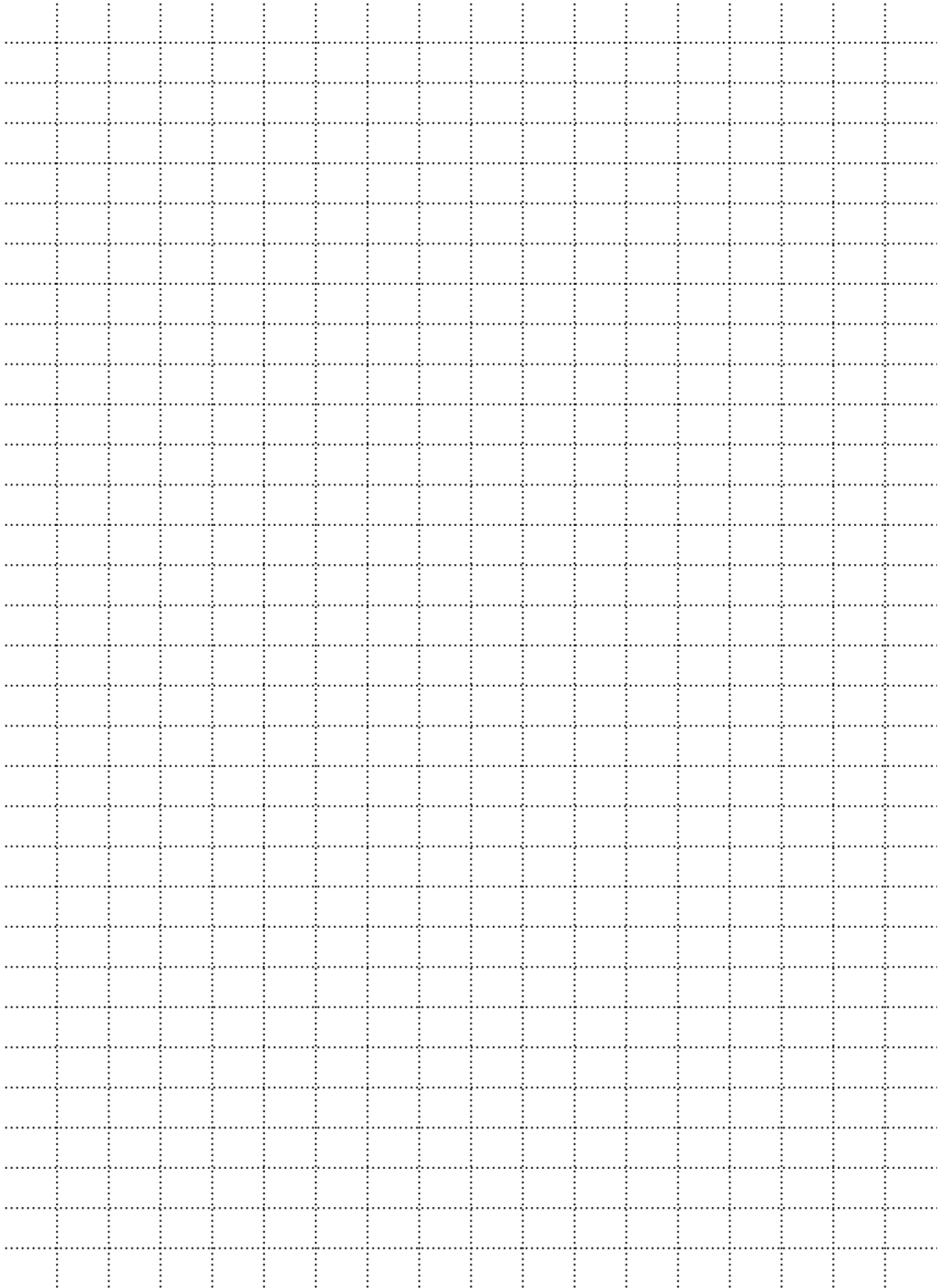
Tubing ID	µl/cm	µl/in
.004"	0,08	0,21
.005"	0.13	0.32
.010"	0.51	1.29
.015"	1.14	2.90
.020"	2.03	5.15
.025"	3.17	8.04
.030"	4.56	11.58
.040"	8.11	20.59
.060"	18.24	46.33
.070"	24.83	63.06
.085"	36.61	92.99

Pressure conversion chart

MPa	bar	psi
5	50	725
10	100	1.450
20	200	2.901
30	300	4.351
40	400	5.802
50	500	7.252
60	600	8.702
70	700	10.153
80	800	11.603
90	900	13.054
100	1.000	14.504
110	1.100	15.954
120	1.200	17.405
130	1.300	18.855
140	1.400	20.306
150	1.500	21.756
160	1.600	23.206
170	1.700	24.657
180	1.800	26.107
190	1.900	27.558
200	2.000	29.008

Temperature conversion chart

°C	°F	°C	°F	°C	°F
-40	-40	65	149	170	338
-35	-31	70	158	175	347
-30	-22	75	167	180	356
-25	-13	80	176	185	365
-20	-4	85	185	190	374
-15	5	90	194	195	383
-10	14	95	203	200	392
-5	23	100	212	205	401
0	32	105	221	210	410
5	41	110	230	215	419
10	50	115	239	220	428
15	59	120	248	225	437
20	68	125	257	230	446
25	77	130	266	235	455
30	86	135	275	240	464
35	95	140	284	245	473
40	104	145	293	250	482
45	113	150	302	255	491
50	122	155	311	260	500
55	131	160	320	265	509
60	140	165	329	270	518



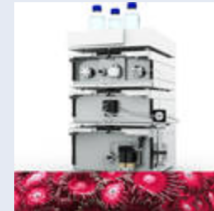
AZURA Analytical HPLC

AZURA Analytical is your complete solution for your daily HPLC routine. Flexible and adjustable to your needs.



AZURA Prep LC

AZURA Prep LC for large sample volumes, easy fraction collecting, peak and solvent recycling.



Contichrom

Purification equipment for multiple processes: batch chromatography, sequential multi column chromatography, SMB, CaptureSMB and the novel MCSGP principle in one system.



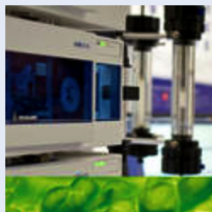
OEM products

KNAUER develops and manufactures for OEM customers products in the fields of liquid chromatography, dosing of liquids and flow-through detection.



AZURA Bio LC

AZURA Bio LC products offer biochromatography solutions for high resolution separations of proteins and other biomolecules.



Euroline

HPLC columns for almost every application: The Euroline family includes silica-based Eurospher I and II, RP Eurosil Bioselect, polymer-based Eurokat and chiral Eurocel columns.



HPLC · SMB · Osmometry

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