Gas Chromatograph

Introduction:

BK-GC901 gas chromatograph can realize full EPC electronic flow control, realize full computer control of the instrument, and can be equipped with a high-precision liquid automatic sampler. It can be widely used in many fields such as petroleum, chemical industry, environmental protection, food safety, disease control, education and scientific research, and can analyze the macro, micro and trace amounts of organic matter, inorganic matter and gas.

Features:

High-precision gas flow control system (EPC)

* High-precision gas flow control, to ensure the accuracy of GC analysis, to ensure the efficiency of daily analysis, EPC control accuracy 0.01psi.
* It realizes the self-protection of gas circuit failure, automatic ignition, re-ignition, automatic opening of the gas circuit, and one-key start.
* A variety of control combination modes of operation, automatic pressure and flow adjustment, control and display, can operate in gas-saving mode.

Color widescreen, unique design of touch keys

* 7-inch industrial color LCD screen design, more complete display information, more reasonable interface operation.
* Have two sets of operating systems in Chinese and English to meet different user needs.
* Adopt resistive touch screen, feel good, durable, double operation of screen and software to achieve seamless connection.

Leading structural design

* Modular structure design, easy to upgrade, can be equipped with a variety of high-performance detectors such as FID, TCD,ECD, FPD and NPD, etc., to meet the analysis needs of complex samples.
* Advanced sampler design, unique liner structure and special processing technology to ensure zero adsorption of samples.
* Adapt to a variety of sample injection methods such as: headspace sampler, thermal desorption analyzer, liquid automatic sampler, easily competent for the analysis of various sample types.
* Timed self-starting program can easily complete the laboratory online analysis of gas and liquid samples.

Humanized software operating system

* Adopt advanced 10/100M self-adaptive Ethernet communication interface, built-in IP protocol stack, easily form a local area network, realize long-distance transmission, remote control, and remote diagnosis.
* Equipped with IBrainChrom workstation, which can support multiple chromatographs (253 sets) to work at the same time, realize data processing and reverse control.

Data processing and countermeasures

* Have complete audit trail, user rights management, electronic signature and other functions, so that data and documents meet GMP management requirements.
* The built-in Modbus/TCP server of IBrainChrom workstation can easily connect the analysis results to DCS (distributed control system).
* 3 independent connection threads that can be connected to local, laboratory supervisors and authorities, allowing them to monitor the operation of the instrument and analyze the data in real time.

Technical Parameters:

Model	BK-GC901	
Oven	Temp. Range	RT+5~450℃
	Temp. Accuracy	≤±0.01℃
	Temp. Program	16-phase
	Max. Temp. Heating Rate	40℃/min
	Time Range	0-999.9min
Detector	Hydrogen Flame Ionization Detector (FID)	Detection limit:≤$5*10^{-12}$g/s (100ng/ul n-hexadecane-isooctane solution)
		Temperature 450℃
		Compatible with packed and capillary columns
		Baseline drift:≤$2*10^{-13}$A/30min
		Baseline noise:$3*10^{-14}$A
		Linear range:≥10^7
	Thermal Conductivity Detector (TCD)	Sensitivity:>5000mv.ml/mg (50mg/ml toluene-benzene solution)
		Temperature 400℃
		Baseline drift:≤0.1mV/30min
		Baseline noise:0.03mV
		Linear range:≥10^5(±10%)
	Electron Capture Detector (ECD)	Detection limit:≤$1×10^{-14}$g/ml (Sample: n-hexadecane δ-666)
		Linear range: ≥10^4
	Flame Photometric Detector (FPD)	Detection limit:≤$5*10^{-12}$g/s(S of 10ng/uL methyl parathion-ethanol solution) Detection limit:≤$4×10^{-12}$g/s(P of 10ng/uL methyl parathion-ethanol solution)
		Linear range (S): ≥10^3 Linear range (P): ≥10^4
		Temperature 350℃
	Nitrogen and Phosphorus Detector (NPD)	Detection limit:≤$1*10^{-12}$g/s(Azobenzene) Detection limit:≤$1*10^{-12}$g/s(Marla sulfur phosphorous)
		Linear range: ≥10^3
Injection Method	Capillary column split/splitless sampling (with diaphragm purging function), packed column sampling, valve sampling, gas/liquid automatic sampling system, etc.	
Inlet	1~4, up to 3 capillary column inlets	
Injection Type	Packed column injection, capillary column injection. (Flow setting range: 0~1000mL/min)	
Control Accuracy	Pressure: 0.01KPa; Flow 0.01mL/min	
Maximum Split Ratio	1:999	
Pressure Sensor	Accuracy: <2% of full scale; Repeatability: <± 0.05KPa; Range: 0~0.6MPa	
Flow Sensors	Accuracy: < 5% of full scale; Repeatability: 0.5K Pa (full scale); Output offset (accuracy): ±5%	
Sampling Valve	Can be equipped with multiple imported automatic control valves, which can run automatically in sequence	
Power Supply	AC220V±10%, 50/60Hz	
Standard Accessory	FID detector, Chromatography workstation software, Capillary sampler	
Optional Accessory	Sample injection system, TCD, ECD, FPD and NPD detector, Chromatographic column.	
Package Size (W*D*H)	750*710*720 mm	
Gross Weight	70kg	