

C1 to C6+

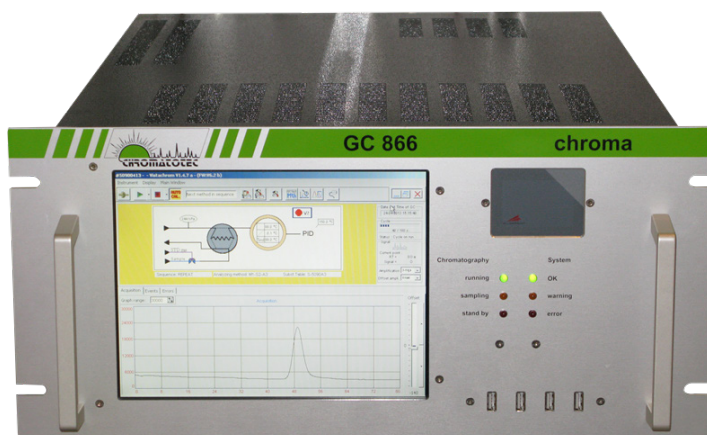
CH₄O₂CO₂

CO

N₂

chromEnergy DC12

Continuous natural gas measurement
Automated system for measurements in the range: ppm or %



Model: C43022

Main applications:

Heating value measurement
Trace contaminant monitoring
Pipeline integrity
Product quality / process control

Targetted compounds and results:

C6+ / N₂ / CO₂ / C₂ / C₃ / IC₄ / NC₄ / NeoC₅ / IC₅ / NC₅ / **CO** / **O₂**
ICV / SCV / WOBBE / Density / Relative density / Z mix / Mass molar

Main markets:

Petrochemical
Gas transport
Process

Option: flow control with 4-20 mA

Chromatotec® is specialized in VOC, Sulfur and permanent gases analysis down to ultra trace levels (%, ppm, ppb, ppt).
Please visit our website for more details

Updated: December 2017

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Continuous natural gas measurement

Automated system for measurements in the range: ppm or %



Description:

The chromEnergy DC12 is an industrial gas chromatograph for analysis and monitoring of C1C6+ in natural gas and gaseous fuels by TCD detection.

Principle:

Doube GC with 2 TCD in one instrument and one supervisor/Vistachrom

- One GC with precolumn and Porapack for N2 and C1 and C2 and CO2 with column 3 with molecular Sieve for O2 and CO
- Second GC with precolumn and column DC 200 for C6+ and C3 and IC4 and NC4 and NeoC5 and IC5 and NC5
- Automatic sampling using a loop
- Loop injection by automatic valve on the column
- Back flush column for C6+ analysis and column cleaning
- Isothermal gas chromatograph
- Detection of all compounds eluting from the column performed by the micro TCD detector

Key points:

- Continuous monitoring with automatic online sampling
- A pressure safety is located at detector outlet to protect the filament
- Calorific value unit is configurable on request
- Low maintenance instrument
- Full traceability of results and calibration
- Automatic control with process device
- Intelligence system with tunable and interactive alarms levels
- Powerfull VISTACHROM® Chromatotec® software included in the flow computer:
 - Remote monitoring & injection control
 - Full traceability with on board archiving of results and chromatograms
 - QC Set up and control of threshold alarms
 - Data export by MODBUS / 4-20 mA / 0-10 V
 - Time stamp results
 - Algorithms using analog and digital signals received from flowmeters, temperature, pressure and density transmitters

Technical specifications:

Detection limit:

- Down to 10 ppm on Hexane

Detection range:

- ppm to %

Relative Standard Deviation: Repeatability:

- RSD < 3 % over 48 h (concentration)
- RSD < 0.5 % over 48 h (retention time)

Supervisor:

- Embded computer Windows® based with LCD display
- 32 GB of Hardware storage on SSD memory

Communication:

- Communication protocol MODBUS

Cycle time:

- 6 minutes for C6+ / N2 / CO2 / C1 / C2 / C3 / IC4 / NC4 / NeoC5 / IC5 / NC5 / **CO** / **O2**

Gas supply:

- Carrier gas: He (4 bar; 1/16"): 18 ml/min
- Calibration inlet: 1 bar; 1/16"
- Sample inlet: 1 bar; 1/16"
- Pneumatic valve 90 ml/commutation

Power supply:

- Main (230 V / 115 V 50 Hz/60Hz)

Electric consumption:

- Average: 100 VA; Peak: 200 VA

Dimensions and weight:

- Rack: 19" (5U)
- Height: 222 mm
- Width: 482 mm
- Depth: 660 mm
- Net weight of analyser: 22 kg

Available options:

- Explosion proof Exp box
 - ATEX Zone 2 : Ex II 3G Ex pz IIC T4
 - CSA International Class 1 Div 2, group B, C & D
- Multiple stream selector (up to 16 streams with one analyzer)
- Calculation modules (average / statistics / heating value...)
- Module 4-20 mA / 0-10 V 4 output and 0 mA for instrument default
- Electric selection valve to reduce air consumption
- Gas cleaner
- 24 V DC power supply
- Carrier gas purificator
- **Flow control with 4-20 mA**

To order:

Model:

chromEnergy DC12 (integrated computer)	C43022
Cabinet for ATEX Zone 2	XXX060-Z-ATEX
Cabinet for CSA Class 1 Division 2	XXX060-Z-CSA
CSA International certification	XXX061

Chromatotec® is continuously improving its products, therefore these specifications are subject to change without notice

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