

ONLINE GAS ANALYZER EXPERTS

GAS ANALYZER GC 866

**TRSMEDOR®**

ppm (M51) or ppb (M52)

Online analysis and monitoring of odorous sulfur compounds



Model: M52022 (rack version)



Model: M52022 (wall mounted version)

On-line applications:

- Fence line
- Fermentation process
- Deodorization process
- Fugitive emission

Targeted compounds:

Standard version: H<sub>2</sub>S / SO<sub>2</sub> / MM / EM / DMS / DMDS / DES  
 Upon request: IPM / TBM / NPM / MES / 2BM / IBM / NBM / THT

Main markets:

- WWTP / Refineries / Petrochemicals / Gas process sites
- Ambiant / Industrial air monitoring
- Odor impact management
- TRS measurement

Standards:

ISO 19739:2004, DIN 51855/7  
 ASTM D 7493-08

Certifications:

GOST, ATEX, IECEx, CSA, CSA international



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

H<sub>2</sub>S

SO<sub>2</sub>

Total  
Reduced  
Sulfur

Odor  
Index

DMS

DMDS

Me-SH

Et-SH

### Description:

The TRSMEDOR® is an autoGC-ED (MEDOR® Electrochemical wet cell Detector) for the analysis and monitoring of sulfur compounds in air: H<sub>2</sub>S, Mercaptans, Sulfides.

Two versions exist according to levels of concentration expected:

- The TRSMEDOR® ppm
- The TRSMEDOR® ppb

### Principle:

- Automatic sampling using a loop linked to sampling pump
- 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 reaction between the wet cell electrolyte and the sulfur compounds

### Key points:

- Automatic calibration/validation of the data, with embedded 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
  - No cylinders required thanks to internal calibration tube and gas generators
- Automatic control with process device
- Intelligent 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 16 streams with one analyzer)
- Modeling software with weather station for live odor/chemical impact
- Explosion proof version Exp or Exd for ATEX, IECEx zone 1 and 2 and also for CSA C1D2
- Calculation modules (Average / Statistics / Odor unit OU e/m<sup>3</sup> and more)
- Automatic data transfer through: Module for 4 outputs 4-20mA / Modbus RTU or TCP IP / MGS1
- **Nitrogen** or air generator
- 24 V DC power supply
- Electric selection valve to reduce air consumption
- Wall mounted box XXX934

### Technical Specifications:

#### Reduced sulfur compounds analysis:

- Speciation and Total Reduced Sulfur by sum (TRS): H<sub>2</sub>S, SO<sub>2</sub>, DMS, MM, DES, DMDS, EM compounds

#### Detection limits\* for H<sub>2</sub>S, SO<sub>2</sub>, DMS, MM, EM:

TRSMEDOR® ppm LDL ≤ 0.1 ppm

TRSMEDOR® ppb ≤ 1 ppb

\*more sensitive analyzers available upon request with special application

#### Range (adjustable depending on application):

- 0/10 or 0/100 or 0/1000 (ppb or ppm)
- Calculation: Odor Index, Total Sulfur, Total mercaptans

#### Relative Standard Deviation:

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

#### Cycle Time for the following different analyses:

- **H<sub>2</sub>S, SO<sub>2</sub>, MM, EM, DMS, DMDS, DES** **600s**
- With special application following compounds can be added: IPM, TBM, NPM, 2BM, IBM, NBM, MES, THT and THT **1200s**

#### Supervisor:

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

#### Linearity:

- > 0.995 for all compounds

#### Communication:

- Ethernet, remote control

#### Gas supply:

- Carrier: Dry air or N<sub>2</sub> (3 bars): ≤ 4 ml / min.
- CALIB: in continuous ~ 50 ml / min.
- CALIB during validation ~ 250ml/min for M52 configuration
- Pneumatic valve 90ml/commutation

#### Power supply:

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

#### Electrical consumption:

- 150 VA

#### Dimensions and weights:

- |                     |                     |
|---------------------|---------------------|
| Rack: 19" (5U)      | Wall mounted box:   |
| • Height: 222 mm    | • Height: 800 mm    |
| • Width: 482mm      | • Width: 600mm      |
| • Depth: 660 mm     | • Depth: 300 mm     |
| • Net weight: 22 Kg | • Net weight: 40 Kg |

#### To order:

TRSMEDOR® ppb inbuilt computer 5U with CALIB  
TRSMEDOR® ppm inbuilt computer 5U with CALIB

#### Model:

M52022  
M51022

*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