



# Agilent 5977E GC/MSD

## Data Sheet



### GC/MSD

The Agilent 5977E GC/MSD is a bundled system that provides outstanding value for routine analysis. The system consists of an Agilent 7820A GC, an Agilent 5977E Series GC/MSD, a PC, printer, and software (MassHunter acquisition with both Classic ChemStation and MassHunter Data Analysis). An optional Agilent 7693A automatic-liquid sampler and 150 vial tray, or 7650A 50-vial automatic-liquid sampler, can be added for increased productivity.

### Mass Selective Detector

Ion source type	EI, Stainless Steel (standard), 150–350 °C.
Mass filter	Monolithic quartz, hyperbolic quadrupole, 106–200 °C
Mass range	1.6–1,050 u
Detector	Triple-Axis-Detector HED-EM with long life EM
Scan rate	Up to 12,500 with Stainless Steel source Up to 20,000 with optional Extractor source
Pumping system	65 L/s diffusion pump, 255 L/s turbomolecular pump with 2.5 m <sup>3</sup> /h mechanical pump

### Agilent GC/MSD MassHunter with MSD ChemStation Data Analysis

SIM/Scan	Synchronous SIM/Scan and AutoSIM setup
Application Autotunes	One click autotune for BFB, DFTPP
Spectral libraries (optional)	NIST, Wiley, Pfleger-Maurer Drug and Stan Pesticides



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## Agilent 7820A GC

### Gas chromatograph

Inlet	Split/splitless (standard)
S/SL Inlet	400 °C maximum operating temperature Pressure range: 0 to 60 psi Maximum split ratio: 250:1

### Column oven

Operating temperature	8 °C above ambient to 425 °C
Temperature setpoint resolution	1 °C
Temperature programming ramps	Five

### Heated zones

Independent heated zones	Five total (two inlets, two detectors, and one auxiliary)
Electronic Pneumatics Control (EPC)	Available on all inlets and GC detectors
Detectors	Supports one detector besides MSD.
Available detectors	Flame ionization detector (FID) Thermal conductivity detector (TCD) Electron capture detector (ECD)* Nitrogen phosphorous detector (NPD)

### Physical requirements

GC dimensions	49 cm (height) × 56 cm (width) × 51 cm (depth) Average weight 50 kg
MSD dimensions	40.8 cm (height) × 29.8 cm (width) × 54 cm (depth) Average weight 39 kg  Additional space should be added for the data system and printer

\*ECD not supported in Japan

## Installation Checkout Specifications

EI SIM IDL (Helium Carrier gas with Auto Liquid Sampler)	<b>40 fg or less</b> IDL for Stainless Steel ion source  IDL statistically derived at 99% confidence level from the area precision of eight sequential splitless injections of 100 fg OFN, monitoring <i>m/z</i> 272.
EI scan S/N (Helium carrier gas with manual injection)	<b>100:1 or higher</b> S/N for Stainless Steel ion source  S/N measured on 1- $\mu$ L injection of 1 pg/ $\mu$ L OFN standard scanning from 50 to 300 u, monitoring <i>m/z</i> 272

### For More Information

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