

Gas Chromatography GC2979 Plus



▶▶▶ Characteristics:

1. Brand-new designed microcomputer temperature control system of world advanced control technology. High accuracy of temperature control (optimum : $\pm 0.05^{\circ}\text{C}$), high reliability and anti-interference.
2. Control and operating parameters (including for detectors) set up by the keyboard. Self-diagnostic system, power-fail protection, fire storage and call limited temperature setting. Accurate display of setting and actual value of temperature control of each path, bridge current of TCD, sensitivity of FID, retention and analysis time.
3. Four paths of independent control sections: column oven, sample injector, detector and thermal conductive pond.
4. 5-ramp programmed temperature rising control. Auto-drop of temperature of column oven (auto-opening the door behind the oven) to a fast cooling.
5. Dual FID provided with options of GC 2979 A-TCD, GC 2979A-ECD, GC 2979 A-FPD and GC 2979A NPD, gas sampling valve, transformation oven, absorber and pyrolysis, absorber available for selection. Two detectors can be installed at the same time with high sensitivity. Short time to be stabilized and easy to clean and install nozzle.
6. Packed column and capillary column (0.53 large diameter or small diameter) can be installed easily including a complete set of split sampling connector and tailing connector to be installed free of charge. Optional 0.53 mm large diameter capillary direct sampler is available for choice.
7. Analysis can be conducted in packed or capillary column with multiple sampling methods.
8. Packed column : on column sampling, instantaneous vaporized sampling and gas sampling.
9. Capillary column : split sampling and 0.53mm large diameter capillary direct sampling.
10. Construction of dual gas path, dual sample injector and dual packed column system can effectively avoid baseline undulation and drift in real time and facilitate programmed temperature rising analysis. Accurate and sealed type gas path control valves will provide a high repeatability and stability.
11. Advanced Functions: auto ON/OFF temperature control system, permanent data storage, file storage and call and over temperature protection.
12. Large volume column (300x280x270) can hold capillary column and dual packed column. Built in heating filament structure is in favor of quartz capillary analysis.
13. A complete set of accessories including purifier, pressure reducing valve, gas path tube, wrench and tools, injection needle and connectors of all kinds are provided free of charge and ready to connect with supply-air system prepared by users.

▶▶▶ Specifications:

Temperature control

Control range	7°C-400°C above room temperature, (increment of 1°C)
Control objects	column oven, detector, thermal conductive pond and sample injector
Programmed temperature rising	5ramps
Rate of programmed temperature rising	0.1°C-40°C (increment of 1°C)
Thermostatic time	0-655min (increment of 1°C)

▶▶▶ FID:

Sensitivity (minimum Testability)
Optimum testing result
Noise
Drift
Linear range
Compatible with 1/4", 1/8", 1/16" and capillary Columns
Flameout Detection
MDL
Maximum Temperature
Flow Setting

$M \leq 5 \times 10^{-11}$ g/s (Sample: C16)
 $M \leq 1 \times 10^{-11}$ g/s
 $\leq 5 \times 10^{-14}$ A
 $\leq 6 \times 10^{-13}$ A/h
 $\geq 10^6$

≤ 3 pg C /sec for C9 HC
400°C
Air: 0-400ml/min
H₂: 0-150 ml/min
Makeup Gas : 0-150 ml/min

▶▶▶ TCD:

Sensitivity
Noise
Drift
Linear range
Compatible with 1/4", 1/8", 1/16" and capillary Columns
MDL
Maximum Temperature

10microvolt/ppm for Nonane
 $\leq 20\mu V$
 $\leq 30\mu V$
 $\geq 10^4$
 ≤ 800 pg C12/ml He
400°C

▶▶▶ FPD:

Sensitivity (minimum Testability)
Optimum testing result
Sensitivity (minimum Testability)
Optimum testing result
Linear range

Stability
Noise
Starting Time

$\leq 2 \times 10^{-11}$ g(P)/s (sample P in The parathion methyl)
 $\leq 3.8 \times 10^{-12}$ g(p)/s.
 $\leq 1 \times 10^{-11}$ g(S)/s (sample: S in The parathion methyl)
 $\leq 2.8 \times 10^{-12}$ g(S)/s
 $\geq 10^3$ (sample P parathion)
 $\geq 10^2$ (sample S parathion)
 $\leq 30\mu V/h$
 $\leq 10\mu V$
not greater than 2 hours

▶▶▶ NPD:

NPD available with ceramic beads and compatible with element-specific sources.

Sensitivity (minimum Testability)
Optimum testing result
Sensitivity (minimum Testability)
Optimum testing result
Drift
Noise
Linear Dynamic Range
Max application temperature
Current Setting
Flow Setting:

MDL:

$Dt(N) < 5$ pg (N)/s
5 ppm
 $\leq Dt(p) < 0.5$ pg (p)/s
0.2 ppm
 $\leq 8 \times 10^{-13}$ A/h
 $\leq 5 \times 10^{-13}$ A
 $\geq 10^3$
400°C
1 to 3.5 A

Air: 0-100ml/min
H₂: 0.50 ml/min
Makeup Gas : 0-50 ml/min

≤ 0.1 pg n/sec for Methy /parathion
 ≤ 0.5 pg p/ sec for Azobenzene

▶▶▶ Optional accessories:

- 1.TCD
- 2.FPD
- 3.NPD
- 4.CDP-4A data processor
- 5.Software with I/O port

▶▶▶ Overall dimension & weight:

Shipping package dimension
Net Weight
Gross Weight

990-630-690mm
50 kg
75 kg

▶▶ Support & Services

▶▶ HPLC Servicing, Validation, Trainings and Preventive Maintenance :

HPLC Servicing :We have team of service engineers who can attend to any make of HPLC promptly @the most affordable cost.
 Trainings :We also take up preventive Maintenance to reduce downtime of HPLC's
 AMC's/CMC :We offer user training both in-House and at customer sites on HPLC principles, operations, troubleshooting.
 Validations :We have protocols for carrying out periodic Validations as per GLP/GMP/U SFDA norms
 Instruments :We offer instruments / Renting Services Modules like pumps, detector etc. on Rent.



▶▶ About Analytical Technologies

Analytical Technologies is synonymous for offering technologies for doing analysis and is the Fastest Growing Global Brand having presence in at least 96 countries across the globe. Analytical Technologies Limited is an ISO :9001 Certified Company engaged in Designing, Manufacturing, Marketing & providing Services for the Analytical, Chromatography, Spectroscopy, Bio Technology, Bio Medical, Clinical Diagnostics, Material Science & General Laboratory Instrumentation. Analytical Technologies, India has across the Country operations with at least 4 Regional Offices, 6 Branch Offices & Service Centers. Distributors & Channel partners worldwide.

▶▶ About Analytical Technologies

UV/VIS Spectro 2060+ Double Beam	PTIR	Gas Chromatograph 3000	Gas Chromatograph 2979 Plus	Flash Chromatograph	Atomic Absorption Spectrophotometer	Liquid Partical Counter
Optical Emission Spectrophotometer	DSC/TGA	NOVA 2020 plus Automated Bio Chemistry Analyzer	HEMA 2020 Hematology Analyzer	Micro Plate Reader/Washer	Water purification system	Total Organic Carbon
Fully Automated CLIA	NOVA Basic Semi -Auto Chemistry Analyzer	PCR/Gradient PCR/ RTPCR	Blood Gas Analyzer	Random access Analyzer for immunoassay Proteins & clinical chemistry	Semen Analyzer	

▶▶▶ Regulatory compliances



▶▶▶ Corporate Social Responsibility



Analytical Foundation

Analytical Foundation is a nonprofit organization (NGO) found for the purpose of:
 1. Research & Innovation Scientist's awards / QC Professional Award : Quality life is possible by innovation only and the innovation is possible by research only, hence ANALYTICAL FOUNDATION is committed to identify such personalities for their contributions across various fields of Science and Technology and awarding them yearly. To participate for award, send us your details of research / testing / publication at Info@analyticalfoundation.org

2. Improving quality of life by offering YOGA Training courses, Work shops / Seminars etc.

3. ANALYTICAL FOUNDATION aims to DETOXIFY human minds, souls and bodies by means of yoga, Meditation, Ayurveda, Health Care, Awards, Media, Events, Comps etc.

▶▶▶ Reach us @



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