

# HPLC Made for Tomorrow

Agilent InfinityLab LC Series





## Efficient and Reliable Solutions for Any Budget



Agilent InfinityLab LC Solutions provide the broadest range of liquid chromatography options for any application and budget. With perfectly matched instruments, columns, and supplies, you can trust in their rugged quality and robust results. The InfinityLab family is designed to work together to improve your workflow, increase efficiency, and reduce operational costs.



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# Unlocking Advantages: Your Benefits with InfinityLab LC Solutions



#### **Daily assistance**

Agilent 1290 Infinity III LC and Agilent 1260 Infinity III LC come equipped with new, smart tools to help you simplify tedious manual tasks—from system and solvent management to sample tracking.



#### **Confidence in results**

With over 50 years of expertise in LC, you can trust the reliability of our instruments consistently top-rated by your peers.



#### Investment protection

Advance with ease, at ease. All 1290 and 1260 Infinity III LC-based instruments are compatible with the previous generation, allowing for seamless upgrades and technology refreshes as needed.



#### Sustainability

Optimize lab space and reduce water, solvent, and energy consumption, while minimizing waste. Agilent InfinityLab LC Solutions are certified by My Green Lab, providing you utmost transparency of the environmental footprint of each system.

#### The digital lab: The move is on.

Digital transformation of the laboratory is an evolution, and your success matters. Agilent can assist you in building a unified ecosystem for your lab, providing guidance and support every step of the way to make your vision of the digital lab a reality.



https://aglt.co/digital-lab

## Assisting with Your Daily Routines: Features That Keep You Up and Running

At Agilent, we're committed to assisting you in overcoming your liquid chromatography challenges and streamlining your daily tasks. Our 1290 and 1260 Infinity III LC systems are equipped with smart tools designed to simplify laborious manual processes, reduce unplanned system downtime, and enable you to maintain control of your LC from anywhere, anytime.

#### Assisted workflows

Discover a world of convenience, reduced errors, and heightened efficiency in your daily lab work. Agilent InfinityLab Assist offers:

- Customized assistance: Streamline solvent handling, task execution, and sample tracking. Whether automating routine tasks or receiving real-time system health updates, you can tailor your experience.
- Error reduction: Bid farewell to manual, error-prone activities. And if issues arise, follow the troubleshooting guide for swift problem solving.
- **Extended lifespan:** Regular maintenance routines prevent potential problems, prolonging your instrument's life. Novice scientists can rely on guided instructions.
- Seamless control: Monitor and manage your LC system effortlessly-directly on the system or remotely via PC or mobile devices.
- Backward compatibility: Existing 1290 and 1260 Infinity II LC systems can also benefit from the new Agilent InfinityLab Assist technology with a simple hardware upgrade.



Get assistance through intuitive instrument interactions.



Monitor instrument status from anywhere, anytime.

Watch assistance video now https://aglt.co/assistance-video





#### No more running dry

With Agilent InfinityLab Level Sensing, you can be confident that enough solvent is available for every run, reducing the burden of costly repeat analyses.



#### Safe sample data journeys

Your sample data can be linked seamlessly. Streamline sample handling and sample data linking throughout sample preparation and analysis directly at your lab bench with the Agilent Advanced Sample Linking (ASL) solution.

#### Place samples anywhere and have peace of mind

Say goodbye to vial position worries. With the Agilent InfinityLab Sample ID Reader, your 1290 or 1260 Infinity III Multisampler becomes even smarter. Simply add the Sample ID Reader, and your samples will be identified via QR codes on the vials.





Intelligent System Emulation Technology (ISET) facilitates seamless method transfer from any legacy HPLC or latest UHPLC methods.

Biocompatible material for use in

salt and extreme pH conditions.

biopharma and applications using high



Agilent BlendAssist Software automates buffer blending for consistent results while automating methods.



Agilent Buffer Advisor Software provides a fast and easy way to create pH and salt gradients.



BIO

**Bio-Inert**—metal-free components in the sample flow path ensure the integrity of your biomolecules.



Agilent Multipurpose Valve enables automation of functions like switching the mixer, flushing the filter, and purging to reduce manual interactions.

Besides these, there are many other features that help with your daily HPLC routine.

Download eBook https://aglt.co/5994-7524EN





### Achieve Confidence in Results

"It just never fails."

That's how users perceive the

From solvent delivery through sample injection to detection,

world's top-selling LCs from Agilent.

InfinityLab LCs deliver reliable and

robust performance—for highest confidence in your daily results and

business decisions.



Agilent LC instrumentation cited as most reliable in "Liquid Phase Separation Instruments & Trends" survey 2024

Bi-yearly survey commissioned by Agilent, conducted by Cell Associates in partnership with LCGC in 2012–2024. Agilent LC instrumentation have been named the most reliable since 2012.

#### Seamless instrument integration

When it comes to adding new instruments to the lab, no two paths are quite the same. Rest assured that Agilent will be with you every step of the way, so you can swiftly implement new technologies to their fullest potential.



### Ensure Smart Investments for Your Lab



Purchase an InfinityLab LC system and be confident that you have made the best possible investment for today and tomorrow. Our new 1290 Infinity III LC and 1260 Infinity III LCs are designed with upgradability in mind. New modules are always compatible with the previous version for seamless upgrade and technology refresh. What's more, you can mix modules to match your application needs.

### Make Your Lab More Sustainable

Agilent InfinityLab LC Solutions are designed to optimize lab space and reduce water, solvent, and energy consumption, while minimizing waste. By following My Green Lab guidelines and obtaining independent certification, we ensure transparency about our LC solutions' carbon footprint. Agilent is also committed to achieving net-zero greenhouse gas emissions by 2050.



Learn more https://aglt.co/my-green-lab



### Benefit from Ultimate Separation Power

The Agilent 1290 Infinity III LC is an ultrahigh-performance liquid chromatography (UHPLC) system offering rapid separation, high resolution, low dispersion, and unmatched sample capacity—for your most challenging application needs.



1290 Infinity III LC with High-Speed Pump

1290 Infinity III LC with **Flexible Pump** 



#### Identify, quantify, and uncover the unknowndiscover your LC/MS perfect match

Lowest dispersion, fast and precise gradients, and highly reproducible flow rates and retention times make the 1290 Infinity III LC system your optimum front end for triple quadrupole and (Q-)TOF detection. These LC/MS systems are perfectly suited for highly specific and ultrasensitive analysis of drug impurities and metabolites, food safety, environmental contaminants, and forensics/toxicology.



#### **Highest resolution**

The 1290 Infinity III LC System is a UHPLC instrument designed for short run times. The entire flow path is optimized for low system volumes, enabling fast gradients and lowest extra-column band broadening. Specially designed components, such as needle seats, heat exchangers, column fittings, and flow cells, allow you to fully employ the power range of 1300 bar at 2 mL/minute. Data rates up to 240 Hz deliver uncompromised chromatographic resolution—even for your fastest separations.



Perform the fastest separations with the highest resolution, taking advantage of the lowest extra-column volume and highest detector data rate.

#### Highest retention time precision for reliable peak identification

The 1290 Infinity III High-Speed Pump and the 1290 Infinity III Flexible Pump deliver unmatched precision and accuracy of composition and flow rates for reproducible results, even when the gradients are shallow.

Choose the High-Speed Pump for fastest gradient formation with ultimate precision and accuracy. Choose the Flexible Pump for highly reproducible gradients with up to four mobile phases. Superior gradient performance is delivered over the entire composition range from 1 to 99%.



This overlay of 10 chromatograms shows superior retention time precision of 0.005% RSD with the 1290 Infinity III High Speed-Pump, even for ultrafast separations.



The dual-needle design of the 1290 Infinity III Multisampler eliminates wait times by overlapping injection cycles without compromising data quality from carryover or sample discrimination.

# High sample capacity and fast injection cycles, low carryover

The 1290 Infinity III Multisampler accommodates up to 16 microtiter plates for a total capacity of 6,144 samples, or up to 432 vials. It also features an optional cooling system for sensitive samples. Equipped with dual-needle injection, the 1290 Infinity III Multisampler enables you to reduce cycle times to mere seconds. And with the multiwash option, you can reduce carryover to less than 9 ppm for the standard single- or dual-needle option.



Outer needle multiwash with up to three different solvents reduces carryover to near-zero, even with sticky compounds.

### **Empower Your Routine Analysis**

The Agilent 1260 Infinity III LC System provides robust high-performance liquid chromatography (HPLC) with a wide range of modules for both analytical HPLC and entry-level UHPLC. It ensures reliable performance and robustness, instilling confidence in your results—making it a workhorse for your everyday routine analysis.



1260 Infinity III LC with Quaternary Pump

1260 Infinity III LC with **Binary Pump** 



### Start your day with a system that's ready when you are

Automated system purge enables users to save money and time, while benefitting the environment. Only the necessary amount of solvent is used, which reduces waste and cuts costs. With fewer manual steps, the risk of operator error is significantly reduced, ensuring a smooth and reliable start every time.





#### Robust and reliable solvent delivery

The 1260 Infinity III Quaternary Pump delivers pressures of up to 600 bar, making it suitable for a wide range of routine applications. The four-channel gradient valve established in the 1290 Infinity III Flexible Pump further enhances the precision of the retention time.



#### Stay on top of your regulatory requirements

The 1260 Infinity III LC portfolio is your ideal choice for any QA/QC lab. It combines robust HPLC hardware with compliance services and a wide range of Agilent control software options, all at an attractive price.



#### Flexibility for any application

Choose a detection technique that meets your application requirements. The 1260 Infinity III LC offers you a broad range of detection options, including UV-visible, fluorescence, refractive index, evaporative light scattering, or mass-spectrometry detection.

High-sensitivity flow cells for the diode array detector allow you to detect the lowest sample concentrations. Also available for the diode array and fluorescence detectors are special bio-inert flow cells, to guarantee safe data capture from your biological samples.

#### Fast routine analysis

The Agilent 1260 Infinity III Prime LC is the most capable and convenient LC within the 1260 Infinity III LC portfolio. Leveraging technology from the Agilent 1290 Infinity III LC system, it offers the highest ease-of-use and functionality for everyday analysis, including:

- Ultimate performance for flow rates up to 5 mL/minute and pressures up to 800 bar
- Seamless method transfer using ISET
- Fast optimization and simplified variation of solvent composition using Agilent BlendAssist software
- A hybrid multisampler with Agilent Feed Injection mode to mediate solvent effects



1260 Infinity III Prime LC



ISET

BIO Also available as biocompatible



- LC/MS-ready (ultraclean available)



**Download our white paper** to learn how these capabilities can help you gain up to 80,000 USD of incremental economic value per year compared to a conventional LC system.

https://aglt.co/improve-lc-roi

# Discover a Compact Solution for Reliable Results



Take a close look at the Agilent 1220 Infinity II LC and you'll find everything you need to get you on the fast track to result confidence—a high-quality, compact unit at an affordable price—for maximum return on investment.

#### **Flexible configuration**

Choose from four integrated all-in-one configurations that include all the components you need to meet the requirements of your LC workflows. To increase instrument efficiency or meet future demands, a wide variety of upgrade paths are available.

| Isocratic<br>Configuration         | Gradient Configurations            |                                    |                         |  |
|------------------------------------|------------------------------------|------------------------------------|-------------------------|--|
| Isocratic Pump                     | Gradient Pump                      | Gradient Pump                      | Gradient Pump           |  |
| Manual Injector                    | Manual Injector                    | Autosampler                        | Autosampler             |  |
|                                    |                                    | Column Oven                        | Column Oven             |  |
| Variable<br>Wavelength<br>Detector | Variable<br>Wavelength<br>Detector | Variable<br>Wavelength<br>Detector | Diode Array<br>Detector |  |



#### Precise and reliable solvent delivery

The 1220 Infinity II LC Pump ensures stable, virtually pulse-free solvent flow up to 10 mL/minute. A pressure range up to 600 bar even enables the use of columns with smaller particles for better resolution and faster run times.

Six overlaid consecutive analyses of a standard sample using an Agilent InfinityLab Poroshell 120 EC-C18, 3 x 50 mm, 2.7  $\mu m$  column with 1  $\mu L$  injection volume, demonstrating a fast gradient run at 563 bar with retention time precision less than 0.15% RSD.

#### Walk-up solution: Easy access for multiple users

Regardless of experience or skills, our walk-up solution gives everyone easy access to powerful LC separation and detection capabilities—including LC/MS. The external sample tray provides easy sample placement. The intuitive walk-up software works perfectly in tune with Agilent OpenLab CDS and Agilent MassHunter software to guide you through sample submission and method selection.

#### Mobile solution: InfinityLab quality where and when you need it

For mobile labs that need to measure samples at different locations or even remote sites, the Agilent 1220 Infinity II Mobile LC Solution provides an ideal configuration for onsite liquid chromatography analysis. A special mounting plate absorbs shocks and vibration during transport or operation. Columns and solvent containers are held firmly in place, preventing instrument damage and maintaining operator safety.









The Agilent 1220 Infinity Mobile LC Solution offers high reliability and fast analysis, even under challenging onsite conditions, making it the ideal LC system for fast response in the field.

# Outstanding Performance Across All Application Fields

Agilent offers the versatility you need to address a wide variety of applications.

### Pharma

#### Reducing cost per injection for your USP compendial methods

Since the revision of Chapter 621 of the United States Pharmacopeia (USP) on chromatography, adjustments to chromatographic conditions in gradient elution liquid chromatography are allowed. This includes the transfer of gradient methods to UHPLC conditions. This application note demonstrates method transfer to UHPLC conditions for the analysis of organic impurities of acetaminophen.



Read application note https://aglt.co/5994-5897EN



#### **Download eBook**

#### https://aglt.co/5994-4287EN

The eBook is a guide to targeted quantification and screening environmental matrices.



Classic flow-through injection (A) versus Agilent Feed Injection (B).

### Food Testing and Agriculture

#### Sensitive quantification for your PFAS analyses

Compared to classical flow-through injection, Agilent Feed Injection allows significantly higher injection volumes without negative effects on peak shape, even when the sample is dissolved in 100% organic solvents. This application note demonstrates its use in the analysis of per- and polyfluoroalkyl substances (PFAS). Increased peak areas enable lower detection limits, which increases the reliability of quantification.

#### **Application examples**

### Biopharma

# Comprehensive and integrated workflow for your oligonucleotide sequences

LC/MS has become a powerful technique for synthetic oligonucleotide analysis. A comprehensive characterization of an oligonucleotide sample can be a challenging and time-consuming process, while increasing the identification accuracy and confidence significantly. With the Agilent integrated workflow, 100% sequence coverage for all analyzed oligonucleotides is possible with a single injection.



Read application note https://aglt.co/5994-5071EN



LC/MS/MS analysis on oligonucleotide with specific modifications (ASO\_18-mer). (A) Total ion chromatography (TIC) of ASO\_18-mer. (B) Raw MS spectrum of ASO\_18-mer, with Fragment Confirmation Ladder displayed.

### Cannabis

# Determination of pesticides and mycotoxins for your cannabis flower analyses

Following the legalization of recreational cannabis use in various U.S. states in recent years, respective lawmakers have introduced their own unique state legislation for acceptable levels of contaminants. Agilent offers a robust LC/MS/MS method and sample preparation workflow that reliably meets down to 50% of the respective states' legalized recreational legislative action limits for pesticide and mycotoxin content for cannabis dried flower samples.



Read application note

https://aglt.co/5994-1734EN

**Agilent Technologies** Cannabis Quant Analysis Sample Report D:\Demo\_Data\Cannabis Extract Data June 2018\6470 Data\Data 08082018 adjusted extraction\QuantResults\California Reporting with Limits 01.batch.bin 11/26/2018 12:07:01 PM **Batch Data Path** Analysis Time Report Generation Time Calibration Last Update 11/26/2018 4:49:41 PM 11/26/2018 12:07:00 PM Sample Name Data File Matrix Spike Pre-SPE 60ppb Matrix Spike Pre-SPE 60ppb-r001.d Instrument Name Acq. Date-Time Instrument Name 8/8/2018 10:22:51 PM Dil. 10 California Pesticides & Alflatoxins List dynamic MRM 21 inj prog Multisampler.m Type Acq. Method File Sample Chromatogram +/- TIC MRM (\*\* -> \*\*) Matrix Spike Pre-SPE 60ppb-r001.d (Matrix Spike Pre-SPE 60ppb) 1.4 1.2 1 0.8

#### 

# Find the latest information on our website:

#### https://aglt.co/cannabis-testing



|                     |               |             |       |              | Acquisit | ion Time (min) |
|---------------------|---------------|-------------|-------|--------------|----------|----------------|
| Name                | Test Outcome  | Measured Re | esult | Action Limit | RT       | Resp.          |
| Acephate            |               | 62.27       | ppb   | 100.00       | 1.32     | 53438          |
| Acequinocyl         |               | 0.00        | ppb   | 100.00       | 6.82     | 10562          |
| Acetamiprid         |               | 70.33       | ppb   | 100.00       | 3.32     | 123240         |
| Aldicarb            | Action Needed | 69.10       | ppb   | 0.00         | 3.39     | 15193          |
| Avermectin B1a      |               | 65.99       | ppb   | 100.00       | 6.72     | 1742           |
| Avermectin B1b      |               | 80.18       | ppb   | 100.00       | 6.49     | 30             |
| Azoxystrobin        |               | 71.38       | ppb   | 100.00       | 4.35     | 161623         |
| Bifenazate          |               | 79.54       | ppb   | 100.00       | 4.38     | 145822         |
| Bifenthrin          |               | 78.38       | ppb   | 3000.00      | 7.37     | 45481          |
| Boscalid            |               | 76.48       | ppb   | 100.00       | 4.28     | 12587          |
| Carbaryl            |               | 72.58       | ppb   | 500.00       | 3.67     | 37280          |
| Carbofuran          | Action Needed | 70.89       | ppb   | 0.00         | 3.62     | 180713         |
| Chlorantraniliprole |               | 74.78       | ppb   | 10000.00     | 4.10     | 17859          |
|                     |               |             |       |              |          |                |

Example of cannabis reporting template.



# Software Solutions to Make Your Analysis Faster, Easier, and More Productive

No matter whether you are using a single InfinityLab LC system or solution, or you couple it with mass spectrometry detection, Agilent offers you the right software solution to maintain control.

#### Bring more flow to your LC workflow

Agilent OpenLab CDS streamlines LC workflows by integrating instrument control, data integrity, and efficiency into a single chromatography software solution. It offers a powerful toolset for controlling Agilent InfinityLab LC instruments, complete with built-in technical controls to ensure data integrity and facilitate regulatory compliance. Plus, OpenLab CDS enables efficient result generation for single samples or complex sequences, including blanks, calibration standards, and unknowns.





#### Make your LC/MS analyses easier

Designed to solve your everyday struggles, Agilent MassHunter software provides customizable features and capabilities that support diverse applications in mass spectrometry. Operators at all levels can use MassHunter software to drive confident results for their laboratories. This intuitive software suite for Agilent mass spectrometers features easy-to-use methods and templates, intelligent instrument and automation control, and comprehensive curated databases and libraries.

#### Take control of your chromatography

Agilent Instrument Control Framework (ICF) facilitates comprehensive and straightforward control of your Agilent LC and CE instruments and modules regardless of the chromatography data system you deploy in your laboratory. With ICF, your Agilent LC instrumentation runs smoother when controlled through nonAgilent chromatography data systems (CDS) such as Waters Empower or Thermo Scientific Chromeleon.



## Perform Rugged, Fast LC with Confidence

To maximize separation potential, Agilent offers precisely matched columns and supplies to enhance our InfinityLab LC solutions.

#### Agilent InfinityLab Poroshell 120 columns



The Agilent InfinityLab Poroshell 120 family has grown to include 20 chemistries—including Aq-C18 for 100% aqueous

separation of polar compounds. Permanently fitted column ID tags track column usage, adding confidence and security to your analysis. Whether you use traditional HPLC systems or newer UHPLC systems, you will experience exceptional separation efficiency, and significantly boost performance and throughput from every LC in your lab.

#### Agilent InfinityLab LC supplies

The small parts of your workflow can make a big difference in the quality of your results. Agilent InfinityLab supplies are designed to enhance the efficiency and ease of your daily tasks.





#### Agilent InfinityLab solvents for UHPLC and LC/MS

Agilent InfinityLab solvents for UHPLC and LC/MS are expertly formulated for analytical

UHPLC applications and shield against common contaminants—ensuring optimal performance and minimizing the risk of expensive downtime and repairs.



More information

https://explore.agilent.com/essentialsupplies

## Focus On What You Do Best

With Agilent CrossLab, we partner with you to implement solutions that optimize your lab's performance and productivity. That is why you can rely on us to provide the tools you need and protect your investment, backed by a global network of experienced Agilent-certified service professionals dedicated to the productivity of your lab.







#### Service plans

Agilent CrossLab service plans provide comprehensive, customizable coverage to suit your specific needs and budget.

We offer a range of service plans so that you can choose the level of coverage desired.

| 5     | Cross <b>Lab</b>                       |
|-------|--|
|       | Ranked #1 in<br>Compliance<br>Services |
| Again | Per independent surveys                |

#### **Compliance services**

Agilent offers a comprehensive set of laboratory compliance services, including instrument qualification

based on USP <1058>, analytical instrument qualification, and custom validation services.



#### Virtual tech support

CrossLab service plans enable customers to get live technical

help. Our Virtual Assist application uses a secure connection and supports digital annotations, enabling clear instructions for remote problem solving to reduce your downtime.

| 0   | JET                     |
|-----|-------------------------|
| 4.1 |                         |
| U   | $\overline{\mathbf{x}}$ |

#### Agilent learning services

Having productivity challenges? Agilent can help you optimize your method,

train new staff, and bolster troubleshooting abilities with method consulting and education services.

#### The Agilent Service Guarantee

If we cannot fix an instrument covered by a CrossLab service plan, regardless of manufacturer, our escalation process will resolve the issue up to and including replacing your instrument for free.\*



Unlock your lab's full potential with CrossLab agilent.com/chem/crosslab

\* Conditions apply.



The Agilent InfinityLab LC Series offers you an unmatched choice of instrumentation for liquid chromatography. Use this product selection guide to identify which configuration fits best to your laboratory's requirements.

#### LC module comparison

Not sure which modules suit your needs? This comparison table provides a high-level overview of four LC systems, including their main differentiating features and available modules so that you can choose only the modules that fit best.

|  | 1290 Infinity III LC | 1260 Infinity III<br>Prime LC | 1260 Infinity III LC | 1220 Infinity II LC           |
|--|----------------------|-------------------------------|----------------------|-------------------------------|
| InfinityLab Assist   | ~                    | ~                             | ~                    | _                             |
| InfinityLab Level Sensing                                  | ~                    | ~                             | ~                    | _                             |
| Maximum Operating Pressure                                 | 1300 bar             | 800 bar                       | 400 or 600 bar       | 600 bar                       |
| Flow (mL/minute)   | up to 5              | up to 5                       | up to 5 or 10        | up to 10                      |
| Multisampler with<br>Dual-Needle Injection                 | ~                    | ~                             | ~                    | _                             |
| Multisampler with<br>InfinityLab Sample ID Reader          | ~                    | ~                             | ~                    | _                             |
| Binary Pump  | High-Speed Pump*     | _                             | ~                    | Dual-Channel<br>Gradient Pump |
| Quaternary Pump  | Flexible Pump**      | Flexible Pump**               | ~                    | _                             |
| BlendAssist Software<br>(available for all Flexible Pumps) | ~                    | ~                             | _                    | _                             |
| Isocratic Pump   | _                    | _                             | ~                    | ~                             |
| ISET (Method Transfer)                                     | ~                    | ~                             | _                    | _                             |
| Multipurpose Valve (UHPLC)                                 | ~                    | ~                             | _                    | _                             |
| UV (VWD, DAD, MWD), ELSD, RID and FLD                      | ~                    | ~                             | ~                    | ~                             |
| Mass Spectrometry Detection                                | ~                    | ~                             | ~                    | ~                             |
| Lab Advisor Software<br>for LC Maintenance                 | ~                    | ~                             | ~                    | ~                             |

\* High-Speed Pump: a high-end binary pump, ideal for fast gradients, often used with MS

\*\* Flexible Pump: a high-end quaternary pump, ideal for routine labs

### Selection guide

### Configure your analytical LC system

| Instrument<br>Control  | InfinityLab Assist                    | InfinityLab Hub and Interface for status overview and dashboards for 1260 and 1290 Infinity II and III LCs  | G7178A                         |
|------------------------|---------------------------------------|---|--------------------------------|
| Solvent<br>Preparation | 1260 Infinity II<br>Degasser          | Four channels; up to 10 mL/min flow; 12 mL internal volume per channel  | G7122A                         |
| Solvent<br>Delivery    | 1290 Infinity III High-<br>Speed Pump | 1300 bar up to 2 mL/min, ramping down to 800 bar at 5 mL/min;<br>binary solvent mixing; integrated degassing unit; solvent<br>selection valve   | G7120A                         |
|                        | 1290 Infinity III<br>Flexible Pump    | 1300 bar up to 2 mL/min, ramping down to 800 bar at 5 mL/min;<br>quaternary solvent mixing; integrated degassing unit   | G7104A                         |
|                        | 1260 Infinity III<br>Flexible Pump    | 800 bar up to 5 mL/min; quaternary solvent mixing; integrated degassing unit  | G7104C                         |
|                        | 1260 Infinity III Binary<br>Pump      | 600 bar up to 5 mL/min; integrated degassing unit; optional solvent selection valve   | G7112B                         |
|                        | 1260 Infinity III<br>Quaternary Pump  | 600 bar up to 5 mL/min; 200 bar up to 10 mL/min; integrated degassing unit  | G7111B                         |
|                        | 1260 Infinity III<br>Isocratic Pump   | 600 bar up to 5 mL/min; 200 bar up to 10 mL/min; optional integrated degassing unit; solvent selection valve  | G7110B                         |
|                        | 1260 Infinity III SFC<br>Binary Pump  | Delivers supercritical CO <sub>2</sub> and modifiers at up to 600 bar and 5 mL/min; binary solvent mixing; integrated degassing unit and two-solvent selection valve for channel B            | G4782A                         |
| Valve<br>Solutions     | 1290 Infinity Flexible<br>Cube        | For enhanced injection modes and advanced valve-switching applications such as online SPE   | G4227A                         |
|                        | 1290 Infinity III Valve<br>Drive      | Drive unit for any InfinityLab Quick Change valve head  | G1170A                         |
|                        | InfinityLab Quick<br>Change Valves    | Available in stainless steel for high-pressure and ultrahigh-pressure<br>applications up to 1300 bar as well as with bio-inert materials in<br>flow paths for biochromatographic applications | List of<br>product<br>numbers* |

| LC Support<br>Modules | 1260 Infinity III SFC<br>Control Module              | Compresses $CO_2$ and houses backpressure regulator; uses liquefied (analytical grade) or gaseous $CO_2$ (beverage grade); low dispersion nozzle for full flow transfer to MS or ELSD | G4301A |
|-----------------------|--|---|--------|
| UV<br>Detection       | 1290 Infinity III Diode<br>Array Detector            | ± 0.6 μAU/cm noise (60 mm Max-Light cartridge cell) or<br>± 3 μAU/cm noise (10 mm Max-Light cell); 240 Hz; spectra;<br>8 signals; 1 to 8 nm slit; 190 to 640 nm                       | G7117B |
|                       | 1290 Infinity III Diode<br>Array Detector FS         | ± 0.6 μAU/cm noise (60 mm Max-Light cartridge cell) or<br>± 3 μAU/cm noise (10 mm Max-Light cell); 120 Hz; spectra;<br>8 signals; fixed slit; 190 to 640 nm                           | G7117A |
|                       | 1290 Infinity III<br>Variable Wavelength<br>Detector | ± 1.5 μAU noise; time-programmable, 240 Hz (single wavelength detection); 2.5 Hz (dual wavelength detection); 190 to 600 nm   | G7114B |
|                       | 1260 Infinity III Diode<br>Array Detector HS         | ± 0.6 μAU/cm noise (60 mm Max-Light cell) or ± 3 μAU/cm noise<br>(10 mm Max-Light cell); 120 Hz; spectra; 8 signals; fixed slit; 190 to<br>640 nm                                     | G7117C |
|                       | 1260 Infinity III Diode<br>Array Detector WR         | ± 7 μAU/cm noise; 120 Hz; spectra; 8 signals; 190 to 950 nm   | G7115A |
|                       | 1260 Infinity III<br>Multiple Wavelength<br>Detector | ± 7 μAU/cm noise; 120 Hz; 8 signals; 190 to 950 nm  | G7165A |
|                       | 1260 Infinity III<br>Variable Wavelength<br>Detector | ± 2.5 μAU/cm noise; 120 Hz (single wavelength detection);<br>2.5 Hz (dual wavelength detection); 190 to 600 nm  | G7114A |

### Selection guide

| Sample<br>Injection | 1290 Infinity III<br>Multisampler              | 0 to 20 $\mu$ L or 0 to 100 $\mu$ L single-stroke injection at 1300 bar; up to 1500 $\mu$ L with optional kits; sample capacity up to 432 vials and for up to 6144 samples; multiwash option for less than 9 ppm carryover; thermostatting available; dual-needle option for highest throughput and flexibility   | G7167B |
|---------------------|--|---|--------|
|                     | 1290 Infinity III<br>Vialsampler               | 0.1 to 20 μL (40 optionally); up to 120 μL with multidraw mode<br>at 1300 bar; sample capacity up to 132 x 2 mL vials; optional<br>integrated column compartment for column heating up to 80 °C;<br>thermostatting available  | G7129B |
|                     | 1260 Infinity III<br>Multisampler              | 0 to 100 μL single-stroke injection at 800 bar; up to 1800 μL<br>with optional kits; sample capacity up to 432 vials and for up to<br>6144 samples; multiwash option for less than 9 ppm carryover;<br>thermostatting available; dual-needle option for highest throughput<br>and flexibility   | G7167A |
|                     | 1260 Infinity III Hybrid<br>Multisampler       | Both classical flow-through injection and Agilent Feed Injection modes injection, up to 800 bar. Optional thermostatting available  | G7167C |
|                     | 1260 Infinity III<br>Vialsampler               | 0.1 to 100 μL injection from vials at up to 800 bar; up to 1500 μL with optional kits; optional integrated column compartment for column heating up to 80 °C; thermostatting available  | G7129C |
|                     | 1260 Infinity III<br>Vialsampler               | 0.1 to 100 $\mu L$ injection from vials at up to 600 bar; up to 1800 $\mu L$ with optional kits; optional integrated column compartment for column heating up to 80 °C; thermostatting available  | G7129A |
|                     | 1260 Infinity III<br>Manual Injector           | 5 µL to 20 mL injection loops   | G1328C |
| Column              | 1290 Infinity III<br>Multicolumn<br>Thermostat | 20 degrees below ambient to 110 °C; up to four 30 cm columns and<br>up to eight 10 cm columns; up to eight individual InfinityLab Quick<br>Connect heat exchangers for standard-flow, high-flow, and ultralow<br>dispersion; optional valve drive for InfinityLab Quick Change valve<br>heads (up to 1300 bar and up to 8-column selection without<br>replumbing) | G7116B |
|                     | 1260 Infinity III<br>Multicolumn<br>Thermostat | 10 degrees below ambient to 85 °C; up to four 30 cm columns;<br>up to four individual InfinityLab Quick Connect heat exchangers;<br>optional valve drive for InfinityLab Quick Change valve heads (up to<br>800 bar and up to 4-column selection without replumbing)  | G7116A |

| Special<br>Detection     | 1290 Infinity III<br>Evaporative Light<br>Scattering Detector | For subambient operation; flow range 0.2 to 5 mL/min; evaporator temperature 10 to 80 °C; nebulizer temperature 25 to 90 °C   | G7102A |
|--------------------------|---|---|--------|
|                          | 1260 Infinity III<br>Evaporative Light<br>Scattering Detector | For subambient operation; flow range 0.2 to 5 mL/min; evaporator temperature 25 to 120 °C; nebulizer temperature 25 to 90 °C  | G4260B |
|                          | 1260 Infinity III<br>Fluorescence<br>Detector Spectra         | Multisignal fluorescence detector; online spectra; 4 signals;<br>148 Hz; 4000 h lamp; Raman (H <sub>2</sub> O) > 500 (noise reference<br>measured at signal); Raman (H <sub>2</sub> O) > 3000 (noise reference<br>measured at dark value) | G7121B |
|                          | 1260 Infinity III<br>Fluorescence Detector                    | One signal wavelength, 74 Hz; 4000 h lamp; Raman (H <sub>2</sub> O) > 500<br>(noise reference measured at signal); Raman (H <sub>2</sub> O) > 3000 (noise<br>reference measured at dark value)  | G7121A |
|                          | 1290 Infinity III<br>Refractive Index<br>Detector             | 148 Hz; 1.00 to 1.75 RI range; ±600 x10 <sup>-6</sup> RIU measurement range;<br>Noise < ±2.5 x10 <sup>-9</sup> RIU; < 1 h warm-up; 5 degrees above ambient up<br>to 55 °C   | G7162B |
|                          | 1260 Infinity III<br>Refractive Index<br>Detector             | 74 Hz; 1.00 to 1.75 RI range; ±600 x10 <sup>-6</sup> RIU measurement range;<br>Noise < ±2.5 x10 <sup>-9</sup> RIU; < 1 h warm-up; 5 degrees above ambient up<br>to 55 °C  | G7162A |
| Integrated<br>LC Systems | 1220 Infinity II<br>Gradient LC                               | Dual-channel gradient pump, autosampler, column oven, and diode array detector  | G4294B |
| -                        | 1220 Infinity II<br>Gradient LC                               | Dual-channel gradient pump, autosampler, column oven, and variable wavelength detector  | G4290B |
|                          | 1220 Infinity II<br>Gradient LC                               | Dual-channel gradient pump, manual injector, and variable wavelength detector   | G4288B |
|                          | 1220 Infinity II<br>Isocratic LC                              | Single solvent pump, manual injector, and variable wavelength detector  | G4286B |

#### **Application-specific solutions**



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