









GAS CHROMATOGRAPH - 8200



- Color touch screen for complete system control & monitoring.
- Auto tuning PID temperature control.
- EPC for up to 8 channel with 2 programmable zones & 6 isothermal zones.
- Up to 12 auxiliary device control.
- Programmable FID with time based sensitivity settings.
- Programmable TCD with superb current stability & repeatability.
- · Extensive auto diagnostics.

Sold & Serviced by:

SYSTRONICS (INDIA) LIMITED

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BRANCHES AT: BENGALURU, BHOPAL, BHUBANESHWAR, CHANDIGARH, CHENNAI, GUWAHATI, HYDERABAD, JAIPUR, KOLKATA, LUCKNOW, MUMBAI, NEW DELHI, PATNA & THIRUVANANTHAPURAM.

The North Star, a touch screen based Gas Chromatograph system comes with smart features & advanced specifications comparable with the best. A fully loaded North Star is self sufficient and can be configured to work as an OLGC, TOGA, RGA, NGA. It can also be coupled with head space & auto sampler systems.

Type

Operating Temp.

Current Range

Zero Balance

Current Monitoring

Electronic Amplifier

Attenuator

Sensitivity

FLAME IONISATION DETECTOR

Operating Temp. : Ambient to 450°C Amplifier Gain : X1, X10, X100

Sensitivity : > 20 ppb of CH4 $(1X10^{-12} A)$

Linear Range : 1 X 107

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



NITROGEN PHOSPHORUS DETECTOR

THERMAL CONDUCTIVITY DETECTOR

Bridge Current Supply: Constant current mode

Operating Temp. : Ambient to 400°C

Sensitivity: N: < 0.4 pg N/Sec. for azobenzene

: By 4 Digit LED

: Ambient to 450°C

: 100ppm of O₂ in N₂

: Flow through or semi diffusion

: Two multi turn potentiometers

: Rotary type from X1 to X1024

: UP to 350mA (adjustable)

: P: < 0.05 pg P/Sec. for malthion

: Included in design with gain of 10 or 100

Linear Range : N:> 10E(4), P:>10E(3)

Selectivity : N: 25,000 gN/gC, P: 250,000 gP/gC

ELECTRON CAPTURE DETECTOR

Operating Temp. : Ambient to 400°C

Types : Coaxial with 15 mCi source

(555MBq) of Ni⁶³

MDL : < 0.04 pg/Sec. lindane

Dynamic Range : > 104

PDHID The award winning PDHID detector can be installed in the system, which is universal detector for analysis of low ppm and ppb range. The detector is non destructive type and can be configured to work as ECD, NPD, TID, FPD, FID, HID or TCD depending upon the dopant gas and carrier gas used.

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 : ¼" VGA Touch Screen

Display : 4000 Colors

Temperature Zones : Up to 8 - 2 Prog. & 6 Isothermal Pressure Zones : Up to 8 - 2 Prog. & 6 Isothermal Auxiliary Control Zones : Up to 12 with 4 step Prog.

Numbers of Methods : Unlimited

COLUMN OVEN

Inner volume : 22 ltrs.

Temperature Range : Ambient to 500°C
Cryogenic Option : Available as option
Temperature Display : Dual color display PV & SP
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 : 32 segment ramp and soak

Temperature Setting : 0.1°C / 1.0°C

CHOICE OF PNEUMATICS

Pressure & Flow Control : Three stage

Flow Control Option : FCV/DFC/DMFC/AFC/EPC/EPP/MMV

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 : Dual color display PV & SP Temperature Accuracy : ±0.5% of set temperature

Temperature Stability : ±0.1°C

Over Heat Protection : Dual electronics & s/w

DETECTORS

Choice of Detectors : $FID/TCD/\mu$ -TCD/PDHID/ECD/NPD

Number of Detectors : Any 3

Temperature Read out : Dual color display PV & SP Temperature Accuracy : ±0.5% of set temperature

Temperature Stability : ±0.1°C

Over heat Protection : Dual electronics & s/w

GENERAL

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 KVAOperating Temperature : $0 \sim 50^{\circ}\text{C}$

Humidity : $0 \sim 90\%$ NC RH Weight : Approx. 45 Kgs

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