Infitek

GAS CHROMATOGRAPH

Infitek Infitek Infitek Infitek Infitek

Infitek

Infitek Co., Ltd.

TEL: +86-531-88982330
FAX: +86-531-88983691
Website: infitek.com
Email: info@infitek.com
Service: support@infitek.com
Address: Rm. 2014, Bldg. 3,Ligaoguojihuayuan, No. 1222,West Aoti Road, Lixia District,Jinan, Shandong

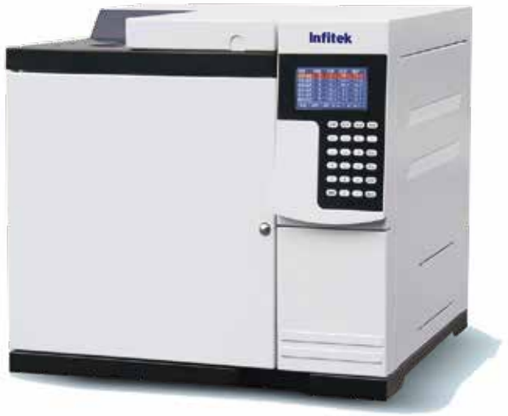
US Office

INFITEK INC.

522W RIVERSIDE AVE STE N,SPOKANE,WA 99201
EMAIL: INFO@INFITEK.COM

Gas Chromatograph

GC-900 **GC-901**



GC-900

Operation display: 4.3 inch color LCD + resistive touch screen

Temperature control range: RT +5℃～450℃, increment: 1℃, accuracy: ±0.1

Start sample injection: manual, automatic optional

Number of detectors: three; FID, TCD, FPD (optional)

Features

- Temperature control area: 7-way
- Step number of procedure temperature rising：20 steps
- Speed ratio of range rising： 0.1 ~ 40 ℃ / min
- Gas circuit control: mechanical valve control mode; Electronic pressure and flow gas circuit system (optional)
- Injection method: packed column, capillary, gas injection with six-port valve, automatic headspace injection, etc.
- Communication interface: Ethernet, serial port, USB interface

Specifications

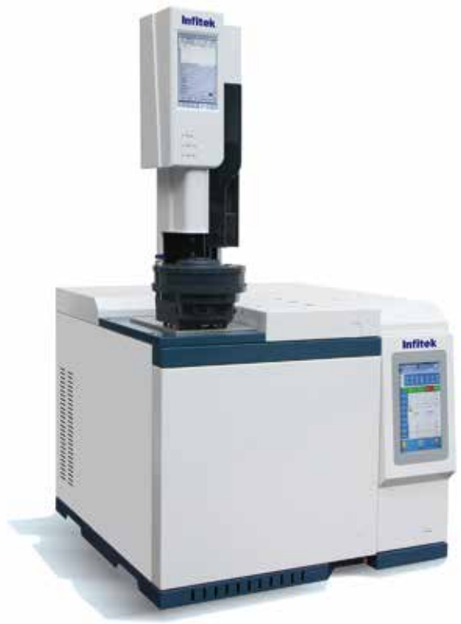
Detector	Sensitivity / Detection Limit	Drift (30min)	linearity
Hydrogen flame FID	DFID≤3×10^{-11}g/s (N-hexadecane/Isooctane)	≤0.2mv	>10^{7}
Thermal conductivity cell TCD	S≥10000mv.ml/mg (Benzene / Toluene)	≤ 20uv	>10^{5}

Gas circuit control：The EPC mode is optional

Temperature control range: RT -450°C; Increment: 0.1°C; Accuracy: 0.01°C

Step number of procedure temperature rising：16 steps

Number of detections: 3 (maximum); FID, TCD, ECD, FPD and NPD optional



GC-901

Features

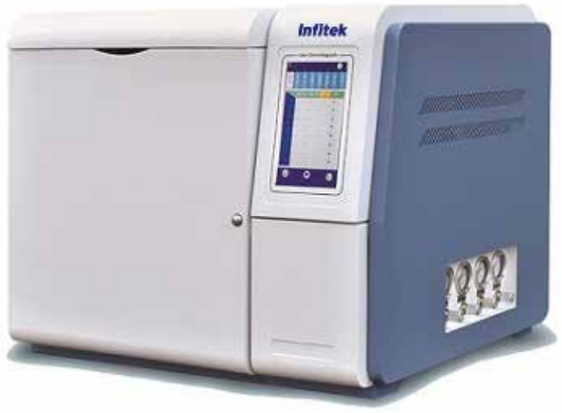
- Temperature control area: 8-way
- External events: 6-path; auxiliary control output 2-path
- Speed ratio of range rising: 0.1-80℃/min（High-speed type）
- Injection method: packed column, capillary, injection valve, automatic headspace injection optional
- EPC, EFC working mode: 2 kinds - constant current mode, constant voltage mode
- EPC, EFC working gas: 5 kinds: nitrogen, hydrogen, air, helium, argon
- EPC, EFC control range: pressure: 0-0.6MPa; flow 0-100ml/min or 0-500ml/min (air)
- EPC, EFC control accuracy: pressure 0.01psi; flow 0.01ml/min

Specifications

Detector	Sensitivity / Detection Limit	Drift (30min)	linearity
Hydrogen flame FID	DFID≤3×10^{-12}g/s (N-hexadecane/Isooctane)	≤0.2mv	>10^{7}
Thermal conductivity cell TCD	S≥10000mv.ml/mg(Benzene/Toluene)	≤20uv	>10^{5}
Electron capture ECD	DECD≤1×10-14g/ml(γ-666)	<15uv	>10^{6}
Flame luminosity FPD	DFPD(S)≤2×10^{-11}g/s (S in methyl parathion)	≤ 3% of full scale	>10^{3}
	DFPD(P)≤1×10^{-12}g/s (P in methyl parathion)		>10^{4}
Nitrogen and phosphorus NPD	DNPD(N)≤1×10^{-12}g/s (Azobenzene)	≤ 3% of full scale	>10^{2}
	DNPD(P)≤1×10^{-12}g/s(Malathion)		>10^{3}

Gas Chromatograph

GC-901A GC-I102A



GC-901A

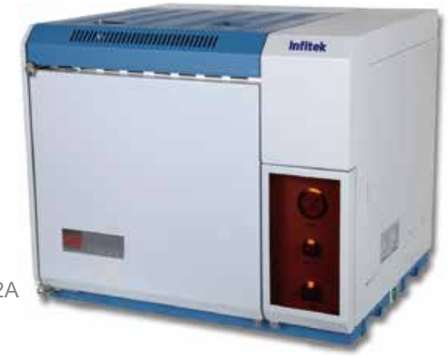
Features

- Operation display: 7-inch color LCD touch screen, which can be used as a hand-held controller
- Temperature control area: 8-way
- Temperature control range: 4℃～450℃ above room temperature, increment: 1℃, accuracy: ±0.1℃
- Step number of procedure temperature rising： 16 steps
- Speed ratio of range rising： 0.1～60℃/min
- Gas circuit control: precision mechanical valve flow control
- External events: 8-path; auxiliary control output 2-path
- Types of injectors: packed column injection, capillary injection, six-port valve gas injection, autosampler
- Number of detectors: 3 (maximum); optional FID, TCD, ECD, FPD and NPD
- Start sample injection: manual, automatic optional
- Communication interface: Ethernet: IEEE802.3

Specifications

Detector	Sensitivity / Detection Limit	Drift (30min)	linearity
Hydrogen flame FID	DFID≤3×10^{-12}g/s (N-hexadecane/Isooctane)	≤0.2mv	>10^{7}
Thermal conductivity cell TCD	S≥10000mv.ml/mg(Benzene/Toluene)	≤20uv	>10^{5}
Electron capture ECD	DECD≤1×10^{-14}g/ml(γ-666)	<15uv	>10^{6}
Flame luminosity FPD	DFPD(S)≤2×10^{-11}g/st (S in methyl parathion)	≤ 3% of full scale	>10^{3}
	DFPD(P)≤1×10^{-12}g/s (P in methyl parathion)		>10^{4}
Nitrogen and phosphorus NPD	DNPD(N)≤1×10^{-12}g/s (Azobenzene)	≤ 3% of full scale	>10^{2}
	DNPD(P)≤1×10^{-12}g/s (Malathion)		>10^{3}

As a new generation instrument, GC-I102A Gas Chromatograph applies the computer reverse control technology and can conduct remote detection and fault diagnosis, equipped with a flame ionization detector (FID).



GC-I102A

Features

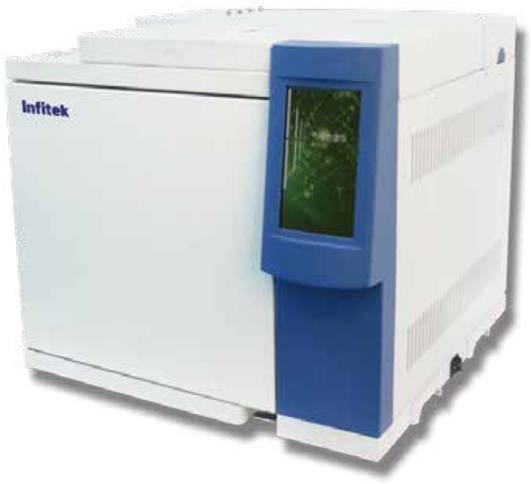
- PC control, user-friendly interface, and easy to operate.
- Temperature control is of high accuracy (better than ±0.1℃). Heating speed is fast and overshoot temperature is small.
- Self-diagnosis, power protection, oven over-temperature protection, and automatic ignition.
- It can accurately display the temperature control settings, actual value, and FID amplifier sensitivity.
- The single gas system and precise scale pneumatic control valve contribute to excellent reproducibility and stability and can perform analysis of packed column.
- Packed column: on-column injection, instantaneous vaporization injection, gas injection.
- Open computer system and NJ2000 chromatography workstation can work together to process data.
- Large capacity oven (300mm×280mm×270mm) facilitates the installation of packed column.
- Built-in heating wire structure.

Specifications

	Model	GC-I102A
Temperature Control	Temperature area	column oven, sampler, detector
	Temperature range	15℃ ~399℃ above room temperature (increment: 1℃)
	Temperature accuracy	better than ±0.1℃ (measured at 200℃)
Flame Ionization Detector (FID)	Detection limit	Dt≤1×10 g/s (octane and hexadecane)
	Baseline drift	≤2×10 A/h
	Linear range	≥10
	Max. limit temperature	400℃
Others	Voltage	220V~±22V 50Hz±0.5Hz
	Power	≤1500W
	Package size	945mm×655mm×750mm
	G.W	70kg
Optional Accessories	● N2000 chromatography workstation.	

Gas Chromatograph

GC-I112A



Features

The extendable synchronous external trigger function can initiate GC-I112Aand workstation through external signals, such as automatic sampling device, thermal analyzer and so on.

The 7-inch color touch screen on the GC-I112A can display the flow rate and pressure value of the electronic gas path.

Synchronous bidirectional control with touch screen on the GC-I112A.

The memory function can store 20-sample test modes.

One key start up function.

- The multi core, 32-bit embedded hardware system ensures the reliable operation of the instrument.
- The instrument has sound system self-checking function and malfunction automatic identification function.
- The instrument has 8 external event interface with extendable functions, which can work with a variety of functional control valve, performing according to the set timing.
- RS232 communication port and LAN port.
- N2000 chromatography workstation.

Specifications

	Model	GC-I102A
Over	Inside capacity	22L
	Temperature range	room temperature up 5℃-400℃
	Temperature accuracy	±0.1 ℃
	Temperature programming	9 step
	Program total time	9999.9 min
	Max heating rate	0.1-60℃/min
	Max cooling rate	≦10mins (250℃-50℃)
Sample Injector	Temperature range	room temperature up7℃~ 420 ℃
	Temp control type	independent
	Carrier gas flow control type	constant pressure
	Max quantity	3Pcs
	Type	Packed column or split
	Split ratio	display
	Pre column pressure range	0-400kpa
	Pre column pressure accuracy	0.1kpa
	Flow setting range	H2 0-200ml/min
		N2 0-150ml/min
Detector	FID or TCD	
	Temperature Range	room temperature up 7℃~ 420 ℃
	Max installation Qty.	2
	Ignition model	automatic
	Hydrogen Flame Ionization Detector (FID):	Logarithmic amplifier
		High Voltage Switch Control
		Baseline signal display
		Detection limit: ≦3×10^{-12} g/s(sample:
		n-hexadecane)
		Baseline noise: ≦5×10 A
		Baseline draft: ≦6×10 A
		Dynamic range: 10
		RSD: ≦3%
	Thermal Conductivity Detector (TCD)	Sencitivity:8000mV.ml/mg (sample:
		n-hexadecane)
		Baseline noise: ≦0.05mV
		Baseline draft: ≦0.15mV/ 30min
		Dynamic range: 10^5
Overall Dimension & Weight	Power	220V±22V, 50Hz±0.5Hz, 3000W
	Package size	735mm×725mm×835mm
	G.W.	82kg
	N.W.	70kg

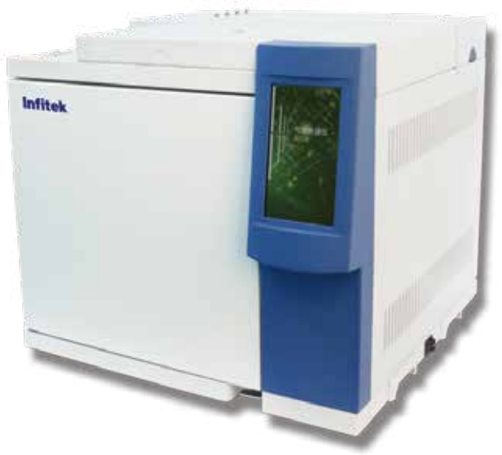
Gas Chromatograph

GC-I112N

Features

Standard PC side reverse control software, built-in chromatographic workstation, achieve PC side reverse control and host touch screen synchronous bidirectional control. (GC-I112N only)

Host with 7-inch color touch screen, carrier/hydrogen/air channel flow (pressure) digital display.



One-button start function, with 20 groups of sample test mode memory function.

The multi-core, 32-bit embedded hardware system ensures the reliable operation of the instrument.

Gas shortage alarm protection function; Heating control protection function (when opening the door of the column box, the motor of the column box fan and the heating system will shut down automatically).

- Split flow/split ratio can be automatically controlled to save carrier gas.
- Configure automatic sampler installation and positioning interface to match automatic sampler of various specifications.
- Using logarithmic amplifier, detection signal no cut-off value, good peak shape, extensible synchronous external trigger function, can be started by external signals (automatic sampler, thermal analyzer, etc.) at the same time the host and workstation.
- It has perfect system self-check function and fault automatic identification function.
- With 8 external event extension function interface, can be selected with various function control valves, and according to their own set time sequence work.
- RS232 communication port and LAM network port, and the configuration of data acquisition card.

Specifications

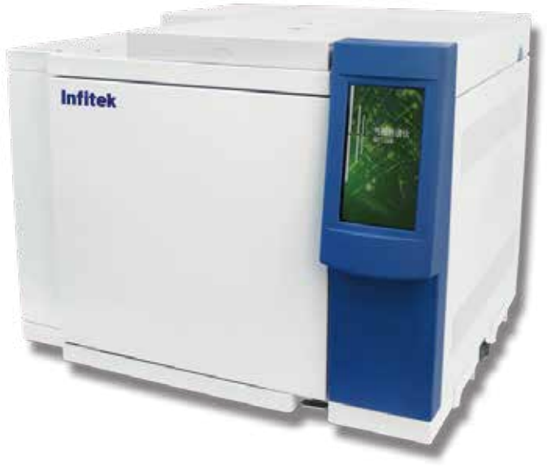
	Model	GC-I112N
Column temperature box	Content product	22L
	Temperature control range	5℃ ~ 400℃ at room temperature
	Temperature control accuracy	±0.1℃
	Heating rate	0.1 ~ 60℃ / min
	Program temperature rise order	9
	Program heating repeatability	≤ 2%
	Cooling way	open the door after
	Cooling speed	≤10 mins (250℃ ~ 50℃)
Control software function	GC-I112N only	Column temperature box control
		Detector control
		Injector control
		Map display
Sampler	Temperature control range	7℃ ~ 420℃ at room temperature
	Temperature control method	independent temperature control
	Carrier gas flow control mode	constant pressure
	Number of simultaneous installations	3 at most
	Type of injection unit	filling column, shunt
	Split ratio	split ratio display
	Cylinder pressure range	0 ~ 400kPa
	Cylinder pressure control accuracy	0.1kPa
	Flow setting range	H2 0 ~ 200ml / min
		N2 0 ~ 150ml / min
Detector	FID, TCD optional	
	Temperature control	Max. 420℃
	Number of simultaneous installations	2 at most
	Ignition function:	automatic
		Hydrogen flame ionization detector (FID)
		Detection limit: ≤ 3×10 g/s (n-hexadecane)
		Baseline noise: ≤ 5× 10-14A
		Baseline drift: ≤ 6× 10-13A
		Dynamic range: 107
		RSD: 3% or less
	Thermal conductivity detector (TCD)	Sensitivity: 5000mV•mL/mg (n-cetane)
		Baseline noise: ≤ 0.05 mV
		Baseline drift: ≤ 0.15mV / 30min
		Dynamic range: 105
	Supply voltage	AC220V±22V, 50Hz±0.5Hz
	Power	3000W

Gas Chromatograph

GC-I126N

Features

Computer back control and host touch screen to achieve synchronous bidirectional control.



The host machine adopts a 7-inch color touch screen with friendly man-machine interface.

Gas shortage alarm protection function; Heating control protection function (when opening the door of the column box, the motor of the column box fan and the heating system will shut down automatically).

- The multi-core, 32-bit embedded hardware system ensures the reliable operation of the instrument.
- Carrier/hydrogen/air flow (pressure) digital display.
- Split flow/split ratio can be automatically controlled to save carrier gas.
- Configure automatic sampler installation and positioning interface to match automatic sampler of various specifications.
- Data acquisition is a standard dual-channel data acquisition card with a sampling time of 50ms.
- Using logarithmic amplification plate, detection signal no cut-off value, synchronous external trigger function, can be started by external signals (automatic sampler, thermal analyzer, etc.) at the same time the host and workstation.
- It has perfect system self-check function and fault automatic identification function.
- With eight external event extension function interface, can be selected with a variety of control valves, and according to their own set time sequence work.
- The external link mode is network port connection (RJ45), which provides convenience for remote control of data.

Specifications

	Model	GC-I126N
Column temperature box	Temperature range	5℃ ~ 400℃ at room temperature
	Temperature control accuracy	±0.1℃
	Program heating	stage 9/10 platform
	Total program time	9999.9 min
	Maximum heating rate	60℃ / min
Sampler	Temperature range	7℃ ~ 420℃ at room temperature
	Fill column	split/split sampler can be installed
	Constant pressure mode	Working under constant pressure mode
	Connected simultaneously	No more than three independent sampling systems are connected simultaneously
Detector		A maximum of 2 units are installed simultaneously. FID, TCD, ECD and FPD are optional.
		Flow/pressure is displayed directly on the screen.
	Temperature setting	Max. 420℃
	Hydrogen flame ionization detector (FID)	High voltage switch control
		Baseline signal display
		Ignition coil control
		Detection limit: ≤ 3×10-12 g/s
		Sample: N-hexadecane (minimum detection quantity: 3pg/s)
		Dynamic range: 107
	Thermal conductivity detector (TCD)	Bridge voltage switch control
		Bridge current setting: 0 ~ 220 mA
		Sensitivity: 5000 mV×mL/mg
		Dynamic range: 105
	Electronic capture detector (ECD)	Radiation source: Ni63
		Detection limit: ≤8×10-14 g/s
		Sample: R 666 (minimum detection quantity: 80FG/s)
		Dynamic range: 103
	Flame photometric detector(FPD)	Temperature setting: Maximum 350℃
		Detection limit: ≤2×10-12 g/s (P) ≤4×10-11 g/s (s)
		Sample: Methyl parathion
		Dynamic range: P 103
		Dynamic range: S 102
	Heating area	In addition to the column box independent heating area, there are six heating areas. 2 injector heating zones, 2 detector heating zones and 2 auxiliary heating zones.
		The maximum operating temperature of the auxiliary heating area can reach 400℃