



TSP M43

GAS ANALYSER GC 866

THT

TBM

DMS

H₂S

Bu-SH

MeSH

TRS

EtSH

MEDOR® Exp

On-line analysis & monitoring of Sulphur compounds in natural gas
Exp Specification Class 1 Div 2, group C&D



Model: M43022

ATEX

MEDOR® Exp applications:

Process Safety:

Odourisation monitoring – Mercaptans / THT
Gas quality analysis – H₂S / Sulphides

Process Quality:

Deodorisation monitoring – ppb analysis of reduced sulphur
Catalyst protection – ppb analysis of sulphur removal processes
Propellant gases – Propane / Propylene / Ethylene

ASTM D7493-08



*Chromatotec® is specialised in VOC, Sulfur and permanent gases analysis at trace and ultra trace levels (ppm, ppb, ppt).
Please visit our website for more details.*

Updated: July 2013

MEDOR® Exp

On-line analysis & monitoring of Sulphur compounds in natural gas
Ex Specification Class 1 Div 2, group C&D



Description:

The MEDOR® Exp is an **automatic and isothermal gas chromatograph** dedicated to sulfur compound analysis (H_2S , mercaptans and sulphides) in different matrices.

Two versions exist:

- the MEDOR® Exp ppm which measures at ppm levels
- the MEDOR® Exp ppb which measures at ppb levels.

Principle:

- Hazardous area Ex enclosure
- Internal temperature and pressure monitoring
- Loop injection by automatic valve
- Detection is made by a gas-liquid reaction
- Sulfur specific detector – no interferences
- The detector life is in excess of 10 years

Features:

- ASTM D7493-08 : Standard Test Method for Online Measurement of Sulfur Compounds in Natural Gas and gaseous Fuels
- Fully automatic, continuous online analyzer in an Ex enclosure
- Integrated industrial computer
- Storage of date & time stamped chromatograms

VISTACHROM® software

Chromatotec® developed software system enables:

- Remote monitoring & injection control
- Full traceability with on board archiving of results
- QC Set up and control of threshold alarms
- Export of data MODBUS / MGS1 / 4-20mA / 0-10V

Options:

- MODBUS or MSG1 communication protocol
- Analog 4-20mA or 0-10V output
- Ethernet
- Automatic calibration using internal permeation tube (Standard with MEDOR® Exp ppb model).
- Calculations (average) and alarms module
- Vortex air conditioning

Reduced sulphur compounds analysis:

- Speciation or total sulphur.

Detection limits:

- **MEDOR® Exp ppm:**
 - H_2S : 0,1 ppm (0,1417 mg/m³)
- **MEDOR® Exp ppb:**
 - H_2S : 5 ppb (7,0 µg/m³)
 - DMS: 2 ppb (5,1 µg/m³)

Range:

- 0/10 or 0/100 or 0/1000 ppm
- ppb range on request

Relative Standard Deviation:

- RSD < 3% on concentration over 48H.
- RSD < 0.6% on retention time over 48H.

Data Management:

- Hard drive storage of date & time stamped chromatograms
- MODBUS communication protocol (optional)
- 4-20mA (optional)

Cycle Time:

- | | |
|----------------------------|--------------------|
| • H_2S /MeSH | 90s |
| • THT | 180s (if only THT) |
| • H_2S , mercaptans | 300s |
| • Total reduced sulphur | 120s |
| • H_2S , mercaptans, THT | 1200s |

Gas supply:

- Carrier: Dry air or N_2 (3 bars): 12 ml/min
 - (N_2 at 20 ml/min. if only THT)
 - Use N_2 if THT is present
- Z-purge: air 53 l/min
- CALIB: air or N_2 50 ml/min
- Sample inlet 1 bar

Power supply:

- Main: 230V / 115V or 50/60 Hz
- Mean: 150 VA
- Battery 24V (optional)

Dimensions and Weight:

- Height: 800 mm
- Width: 600 mm
- Depth: 300 mm
- Net weight: 40 kg

For ordering:

MEDOR® Exp ppm:
MEDOR® Exp ppb:

Model:

M43022X ppm
M43022X ppb

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