

TECHNICAL SPECIFICATION

INJECTORS

Split/Splitless

- Supplied as standard.
- Min Temp 60°C.
- Max Temp 280°C.

- Split Linearity better than 3% up to 200:1.

Capillary On-Column Adaptor

- Available as optional accessory.

Gas Sampling Valve

- Available as optional accessory.

GAS CONTROLS

- Electronic pressure control of carrier gas of 0.3 to 50Psi fully programmable with up to five ramps. Maximum total flow 250ml/min.
- Detector gas control fixed sinter (apply the specified pressure to the instrument and the detector will work)
- Optional two channel gas box to allow variability of detector gasses.

COLUMN OVEN

- Accommodates all Capillary Columns up to 7 inch cage, max length 120 metres (5" cages required above 60 metres).
- Packed Column capability optional accessory.
- Accommodates " Packed Columns, max length 3 metres (Packed Columns from CSi only).
- Temp Range is from 15°C above ambient to 300°C
- 5 Ramp Temp Programming.
- Ramp Rates are up to 40°C/minute below 200°C, up to 20°C/minute above 200°C.
- Max Isothermal Temp 240°C.

DETECTORS

- FID, TCD or ECD
- Temp Range is from 100°C to 320°C.
- FID Min Detectable Quantity is 5×10^{-12} grams of Carbon (signal 3x noise level)
- FID Linear Range is 10^6 .
- TCD has 4 Tungsten Filaments.
- TCD Filament Temps are 180°C, 240°C or 320°C.
- ECD Min Detectable Quantity is 0.05×10^{-12} grams of Lindane (signal 3x noise level)
- ECD Linear Range is 10^9 .

CONTROL

- Keypad, with 2x16 Characters Backlit LCD.
- 5 Stored Methods.
- Standard RS232C Interface allows methods to be stored and loaded from PC using ChromStar GC Control Software (optional accessory).
- 1V/10V Analogue Outputs.
- Run Line Control allows the use of most Recorders, Integrators and PC-based Integration Packages.

SIZE/WEIGHT/POWER/COLOUR

- Size Height 16cm, Width 41cm, Depth 34cm.
- Weight 7.5 Kilos, 16.5lbs
- Power 800VA, 230V/50/60Hz, 115V/50/60Hz
- Blue, Green, Orange, Violet or Grey.

Cambridge Scientific Instruments is constantly seeking to improve its products and services and therefore reserves the right to amend specifications as a consequence.

ORDER GUIDE:-

FID Detector Versions

P/N 20520130 - 200 Series Gas Chromatograph
Split Splitless, FID, EPPC Gas Controls, 50Hz/230V
P/N 20521130 - as above, 60Hz/115V

TCD Detector Versions

P/N 205202030 - 200 Series Gas Chromatograph
Split Splitless, TCD, EPPC Gas Controls, 50Hz/230V
P/N 20521230 - as above, 60Hz/115V

ECD Detector Versions

P/N 20520330 - 200 Series Gas Chromatograph
Split Splitless, ECD, EPPC Gas Controls, 50Hz/230V
P/N 20521330 - as above, 60Hz/115V

200 Series Autosampler

P/N 20500001 - 23 position automatic injection system

ACCESSORIES

P/N 20010001 - FID Gas Control Box
P/N 20522041 - 1/8" Packed Column Capability
P/N 20522042 - Capillary On-Column Adapter
P/N 20522043 - Manual Gas Sampling Valve
P/N 20522056 - Chromstar GC Control Software
P/N 20622057 - Clarity Lite – 1 Channel Integration Software – PCI Version
P/N 20622058 - Clarity Lite – 1 Channel Integration Software – USB Version
P/N 20622059 - Clarity – 1 Channel Integration Software – PCI Version
P/N 20622060 - Clarity – 1 Channel Integration Software – USB Version
P/N 20622061 - Clarity – 2 Channel Integration Software – PCI Version
P/N 20622062 - Clarity – 2 Channel Integration Software – USB Version
P/N 20622063 - Clarity – 4 Channel Integration Software – PCI Version
P/N 6000 - Solid State Flowmeter

CONSUMABLES FOR 200 SERIES GC

P/N 41134000 - Moisture Trap
P/N 41134001 - Organics Trap
P/N 41134002 - Oxygen Trap
P/N 21135884 - 1µl Liquid Syringe
P/N 21145166 - needle and plunger kit (for 21135884)
P/N 21135846 - 100µl gas tight Syringe
P/N 21135854 - 500µl gas tight Syringe
P/N 21149221 - Replacement needles for 21135846 and 21135854
P/N 21133501 - Septa (PK 50)
P/N 21131322 - Injector Liner – Splitless 2mm id
P/N 21131970 - Injector Liner – Split, no frit 3.4mm id
P/N 21132135 - Injector Liner – Split Precision, 3.4mm id
P/N 21132140 - Injector Liner – Silcosleeve Split/Splitless
P/N 100922 - Injector Insert O-rings – (inner) – (pk 10)
P/N 100958 - Injector Insert O-rings – (outer) – (pk 10)
P/N 600404 - Nickel Sealing Washer
P/N 21131322 - Ferrules - 0.4 (for 0.25mm id columns)
P/N 21131323 - Ferrules - 0.5 (for 0.32mm id columns)
P/N 21131324 - Ferrules - 0.8 (for 0.53mm id columns)
P/N 100924 - FID Collector O-ring

CONSUMABLES FOR AUTOSAMPLER

P/N 200500200 - 2ml Short-Cap Screw Thread Vials (x100)
P/N 200500210 - Pre-assembled Short Cap Screw Vial Closures (x100)
P/N 200500211 - Waste bottle diffusion caps
PN 200500201 - 4ml Waste bottle
P/N 200500105 - Syringe - 10µl
P/N 200500105 - Syringe - 5µl
P/N 200500107 - Syringe – 0.5µl

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200 Series Gas Chromatograph



A 200 Series GC System

The Status and Fault LED's, show the autosampler's current state and alert the user to any errors encountered

Start and stop control buttons

Safety

To ensure maximum safety the autosampler will not operate if it is not slid forward into the inject position and has the clear guard cover in place.

The autosampler slides easily back and forth to allow access to the oven.

Samples

Up to 23 sample positions, with up to 4 injections per vial settable in the method, make it suitable for overnight runs.

Wash and Waste

Up to 2 wash and 1 waste vials with up to 2 pre and 2 post injection washes per wash bottle selectable in the method, to prevent sample contamination.

Syringe

The 200 series autosampler can accept either 0.5, 5 or 10 μ l syringes. The injection volume can be set to either 10, 20, 50 or 100% of the syringe volume when setting up the method.

IPC (Intelligent Plunger Control) allows for self calibration of zero volume for syringe. It also monitors the plunger for any signs of resistance, (if the syringe has become sticky) and warns the user of this so the syringe can be cleaned, to avoid potential damage to the plunger.



Clarity

1 or 10v output to integration system



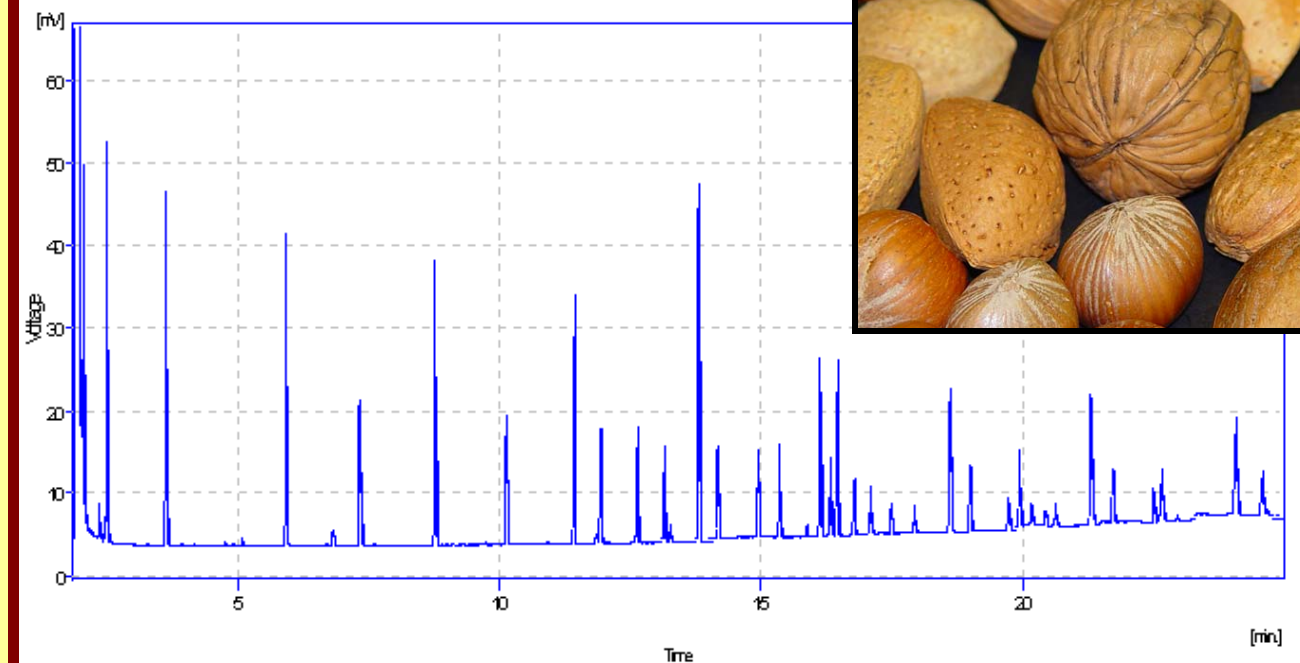
Chromstar

Either local control through the keypad with 5 internally stored methods or, create and download methods from your PC using Chromstar

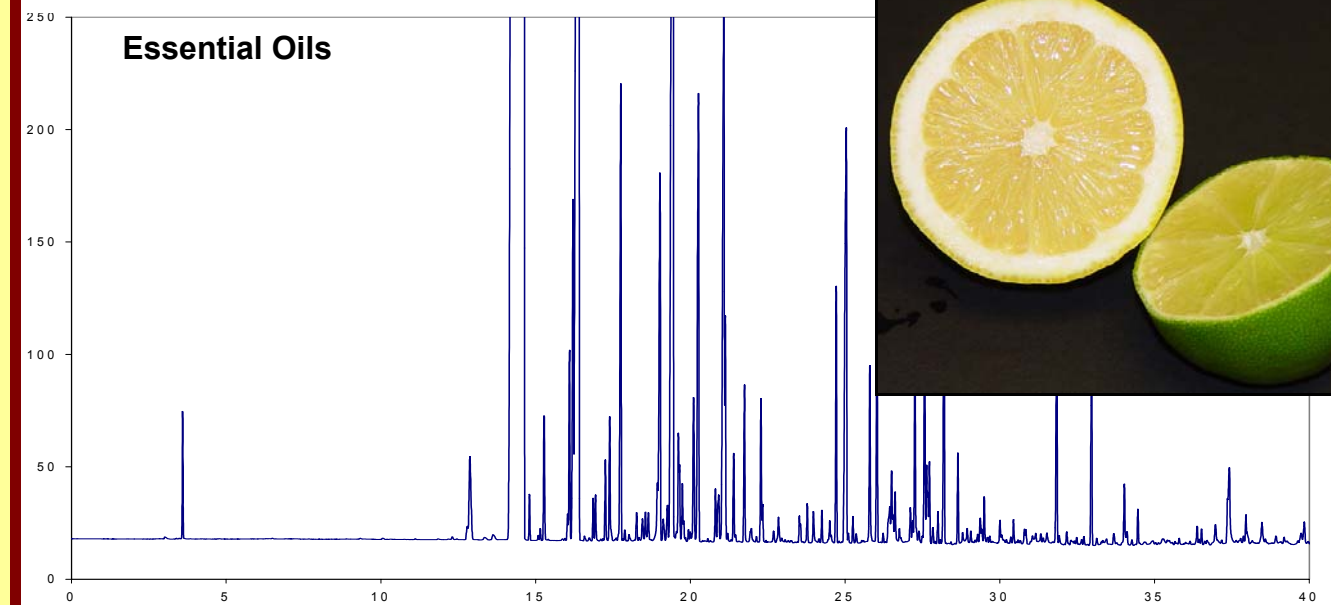
Column Oven

Accommodates all column sizes up to 7" cage, 100-530 μ l, 10m-60m, capillary and packed

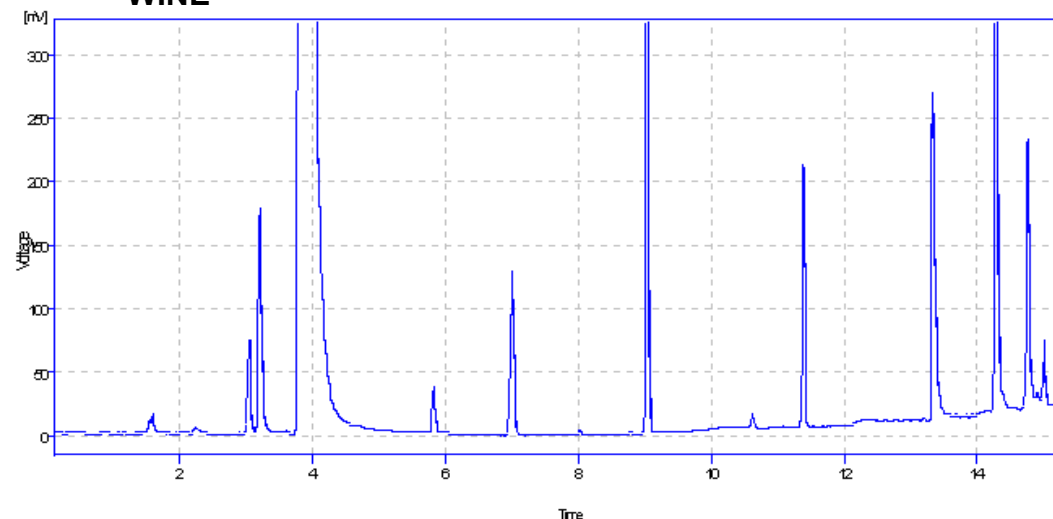
FAME



Essential Oils



WINE



CSI

Cambridge Scientific Instruments has been providing cost effective solutions to our customers for over 10 years.

The 200 series Gas Chromatograph with its patented flow through technology is now well established at providing excellent chromatographic performance and reliability at realistic prices.

Each GC is a dedicated single channel unit with Split / Split-less injector and Programmable Pressure Control as standard and a choice of three detector options.

Flame Ionisation, Thermal conductivity and Electron Capture Detectors can cover most of the analytical applications in industry today. Manual or automatic gas sampling valves can also be fitted to the 200 series GC.

With the 205 auto-sampler, Chromstar download software and Clarity Integration systems CSI can offer the complete integrated package to solve your analytical requirements.

All CSI products are designed and manufactured at our base near Ely in the UK.

