

Agilent InfinityLab Pro iQ Plus Mass Detector

Operational, performance, and physical specifications
for the G6170A Pro iQ Plus mass detector



Pro iQ Plus (G6170A)

Product specifications

Parameter	Value
Ambient Operating Temperature	15 to 35 °C (59 to 95 °F)
Humidity	< 95% relative humidity at 40 °C (104 °F)
Operating Altitude	Up to 3,000 m (9,842 ft)
Line Voltage	100 to 120 V and 200 to 240 V~, -5%, +10%
Line Frequency	50 or 60 Hz, ± 5%
N ₂ Gas Purity	> 95%

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Single Point of Control	Data system capable of full system control, including Agilent Infinity II/Agilent Infinity III Series HPLC/UHPLC systems and Agilent single quadrupole LC/MS systems; operated by OpenLab CDS (CDS 2.7 and later)	
Time Programming	<ul style="list-style-type: none"> – Selected ion monitoring (SIM) – Fragmentor voltage with SIM mode – MS diverter valve 	
Ionization Sources Supported	Electrospray ionization (ESI), atmospheric pressure chemical ionization (APCI), multimode ionization (MMI), and Agilent Jet Stream (AJS) sources	
Autotune	Automated optimization (SWARM) of the ion optics and mass calibration in positive and negative ionization modes using a proprietary tune solution	
Scheduled Autotune	Autotune or checktune can be scheduled to automatically occur daily, weekly, or monthly	
Detector	10 kV, high-energy conversion dynode and high-gain electron multiplier horn	
Vacuum System	One turbomolecular pump with one mechanical pump	
Vacshield	Vent prevention for easy maintenance and robust operation of the ion injector capillary	
Parameter	Measure	Specification
Sensitivity: IDL AJS Positive	50 fg of reserpine injected on column, quantified using SIM from m/z 609.3	IDL < 20 fg, with 99% confidence
Sensitivity: IDL ESI Positive	200 fg of reserpine injected on column, quantified using SIM from m/z 609.3	IDL < 70 fg with 99% confidence
Sensitivity: S/N AJS Positive	1 pg of reserpine injected on column, quantified using SIM from m/z 609.3	S/N > 550:1
Sensitivity: S/N ESI Positive	1 pg of reserpine injected on column, quantified using SIM from m/z 609.3	S/N > 200:1
Mass Range		m/z 2 to 3,000
Mass Resolution (Autotune)	Full width at half maximum (FWHM)	0.4 Da, Narrow (m/z < 1,500) 0.7 Da, Unit 1.2 Da, Wide 2.5 Da, Widest
Mass Accuracy		± 0.1 Da from m/z 2 to 999 ± 0.2 Da from m/z 1,000 to 1,999 ± 0.3 Da from $m/z \geq 2,000$
Mass Stability	Can hold < 0.1 Da in 24 hrs at m/z 622 at ambient room temperature	≤ 0.1 Da in 24 hrs
Dynamic Range		> 6×10^6 counts, resulting in up to six orders of linear dynamic range from the LOD
Polarity Switching (Electronics)		≤ 15 ms
Acquisition And Scan Modes		Auto Acquire: Intelligently sets MS parameters based on the LC method and the target mass of the compound of interest; SIM and mixed mode (simultaneous acquisition of various scan modes at one time)
Maximum Scan Rate		15,000 Da/sec
Power Supply		100 to 120 VAC, 50/60 Hz (ESI) 200 to 240 VAC, 50/60 Hz (AJS, APCI, MMI)
Dimensions		W \times D \times H: 39.6 cm \times 54.8 cm \times 35.0 cm
Mass		47 kg

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