Gas Chromatograph with EPC - Touch Screen GC System - 450°C Column Oven - 0.001 psi Control

Model **MSGC-906SWISS** | Brand **Master Science**









The Master Science Gas Chromatograph EPC is a fully electronic GC with up to 18 channels of pressure and flow control and a 10-inch capacitive touch screen. Pressure is regulated to 0.001 psi with compensation for ambient temperature and pressure.

KEY HIGHLIGHTS

- Repeatable retention times
- Short cycle times
- Complex gas methods
- Planned maintenance
- Broad detector choice

AT A GLANCE

8 independent channels
TEMPERATURE CONTROL

0-50 psi, 0-200 psi
INLET PRESSURE RANGE

≥23 L; dual independent ovens
OVEN VOLUME

0.001 psi
PRESSURE CONTROL ACCURACY

Request a Quotation
Contact us for pricing, configuration options and delivery details.

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www.themsci.com

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Overview

The column oven of 23 L or more runs from 2 °C above room temperature to 450 °C and heats at 250 °C per minute or faster. Three inlets and up to four detectors can be fitted, and dual independent ovens allow multi-valve, multi-column set-ups for gas analysis.

Overview

- 10-inch high-definition capacitive touch screen
- Real-time monitoring of operating status and key components
- User-set replacement thresholds for consumables

Overview

- Large oven with fast, uniform heating
- Automatic oven over-temperature protection
- Dual column ovens with independent control

Key Benefits

Repeatable retention times
the Master Science Gas Chromatograph EPC controls pressure to 0.001 psi.

Short cycle times
fast heating and cool-down in under 3.2 minutes.

Complex gas methods
dual ovens support five valves and seven columns.

Planned maintenance
usage tracking with septum replacement reminders.

Broad detector choice
FID, TCD, FPD, ECD and NPD.

A related model is the Master Science gas chromatograph GC analyzer.

Technical Specifications

GENERAL

Brand	Master Science
Model Number	MSGC-906SWISS
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Pressure/Flow Control	Up to 18 EPC channels
Pressure Control Accuracy	**0.001 psi**
Inlets Supported	3
Temperature Control	8 independent channels
Column Oven Temperature	Room temperature +2 °C to 450 °C
Minimum Temperature Step	0.01 °C
Maximum Heating Rate	≥250 °C/min
Cooling Time	450 °C to 50 °C in <3.2 min
Temperature Programme	≥99 steps, 100 plateaus
Oven Stability	<0.01 °C per ±1 °C ambient change
Oven Volume	≥23 L; dual independent ovens
Inlet Maximum Temperature	450 °C
Inlet Pressure Range	**0-50 psi, 0-200 psi**
Maximum Split Ratio	1:10000
Flow Setting Range	**0-500 mL/min, 0-1250 mL/min; accuracy 0.01 mL/min**
Carrier Gas Modes	Constant pressure, flow or linear velocity; programmed pressure, flow or linear velocity; pulse injection
FID	450 °C; ≤1.1 pg C/s (n-hexadecane); linear range ≥10^7; auto-ignition
TCD	Sensitivity ≥12000 mV·mL/mg; noise ≤0.05 mV; linear range ≥10^5
FPD	450 °C; P ≤80 fg/s, S ≤8 pg/s (methyl parathion)
ECD	^{63}Ni source; 400 °C; ≤1.0×10^{-14} g/mL; linear range ≥10^4
NPD	400 °C; N ≤1×10^{-12} g/s; P ≤5×10^{-13} g/s
Detectors Supported	Up to 4
Display	10-inch colour capacitive touch screen

HOW THE MASTER SCIENCE GAS CHROMATOGRAPH EPC IMPROVES ROUTINE GC WORK

Drifting flows with manual regulators	electronic control with compensation.
Long waits between runs	rapid oven cooling.
Leaking septa noticed too late	replacement reminders.
Multiple instruments for refinery gas	multi-valve, multi-column capability in one unit.

Applications

The Master Science Gas Chromatograph EPC is applied to

Natural gas sulfide analysis Liquefied petroleum gas analysis Rapid refinery gas analysis Refinery flue gas analysis

Gas Path

- Full electronic pressure control
- Ambient temperature and pressure compensation
- Independent split cold trap and septum purge trap

Injection

- Split/splitless capillary, purged packed, cool on-column and PTV inlets
- Valve, headspace and thermal desorption injection
- Software control of liquid autosampler for single and sequence runs

Optional Accessories

- Automatic liquid sampler
- Headspace autosampler
- Hydrogen generator
- Compressed air generator
- FID, TCD, FPD, ECD and NPD detectors