

Agilent 325 Dual Wavelength UV-Vis Detector

Features, Technical Details, Specifications, and Ordering Details



The Agilent 325 Dual Wavelength UV-Vis Detector delivers superb sensitivity for detection in the UV and Visible light ranges. Dual path-length flow cell technology offers a dynamic absorbance range 40 times greater than conventional detectors, especially for preparative LC applications.

Features

- **Secure compound identification** – Simultaneously handling two user-defined UV or visible wavelengths increases analyte information and enhances productivity.
- **Superb dynamic range** – Dual path-length flow cell delivers a dynamic absorbance range 40 times greater than conventional detectors.
- **Scale-up easily** from analytical to preparative flow rates. Interchangeable, cartridge-style flow cells quickly switch flow rates from one microliter to hundreds of milliliters per minute.
- Agilent OpenLAB CDS ChemStation Edition Software or Agilent LC Responder Software provide full system control, data analysis and multiple reporting options plus tools for 21 CFR Part 11 compliance.
- **Stable, precise wavelength settings** – Deuterium source is used for the ultraviolet range and a quartz halogen lamp for the visible range.
- **Tool-free maintenance** – Routine maintenance is easy with front panel access. Simple thumbscrews secure the lamps and flow cells, no tools are needed.
- **Regulatory compliance** – Agilent offers complete IQ, OQ, and PQ documentation packages and contract services to help meet regulatory requirements.

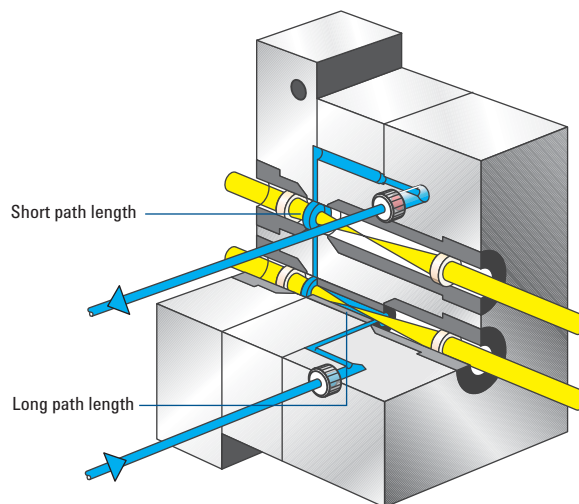


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Technical Details

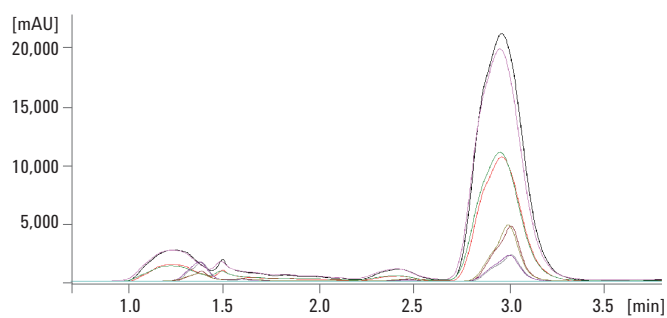
Dual pathlength flow cell

The dual path-length flow cell in the 325 Dual Wavelength UV-Vis Detector handles both low to high flow rates and low to high absorbance. The long path length measures low absorbance readings (<0.8 AUFS) and the shorter path-length measures high absorbance readings (>1.2 AUFS) combining to deliver a dynamic absorbance range from 0.0005 AU up to 80 AU up to 40 times more than conventional detectors.



Achieve up to 80 AU when moving from analytical to preparative operation, without changing the dual path-length flow cell. Above shows dynamic range from 2 to 21 AU of 5-hydroxytryptophan sample.

Column: Agilent Pursuit XRs C18
Mobile phase: 85% water, 15% methanol
Detection: UV at 230 and 280 nm
Flow: 21 mL/min



Specifications

Wavelength range	190 to 900 nm
Light sources	Deuterium for UV and quartz halogen for visible range
Spectral bandwidth	6 nm
Wavelength precision	±0.1 nm
Wavelength accuracy	±1 nm at 260 nm
Noise, single wavelength	±5 × 10 ⁻⁶ AU peak-to-peak at 254 nm, 2 seconds response time, 1 mL/min MeOH, 9-mm flow cell
Noise, dual wavelength	±10 × 10 ⁻⁶ AU peak-to-peak at 254/280 nm, 2 seconds response time, 1 mL/min MeOH, 9-mm flow cell
Noise, dry cell	Typically, ±3 × 10 ⁻⁶ AU peak-to-peak at 254 nm, 2 seconds response time, 9 mm flow cell
Drift:	Less than 1 mAU/hr
Linearity, with acetone in water	Analytical 1% to 2 AU; preparative 1% to 20 AU at 265 nm
Absorbance range	Up to 80 AU with preparative flow cell
Response time, selectable	0.05, 0.5, 1, and 2 seconds
Data rate	20 Hz single channel
Analog outputs	Two with selectable absorbance range of 0.001 to 100 AU full scale at 1 V
External	Ethernet
Contact closure outputs	Four time-programmable external event relays, one peak sense relay, three synchronization signals (ready out, start out, and fault out)
Contact closure inputs	Lamp off, autozero, three synchronization signals (ready in, start in, and fault in)
Software	Agilent OpenLab ChemStation
Dual channel ratio calculation	Peak detection through OpenLab ChemStation
Dual pathlength flow cells	Preparative flow cell: 9 mm × 1 mm; 4 × 0.25 Super preparative flow cell: 4 mm × 0.15 mm
Maximum flow rate preparative flow cell	Preparative flow cell: 500 mL/min Super preparative flow cell: 10 L/min
Pressure	1,000 psi maximum

Ordering Details

Agilent 325 Dual Wavelength UV-Vis Detector

Description	Part number
Agilent 325 UV Dual Wavelength UV-Vis Detector (190–900 nm)	G9309A
PWB Synchronization Interface 325/335	G9309A #183

Note: You must order the appropriate flow cell separately.

Flow Cells

Description	Part number
Flow cell 9 × 1 mm, dual path-length (Prep)	G9309A #180
Flow cell 4 × 0.25 mm dual path-length (Semi-prep)	G9309A #181
Flow cell 4 × 0.15 mm dual path-length (Super-prep)	G9309A #182

www.agilent.com/chem/purification

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