

C1 to C6+

CH₄CO₂N₂

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+ / N₂ / CO₂ / 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*

Updated: December 2017

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 purifier

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+ / N₂ / CO₂ / 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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