GAS ANALYZER GC 866

THT

TBM

H_2S

DMS

DMDS

ODORANTS

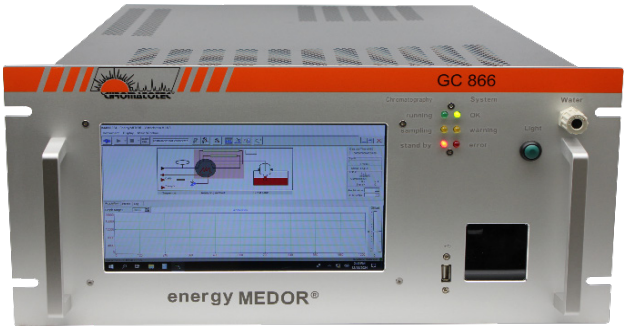
ET-SH

BU-SH

energyMEDOR®

ppm (M41) or **ppb** (M42)

Online analysis and monitoring of sulfur compounds in natural gas and gaseous fuels



Model: M41022

Model: M41022 - Atex - 21 - Exd

Main applications:

Impurities detection in Natural Gas / LPG / Propane / Butane
Deodorisation control ppb
Propellant gas
Catalyzer protection
Natural gas or LPG odorisation control ppm

Targetted compounds:

In standard: THT / H_2S / DMS / Mercaptans: MM / EM / IPM / TBM /NPM/ MES/ 2 BM
In option: IBM / NBM

SCAN or CLICK ME

Main markets:

Petrochemical
Gas transportation
Process
Fiscal metering station

Standard:

ASTM D7493-22, D7165-22 & D5504-20, ISO 19739:2004, DIN 51855/7

Certifications:

GOST

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: October 2025

energyMEDOR®

ppm (M41) or **ppb** (M42)

Online analysis and monitoring of sulfur compounds in natural gas and gaseous fuels

Description:

The energyMEDOR® is an autoGC-ED (MEDOR® Electrochemical wet cell Detector) for the analysis and monitoring of sulfur compounds in natural gas and gaseous fuels: H_2S, Mercaptans, Sulfides.
Two versions exist:

- The energyMEDOR® ppm (which measures at ppm levels)
- The energyMEDOR® ppb (which measures at ppb levels).

Principle:

- Automatic sampling using a loop
- Automatic loop injection on metallic capillary column
- Isothermal gas chromatograph
- Detection of all compounds eluting from the column performed by MEDOR® Detector:Electrochemical wet cell Detector which is SSD Sulfur Specific Detector.
- Signal provided by electrochemical reaction between the wet cell electrolyte and the sulfur compounds

Key points:

- Fully compliant with ASTM D 7493-22 : Standard Test Method for On-line Measurement of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatograph and Electrochemical Detection
- Continuous monitoring with automatic online sampling
- Analytical performances:
  - Specific, linear and very sensitive to sulfur compounds
  - Results validation by automatic standard injection
  - Long term stability using wet cell detector installed in reservoir
- Extremely low maintenance
  - Very long life time detector with electrolyte, up to 10 years
  - Low gas consumption, can be reduced in option
  - More than 10 years data storage
  - No cylinders required thanks to internal calibration tube
- Automatic control with process device
- Intelligence system with tunable and interactive alarms levels

- Powerfull VISTACHROM Chromatotec® software:
  - 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

Available options:

- Explosion proof version Exp or Exd for Atex IECEx zone 1 and 2 group IIC T4 and also for C1D2 group B, C & D T4
- Internal calibration and validation system with permeation tube
- Multiple stream selector (up to 16 streams with one analyzer)
- Calculation modules (Average / Statistics / Odor index...)
- Automatic data transfert through: Module for 4 outputs 4-20mA (with 0 mA for instrument default / 0-10 V / Modbus RTU or TCP IP
- Electric selection valve to reduce air consumption
- 24 V DC power supply
- Nitrogen generator for safe or hazardous area
- Second electrochemical detector for **COS** measurements (Reference **XXX945**)
- Automatic tank filling
- Sealproof detector

Technical specifications:

Detection limits:

- energyMEDOR® ppm:
  H_2S: 0.1 ppm (0.1417 mg/m³), mercaptans: 0.1 ppm
- energyMEDOR® ppb:
  H_2S: 5 ppb (7.0 µg/m³), mercaptans: 5 ppb

Range (adjustable depending on application):

- 0/10 or 0/100 or 0/1000 (ppb or ppm)

Relative Standard Deviation:

- RSD < 3 %: on concentration over 48 h
- RSD < 0.5 %: on retention time over 48 h

Cycle Time for the following different analysis:

• H2S/ MM / EM	300 s
• H2S, mercaptans 1,THT	720 s
• H2S, mercaptans 1,THT	900 s with CALIB for validation of each analysis
• H2S, mercaptans2,THT	1200 s

Supervisor:

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

Linearity:

- > 0.995 for all compounds

Communication:

- MODBUS protocol included in standard

Gas supply:

- Carrier: Dry air or N2 (3 bar): < 4 ml/min
- Use N_2 if THT is present
- Internal calibration: 50 ml/min for ppm range
- Sample inlet 1 bar
- Pneumatic valve 90 ml/commutation

Power supply:

- Main: 230 V / 115 V or 50/60 Hz

Electrical consumption:

- Average: 150 VA

Dimensions and weight:

• Rack: 19" (5U)	• Exd version
• Height: 222 mm	• Height: 1900 mm
• Width: 482 mm	• Width: 800 mm
• Depth: 660 mm	• Depth: 600 mm
• Net Weight: 22 Kg	• Net weight: 105 kg

[1] MM / EM / IPM / TBM / NPM / MES and Sum of BM,NBM and THT
[2] MM / EM / IPM / TBM / NPM / MES / 2 BM / IBM / NBM / THT

CLICK HERE FOR ADDITIONAL DIMENSIONS DETAILS

To order:	Model:
energyMEDOR® ppm / inbuilt computer	M41022
energyMEDOR® ppb with CALIB / inbuilt computer	M42022
energyMEDOR Exp Atex zone 2	M41022-ATEX-Z2
energyMEDOR Exp Atex zone 1	M41022-ATEX-Z1
energyMEDOR® Exd Atex zone1	M41022-ATEX-Z1-Exd

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

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