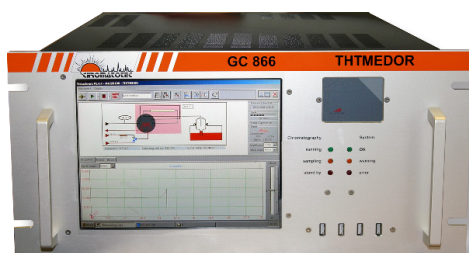


# THT MEDOR®

Online analysis & control of gas odourisation

**TBM**


**Model: M31022**



**Model: M31022-ATEX-Z1**

## THT MEDOR® applications:

### Odourisation processes:

- Continuous monitoring of THT levels in natural gas
- Automatic THT injection level control
- User definable alarm thresholds
- Multiple stream analysis (Upstream / downstream)

SCAN or CLICK ME



### Deodorisation processes:

- ppb level analysis (Detection limit: 5 ppb THT)
- Automatic alarm generation
- Catalyser protection



### Standard:

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

### Certifications:

GOST, ATEX, IECEx, CSA, CSA international



*ASTM D7493-22: Standard Test Method for Online Measurement of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatograph and Electrochemical Detection*



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: April 2025

**THT**

## Description:

- THT MEDOR® is an autoGC-ED (MEDOR® Electrochemical wet cell Detector) for the analysis and monitoring of THT and TBM in natural gas and gaseous fuels.

## Principle:

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

## KeyPoints:

- Fully compliant with ASTM D 7493-22 : Standard Test Method for Online Measurement of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatograph and Electrochemical Detection.
- Automatic calibration/validation of the data, with embeded permeation tube
- 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 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 : full chromatogram
  - No cylinders required thanks to internal calibration tube and gas generators
- Automatic control with process device
- Intelligents system with tunable and interactive alarm levels
- Powerful 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

## Options:

- Multiple stream selector (up to 32 streams with one analyser)
- Explosion proof version Exp or Exd for ATEX, IECEx zone 1 and 2 group IIC T4 and also for CSA C1D2 group B , C & D T4
- Calculation modules (Average / Statistics / Odor index and more)
- Automatic data transfert through: Module for 4 outputs 4-20 mA (with 0 mA for instrument default) / 0 - 10 V / MODBUS RTU or TCPI IP or MGS1
- Nitrogen or air generator for safe and hasardous area
- 24 V DC power supply
- Electric selection valve to reduce air consumption
- Liquid injection valve from LPG up to condensates
- High concentration injection valve up to 5%
- Wall mounted box XXX934
- Liquid injection valve for LPG analysis
- Touch screen on the front panel for Exp version (only ATEX)
- External cylinder inlet for automatic calibration from external cylinder
- MFC for multipoint calibration from internal CALIB and/or from cylinder
- Zero method
- Automatic tank filling
- Sealproof detector

## Product technical specifications:

### Compounds Analysed:

- THT – TetraHydroThiophene and TBM Ter Buthyl Mercaptan

### Detection Limit:

- ppm Model – 1 mg/m<sup>3</sup>
- ppb Model – 0.3 mg/m<sup>3</sup>

### Detection Range:

- ppm model - 1 to 50 mg/m<sup>3</sup>
- ppb model - 0.3 to 3.0mg/ m<sup>3</sup>  
(Ranges adjustable depending on Application)

### Relative Standard Deviation:

- RSD < 2 % on concentration over 48H
- RSD < 0.6% on retention time over 48H

### Cycle Time:

- THT and TBM 180s (for one stream)
- THT and TBM 240s to 300s (for multi stream)

### Supervisor:

- Embeded computer Windows® based with LCD display
- 128 GB of Hardware storage on SSD memory

### Linearity:

- > 0.995 for all compounds

### Communication:

- MODBUS RTU included in standard
- Ethernet, remote control

### Gas supply:

- Carrier Gas: N<sub>2</sub> (3 bars): 10 ml/min
- Internal calibration: 50 ml/min (if selected)
- Sample inlet 1 bar (160 ml/min)
- Pneumatic valve 90 ml/commutation

### Power supply:

- Main: 230V / 60Hz or 115V / 50Hz
- In case of power loss, the instrumnet will restart automatically

### Electrical consumption:

- Mean: 150 VA

### Dimensions and weight:

- |                    |                    |
|--------------------|--------------------|
| • Rack: 19" - (5U) | Exp version:       |
| • Height: 222mm    | • Height: 800mm    |
| • Width: 482mm     | • Width: 600mm     |
| • Depth: 600mm     | • Depth: 320mm     |
| • Net weight: 22Kg | • Net weight: 40Kg |

[CLICK HERE FOR ADDITIONAL DIMENSIONS DETAILS](#)

### To order:

THT MEDOR®  
inbuilt computer - 5U  
THT MEDOR Exp ATEX Z2  
THT MEDOR Exp ATEX/IECEx  
THT MEDOR Exd ATEX Z1  
THT MEDOR Exd IECEx Z1

### Model:

M31022  
  
M31022-ATEX-Z2  
M31022-ATEX-Z1  
M31022-ATEX-Z1-Exd  
M31022-IECEx-Z1-Exd

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

To contact us: [sales@chromatotec.com](mailto:sales@chromatotec.com)

#### NORTH AMERICA

Houston - USA

#### EUROPE

Bordeaux- FRANCE

#### ASIA

Beijing - CHINA