

# GAS CHROMATOGRAPH 8204



- Micro controller / Micro convector based system.
- 4 line, 20 character backlit LCD.
- Auto diagnostics and self check on power on.
- Choice of FID, TCD, micro TCD, ECD, NPD.
- Auto cooling with forced air convection.
- Large soft touch membrane keyboard (32 key)
- Ambient to 450°C with  $\pm 0.1^\circ\text{C}$  control accuracy.
- Individual alarm set points for all zones with user settable alarm limits.
- Isothermal as well as programmable mode with 99 steps and 100 method files storage.
- Choice of inlet systems : Packed, Capillary, Methanizer, PTV, GSV etc.
- EPC / AFC / DFC, available optionally with 3 stage flow control.

Sold & Serviced by :

## **SYSTRONICS (INDIA) LIMITED**

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CHANDIGARH, CHENNAI, GUWAHATI, HYDERABAD, JAIPUR, KOLKATA,  
LUCKNOW, MUMBAI, NEW DELHI, PATNA & THIRUVANANTHAPURAM.

### FLAME IONISATION DETECTOR

Operating Temp.	: Ambient to 450°C
Amplifier Gain	: X1, X10, X100
Sensitivity	: > 20 ppb of CH <sub>4</sub> (1X10 <sup>-12</sup> A)
Linear Range	: 1 X 10 <sup>7</sup>
Noise	: < 1% / day (< 2 mV)
Drift	: < 1% / day (< 5mV/min)
Zero Balance	: Two multi turn potentiometers
Attenuator	: Rotary type from X1 to X1024
Output	: To recorder 1mV or 10mV or 1VDC to PC

### ELECTRON CAPTURE DETECTOR

Operating Temp.	: Ambient to 400°C
Types	: Coaxial with 15 mCi source
MDL	: < 0.04 pg/Sec. Lindane
Dynamic Range	: > 10 <sup>4</sup>

### THERMAL CONDUCTIVITY DETECTOR

Operating Temp.	: Ambient to 450°C
Type	: Flow through or semi diffusion
Current Range	: UP to 350mA (adjustable)
Bridge Current Supply	: Constant current mode
Sensitivity	: 100ppm of O <sub>2</sub> in N <sub>2</sub>
Zero Balance	: Two multi turn potentiometers
Attenuator	: Rotary type from X1 to X1024
Current Monitoring	: By 4 Digit LED
Electronic Amplifier	: Included in design with gain of 10 or 100

### NITROGEN PHOSPHORUS DETECTOR

Operating Temp.	: Ambient to 400°C
Sensitivity	: N : < 0.4 pg N/Sec. for azobenzene (555MBq) of Ni <sup>63</sup>
Linear Range	: P : < 0.05 pg P/Sec. for malthion
Selectivity	: N : > 10E(4), P : > 10E(3) : N : 25,000 gN/gC, P : 250,000 gP/gC

**Micro TCD** : Dual filament TCD is standalone unit consisting of the detector housing & a controller with electrometer & temperature controls. The detector coil includes two separate Nickel/Iron filaments capable of independent or referenced (differential) operation. Cell volume and geometry are optimized for capillary chromatography and enhanced sensitivity at low flow rates. (Recommended total flow rate : 2-10ml/min)

## SPECIFICATIONS

### CONTROL SYSTEM

Controller	: 24 bit Micro controller
Controller Interface	: 32 Key membrane keypad
Display	: 4 lines 20 Characters back-lit
Temperature Zones	: Up to 6 Numbers
Auxiliary Control Zones	: Up to 8 zones (Optional feature)
Numbers of Methods	: 100 methods

### COLUMN OVEN

Inner Volume	: 22 ltrs.
Temperature Range	: Ambient to 450°C
Cryogenic Option	: Available as option
Temperature Display	: 4 line LCD dual display
Temperature Accuracy	: ±0.5% of set temperature
Temperature Stability	: ±0.1°C
Over Heat Protection	: Dual electronics & s/w
Auto Cooling Option	: Forced air cooling auto
Heating Rate	: 50°C to 350°C in 7 min
Cooling Rate	: 350°C to 80°C in 8 min
Programming Steps	: 100 segment ramp & soak
Temperature Setting	: 0.1°C / 1.0°C

### CHOICE OF PNEUMATICS

Pressure and Flow Control	: Two stage
Flow Control Option	: FCV/DFC/DMFC/AFC/EPC/EPP
EPC Settability	: 0.1 PSI to 999 PSI
Programmable Steps	: Up to 16 steps

### INJECTORS INLET SYSTEMS

Choice of Inlet Systems	: All available
Number of Injectors	: Up to 4
Temperature Range	: Ambient to 450°C
Temperature Read out	: 4 line LCD dual display
Temperature Accuracy	: ±0.5% of set temperature
Temperature Stability	: ±0.1°C
Over Heat Protection	: Dual electronics & s/w

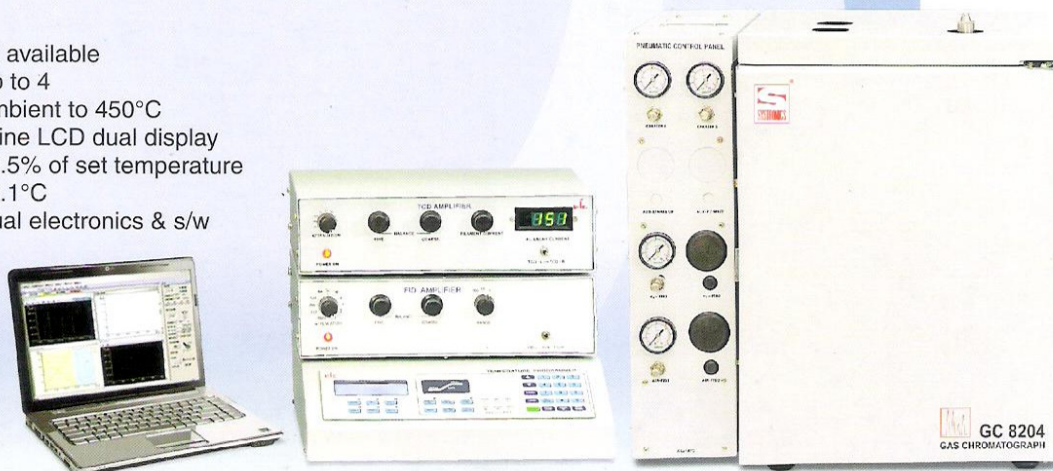
### DETECTORS

Choice of Detectors	: FID/TCD/μ-TCD/ECD/NPD
Number of Detectors	: Any 3
Temperature Read out	: 4 line LCD dual display
Temperature Accuracy	: ±0.5% of set temperature
Temperature Stability	: ±0.1°C
Over Heat Protection	: Dual electronics & s/w

### GENERAL SPECIFICATIONS

Results Re -Transmission	: Up to 900 meters optional
Conversion to OLGC	: Yes
Ethernet Connectivity	: Available optionally
Voltage Input	: 220 VAC ±10%
Power Requirements	: 3.5 KVA
Operating Temperature	: 0 ~ 50°C
Humidity	: 0 ~ 90% NC RH
Weight	: Approx. 45 Kgs

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\*Technical Specifications, Appearance & model number are subject to change without prior notice in keeping up with the state of art.