



Agilent 1290 Infinity II Refractive Index Detector

Data Sheet

Product Description

The 1290 Infinity II Refractive Index Detector is equipped with an ultralow dispersion microflow cell, which significantly reduces run times for higher sample throughput and improved resolution. Lower solvent consumption means much lower cost of analysis. A high-performance detector of choice for accurate, reproducible, routine analysis of polymers and other compounds that aren't detectable by UV.



Features

- Shorter run times – for considerably higher sample throughput.
- Ultralow dispersion – for improved sample definition and resolution.
- Reduced solvent consumption – for significant savings in analysis cost.
- Ideal tool for polymer analysis – consistent molecular weights, micro or analytical scale.
- Excellent sensitivity – achieve low limits of detection.
- 148 Hz data rate – even the narrowest distribution peaks can be detected and accurately quantified.
- Minimized band broadening – high-definition sample profiling.
- Fast startup – advanced low thermal mass design means that initial setup is typically less than two hours.
- Further time and solvent saving – a recycle valve enables sample to be recirculated when the sample is not passing through the flow cell.
- Automatic purging of reference flow cell – using programmable purge and wait times.
- Easy maintenance – convenient front access for maintaining instrument uptime.
- Early maintenance feedback (EMF) – indicates that preventative maintenance is due.
- Extensive diagnostics – includes error detection and display with Instant Pilot controller and Lab Advisor software.
- RoHS compliant – aligned with European Union directives regarding specific hazardous materials.



Specifications

Table 1 Physical Specifications

Type	Specification	Comments
Weight	15 kg (33 lbs)	
Dimensions (height × width × depth)	180 x 396 x 436 mm (7.1 x 15.6 x 17.2 inches)	
Line voltage	100 – 240 V~, ± 10 %	Wide-ranging capability
Line frequency	50 or 60 Hz, ± 5 %	
Power consumption	70 W / 80 VA	
Ambient operating temperature	4–55 °C (39–131 °F)	
Ambient non-operating temperature	-40 – 70 °C (-40 – 158 °F)	
Humidity	< 95 % r.h. at 40 °C (104 °F)	Non-condensing
Operating altitude	Up to 3000 m (9842 ft)	
Non-operating altitude	Up to 4600 m (15092 ft)	For storing the module
Safety standards: IEC, EN, CSA, UL	Installation category II, Pollution degree 2	For indoor use only.
ISM Classification	ISM Group 1 Class B	According to CISPR 11

Table 2 Agilent 1290 Infinity II Refractive Index Detector (G7162B) Performance Specifications

Type	Specification	Comments
Detection type	Refractive Index	
Refractive index range	1.00 – 1.75 RIU, calibrated	
Measurement range	±600·10 ⁻⁶ RIU	
Optical zeroing		via set screw
Optics temperature control	5 °C above ambient to 55 °C	
Sample cell	Volume: 2.5 µL Maximum pressure: 5 bar (0.5 MPa) Maximum flow rate: 1 mL/min (100 % water)	
Valves	Automatic purge and automatic solvent recycle	

Table 2 Agilent 1290 Infinity II Refractive Index Detector (G7162B)
Performance Specifications

Type	Specification	Comments
Volumes	Inlet port to sample cell 2.5 μ L, inlet port to outlet port 265 μ L	
Liquid contact materials	316 stainless steel, PTFE and quartz glass	
pH range	2.3 – 9.5	
Performance specifications	Short term noise: $<\pm 1.75 \cdot 10^{-9}$ RIU Drift: $<200 \cdot 10^{-9}$ RIU/hr	
Time programmable parameters	polarity, peak width	
Maximum data rate	148 Hz	
Detector zero	automatic zero before analysis	
Control and data evaluation	Parameter entry, signal display, on-line help and diagnostics with the Agilent 1260 Infinity Control Module.	
Analog outputs	Recorder/integrator: 100 mV or 1 V, output range selectable, one output	
Communications	LAN, controller-area network (CAN), ERI: ready, start, stop and shut-down signals	
Safety and maintenance	Extensive diagnostics, error detection and display (through control module and ChemStation), leak detection, safe leak handling, leak output signal for shutdown of pumping system. Low voltages in major maintenance areas.	
GLP features	Early maintenance feedback (EMF) for continuous tracking of instrument usage with user-selectable limits and feedback messages. Electronic records of maintenance and errors. Automated operational qualification/performance verification (OQ/PV).	
Housing	All materials recyclable.	

Ordering Details

Table 3 1290 Infinity II Refractive Index Detector Ordering Details

Description	Product Number
1290 Infinity II Refractive Index Detector	G7162B

www.agilent.com/chem/1200

This information is subject to change without notice.

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