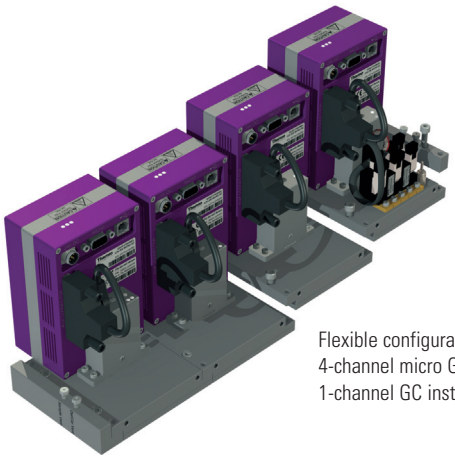
- **Your gas analysis in seconds**
- **Fast temperature programming**
- **Configurable to your demand**

Product Specifications

Thermo Scientific C2V-200 Micro GC

Built for fast reliable gas analysis

2-channel C2V-200 micro GC instrument



Flexible configuration of a 4-channel micro GC, into four 1-channel GC instruments.

Fast, Reliable and Simple. And Cost Efficient!

The C2V-200 micro GC is built for fast reliable gas analysis, in the lab or on-line. Integrated micro chip technology combined with narrow bore capillary GC columns result in a higher performance for lower costs. The C2V-200 micro GC is designed for ease of use, reduced maintenance, and low gas consumption. The exchangeable column cartridges, with integrated heating zones, can be easily installed for a variety of applications.

micro GC column cartridges (60 × 100 × 12.5 mm)

Analysis in Seconds

The integrated micro chip injector ensures a precise narrow injection bandwidth, while the fast column temperature programming gives an extra dimension in method optimization. Together this enables fast and highly repeatable analysis results in seconds.

Column Temperature Programming

With a speed of 240 °C / minute the micro GC columns can be temperature programmed up to 4 temperature segments. This unique capability enables faster solutions.

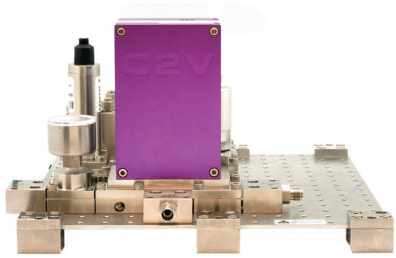
Flexible Configuration

The C2V-200 micro GC channels are independently operating micro GC's, which can be assembled as one integrated instrument with common sample and carrier path. Alternatively they can be deployed as individual stand-alone instruments. No up front investment is required, to upgrade your C2V-200 micro GC with an additional GC channel later on.

Immediate Start-Up and Easy Control

The C2V-200 micro GC is delivered with dedicated instrument control and data handling software to run on a PC. This brings you up to speed the moment you unpack the C2V-200.

For process solutions, an optional NeSSI (SP76-1.0) compatible adaptor plate enables the integration on this flexible sampling system.



C2V-200 micro GC on NeSSI platform

Product Specifications

4-channel
C2V-200 micro GC

Configuration

Flexible configurable 1-4 channel integrated micro GC system. Modular and independently operable without pre-investments for future expansion.

Column Cartridge

Column cartridges include heated detector/injector zone and a column in an oven with temperature programming. Standard available column types PDMS, MS5A, U-PLT, U-BND, QS-BND and ALOX.

Sampling

- Sample conditions: non-condensing gas of 0 °C to 50 °C
- Sample inlet: 1.6 mm (1/16") stainless steel Valco® fitting with replaceable 5 µm stainless steel filter
- Recommended sample inlet pressure/flow: 50 kPa (7 psig), 5 mL/min. Max sample inlet pressure 100 kPa (15 psig)

Optional, Software Controlled and Integrated

- 2-Stream selector (double block and bleed)
- Sample aspiration pump

Integrated Sample Injector and Detector

- MEMS based injector and detector are on-chip integrated (avoiding capillary connection tubes), with a direct column/chip coupling

Sample Injector

- Heated injector up to 120 °C
- MEMS based injector without moving parts
- Injection volume: 0.2 µL to 9.0 µL, time based software selectable

Detector

- Dual-channel MEMS micro Thermal Conductivity Detector (TCD)
- Internal flow path: 20 nL
- Inert coated filaments

Detection Limits

- WCOT columns: < 2 ppm
- PLOT columns: < 8 ppm

Limits will vary by component, sample matrix, injector type, carrier gas and interferences.

Operating Range

- Concentrations: 2 ppm to 100%
- Linear dynamic range: 10^6

Repeatability

- < 0.4% RSD on peak area
- < 0.2% RSD on peak retention time for WCOT columns with C1-C6 components at % level, at constant ambient 25 °C

Column Temperature Control

2 modes: Isothermal or T-programmable

Isothermal

- Minimum 50 °C to 180 °C
- Temperature stability: < 0.2 °C

Temperature Programming

- Minimum 50 °C to 180 °C
- T-ramp up: 240 °C per minute
- T-ramp down: 60 °C per minute
- Temperature repeatability: ≤ 0.2 °C
- T-programming profile: up to 4 segments

Carrier Gas

- All major carrier gasses helium, nitrogen and argon. Hydrogen use requires a safety device.
- Instrument inlet: 500 ± 10 kPa (72.5 ± 1.5 psig)
- Column pressure control 50 – 300 kPa, user selectable
- Carrier inlet: 1.6 mm (1/16") stainless steel Valco fitting with replaceable 5 µm stainless steel filter

Optional: different carrier gas per channel

External Input/Output

- 4x external valve control
- Analog I/O: 2x 0-5 V in
- Analog I/O: 2x 0-5 V out
- Remote start (signal input)
- Start out (signal output)

Instrument Control

- C2V-micro GC software, Windows® compatible, XP and Windows Vista®
- Communication: USB 2.0, RS-232, optional RS-485
- Control and read-out of up to 4 micro GC channels
- Method development
- Sequence builder with method and stream selection

Data Handling

- Peak identification, integration
- Single run and sequence reporting
- Trend analysis, statistics

Software Option

- NGAC-Natural Gas Application Calculation C6+ acc. to ISO 6976

Power

Power supply for 2 micro GC channels:

- Input: 100 – 240 Vac, 50 – 60 Hz, 200 VA
- Output: 2 × 24 Vdc at 4 A, typ. 20 W; max. 2 × 100 W

Environmental Conditions

- Operating temperature range: 10 °C – 35 °C
- Relative humidity: 5 to 85%, non-condensing
- Altitude: to 2000 m

Dimensions/Weight per Micro GC Channel/Module

Max. Weight:	3.5 kg/1 kg
Height:	15 cm/12.5 cm
Width	12 cm/8.5 cm
Depth:	12 cm/6 cm

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