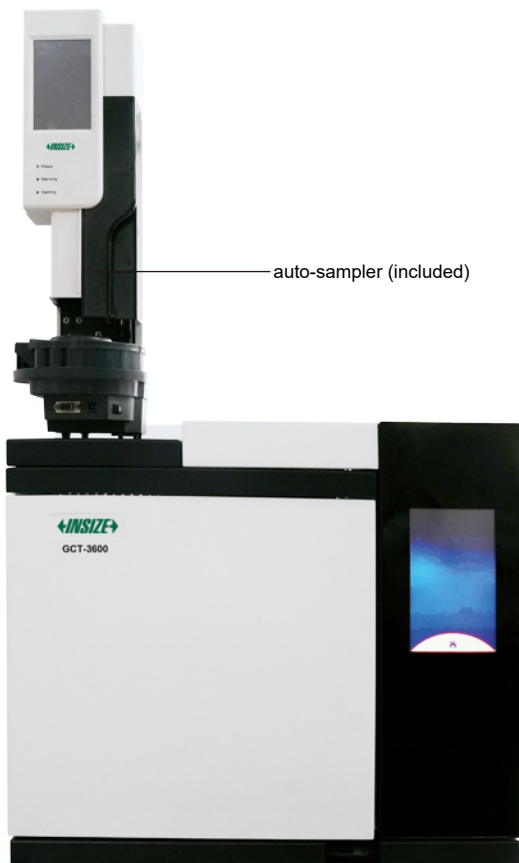


GAS CHROMATOGRAPHY (ADVANCED TYPE) CODE GCT-3600

ANALYSIS METHODS AND CONFIGURATIONS CAN BE CUSTOMIZED ACCORDING TO INSPECTION REQUIREMENTS



hydrogen generator (included)



air generator (included)



electronic balance (optional)

- Widely used in the analysis, testing, and research work in petroleum and petrochemical industries, environmental analysis, food analysis, pharmaceutical and clinical analysis, fine chemical and polymer analysis, as well as synthetic industries
- The instrument is equipped with a 7-inch color LCD touch screen, supports hot-swappable, can be used as a handheld controller
- The instrument adopts a microcomputer system to control temperature with high precision, high reliability, and anti-interference
- The instrument is equipped with advanced electronic flow control unit (EFC) and electronic pressure control unit (EPC) to realize the digital control of the gas circuit, which greatly improves the stability of the instrument and the reproducibility of the analytical results
- Chromatography microcomputer system with MODBUS/TCP standard protocol, can be interfaced with DCS system

STANDARD DELIVERY

Main unit	1pc
Auto-sampler	1pc
Computer	1pc
Software	1pc
Detector (FID)	1pc
Hydrogen generator	1pc
Air generator	1pc
Gas purifier	1pc
Column (SE-54)	1pc
Consumable and spare parts	1set*

*Including injection needles, injection pads, graphite pads, gas connection lines and other common consumables and tools

OPTIONAL ACCESSORY

Electronic balance	8304-220
Thermal conductivity detector*	GCT-D-TCD
Flame photometric detector*	GCT-D-FPD
Electron capture detector*	GCT-D-ECD
Nitrogen phosphorus detector*	GCT-D-NPD

*The detector needs to be ordered with the main unit together, up to two detectors can be ordered

SPECIFICATION

Analysis material		hydrocarbons, carbonaceous organic matter (COC), volatile organic compound (VOCs), etc
Control System	Temperature control area	8 signals
	Temperature control range	above room temperature 4-450°C, incremental 1°C, accurate: ±0.1°C
	Program temperature rise rate	0.1-120°C/min
	Air circuit control	full electronic pressure flow control
	Measurement range	0-100Psi (pressure), 0-1000mL/min (flow rate)
	Resolution	0-0.1Psi (pressure), 0-1mL/min (flow rate)
	External control	8 signals, auxiliary control output 2 signals
	Program temperature rise step	16 steps
Detector	Type	hydrogen flame ionization detector (FID)
	Detection limit	≤3×10 ⁻¹² g/S (n-hexadecane)
	Baseline noise	≤1×10 ⁻¹⁴ A (after 2 hours of instrument stabilization)
	Baseline drift	≤1×10 ⁻¹³ A/30min (after 2 hours of instrument stabilization)
Auto-sampler	Syringe specifications	1, 5, 10, 25, 50, 100, 250, 500 (μL)
	Vial position	24 bits (customizable expansion to 160 bits)
	Solvent bottle position	2 bits (customizable expansion to 11 bits)
	Vial volume	2mL
	Injection volume	0.1-250μL
	Feed rate	fast, Slow, user-defined
	Feed mode	general, continuous, PTV, user-defined
Gas supply	Carrier gas	N ₂ ≥99.999%
	Natural gas	H ₂ ≥99.999%
	Combustion gas	dry oil-free air
Data processing		dedicated data workstation, can support multiple chromatographs of multiple channels of data processing at the same time (up to support 5000 chromatographs access), can automatically generate chromatograph folder, time folder, as well as according to the time, frequency or sequence of the named spectra file functions
Communication interface		ethernet: IEEE802.3
Working environment		15~30°C, ≤85%RH
Power supply		AC 220V, 50Hz, 3kW
Dimension (LxWxH)		560×530×480mm
Weight		60kg

DETECTORS

Thermal conductivity detector (TCD)	Code	GCT-D-TCD
	Sensitivity	≥10000mv • mL/mg (Benzene/Toluene)
	Baseline noise	≤20μv
	Baseline drift	≤20μv/30min
	TC bridge road	air break protection: protects the tungsten filament from damage
	Analysis material	purity of industrial gases such as oxygen, nitrogen, helium, etc. and VOCs
Flame photometric detector (FPD)	Code	GCT-D-FPD
	Detection limit	(S) ≤5×10 ⁻¹¹ g/s (Thiophene/Ethanol), (P) ≤1×10 ⁻¹² g/s (Methyl Parathion/Ethanol)
	Baseline noise	≤3×10 ⁻¹³ A
	Baseline drift	≤2×10 ⁻¹² A/30min
	Linear range	S≥10 ² , P≥10 ³
	Analysis material	sulfur and phosphorus containing compounds
Electron capture detector (ECD)	Code	GCT-D-ECD
	Detection limit	≤1×10 ⁻¹⁴ g/mL (Propyl Hexahydroxy/Isocotane)
	Baseline noise	≤0.03mV
	Baseline drift	≤0.2mV/30min
	Radiation source	Ni ⁶³
	Analysis material	halogenated compounds, peroxides, nitro compounds, metal-organic compounds, steroidal compounds, polycyclic aromatic compounds, etc.
Nitrogen phosphorus detector (NPD)	Code	GCT-D-NPD
	Detection limit	(P) ≤5×10 ⁻¹³ g/s (Malathion/Isocotane), (N) ≤7×10 ⁻¹³ g/s (Azobenzene/Isocotane)
	Baseline noise	≤3×10 ⁻¹³ A
	Baseline drift	≤2×10 ⁻¹² A/30min
	Linear range	≥10 ³
Analysis material	organic compounds containing nitrogen and phosphorus	