

C1 to C6+

CH<sub>4</sub>CO<sub>2</sub>N<sub>2</sub>

# chromEnergy

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



Model: C42022 (5U)

### Main applications:

Heating value measurement  
Natural gas composition  
Propane composition  
Product quality / process control

### Targetted compounds and results:

C6+ / N<sub>2</sub> / CO<sub>2</sub> / C2 / C3 / IC4 / NC4 / NeoC5 / IC5 / NC5  
ICV / SCV / WOBBE / Density / Relative density / Z mix / Mass molar

### Main markets:

Petrochemical  
Gas transport  
Process

### Standards:

ISO 6974-4, ISO 6976

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

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Continuous natural gas measurement

Automated system for measurements in the range: ppm or %



## Description:

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

## Principle:

- 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, more than 10 years data storage
- Automatic control with process device
- Intelligence system with tunable and interactive alarms levels
- Powerful 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

## 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

## 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:

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

### Communication:

- Communication protocol MODBUS
- 4-20mA
- Ethernet

### Cycle time:

- 12 minutes for C6+ / N<sub>2</sub> / CO<sub>2</sub> / C1 / C2 / C3 / IC4 / NC4 / NeoC5 / IC5 / NC5
- 6 minutes in option

### Gas supply:

- Carrier gas : He (4 bar; 1/16") : 18 ml/min
- Calibration inlet: 1 bar; 1/16"
- Sample inlet: 1 bar; 1/16": 20ml/min
- Pneumatic valve 90 ml/commutation (0 ml in option)

### 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

## To order:

## Model:

chromEnergy (integrated computer)	C42022
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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