

# TRSMEDOR®

ppm (M51) or ppb (M52)

Online analysis and monitoring of odorous sulfur compounds



Model: M52022

On-line applications:

Fence line  
Fermentation process  
Deodorisation process  
Fugitive emission

Targetted compounds:

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

Main markets:

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

Standards:

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

Certification:

GOST

**DASTEC** S.R.L.

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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.

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 industrial gas chromatograph 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
- Loop injection by automatic valve on the column
- Isothermal gas chromatograph
- Detection of all compounds eluting from the column performed by Chromatotec's wet cell sulfur specific detector
- Signal provided by electrochemical 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 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, 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 analyser)
- Modeling software with weather station for live odor/chemical impact
- Explosion proof Exp box
  - ATEX Zone 2: Ex II 3G Ex pz IIC T4
  - CSA international Class 1 Div 2, group B,C & D
- Calculation modules (Average / Statistics / Odor index and more)
- Automatic data transfert through: Module for 4 outputs 4-20mA / Modbus / MGS1
- Nitrogen or air generator
- 24 V DC power supply
- Electric selection valve to reduce air consumption

## Technical Specifications:

### Reduced sulfur compounds analysis:

- Speciation and/or Total Reduced Sulfur: sum (TRS)

### 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 TRS, mgS/m<sup>3</sup> ...

### 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/TS   | 120s  |
| • H <sub>2</sub> S, SO <sub>2</sub> , MM, EM, DMS, DMDS, DES, IPM   | 600s  |
| • H <sub>2</sub> S, SO <sub>2</sub> , MM, EM, DMS, DMDS, DES, IPM<br>TBM, NPM, 2BM, IBM, NBM, MES and THT | 1200s |

### Supervisor:

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

### 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

### Electrical consumption:

- 150 VA

### Dimensions and weights

- Rack: 19" (5U)
- Height: 222 mm
- Width: 482mm
- Depth: 660 mm
- Net weight: 22 Kg

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### 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



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