

Sulfides

CS<sub>2</sub>H<sub>2</sub>S\*

Mercaptans

Total  
Mercaptans

\*with loop option

# airmo S

Online monitoring of  
Sulfur compounds by auto GC/FPD  
Sulfur Specific Detector (from ppt to ppb)



Model: C52022-Trap (5U)

## Targetted compounds:

Standard Version: CS<sub>2</sub>  
Mercaptans (Methyl-SH / Ethyl-SH...)  
Sulfides (DMS / DMDS / DES...)

Upon Request: Isopropyl-SH / Terbutyl -SH

## Main Markets:

Ambient Air Monitoring  
Waste Water Treatment Plant  
Gas odorisation & deodorisation  
Impurities in Pure Gas (CO<sub>2</sub>, CH<sub>4</sub>...)

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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.

## Description:

airmo S is a fully automatic isothermal gas Chromatograph for the analysis & monitoring of sulfur compounds with Sulfur Specific Detector. This solution is specific for application where low sensitivity on sulfurs must be reached. This auto GC uses a valve with 1 sample trap, and metallic capillary columns.

## Principle:

- Trap temperature at +5° C and loop in option
- All the pneumatic tubes are inert to Sulphur compounds
- High efficiency dryer for sample water removal
- Continuous sampling
- Sample is injected into column oven for separation
- Controlled oven selects optimum temperature based on application
- Detection achieved by a sulfur specific **dual flame photometric detector (FPD)**
- Calibration with internal permeation tube

## Features:

The double flame ensures no quenching occurs

- Automatic linearization of compounds
- Identification of compounds is based on their retention time (Elution from the column)
- Automatic data validation as standard with internal permeation tube (DMS)

## VISTACHROM® software:

The software developed by Chromatotec® allows:

- Remote monitoring
- Full traceability through archiving of results and QC
- Set up and control of threshold alarms
- Export of data MODBUS / MGS1 / 4-20mA / 0-10V
- Windows 10

## Options:

- Automatic data transfer through:
  - Modbus or MSG1 communication protocol
  - Analog 4-20mA or 0-10V output
- Hydrogen Generator
- Zero Air Generator
- Multiple stream analysis with Multiplexer
- Dilution system
- Heated lines
- **N2 Generator**
- **Dual mode chromaS/airmoS**

## Product technical specifications:

### Compounds analysed:

Specific sulfur compounds analysis with trap (and loop in option):  
Me-SH, Et-SH, DMS, DES, DMDS, CS2 ...  
Options: n-propyl-SH, 2-butyl-SH, Isopropyl-SH, Terbutyl-SH  
Only with loop in option: H<sub>2</sub>S, SO<sub>2</sub>, COS

### Detection limits with trap:

- 0,1 ppb double Sulfur Compounds like DMDS, CS2 etc...
- 0,2 ppb single Sulfur Compounds (MM, DMS etc..)

### Detection limits with loop in option:

with loop = 250 µl and amplification 2

- 14 ppb for H<sub>2</sub>S/SO<sub>2</sub>/ MM/EM/DMS/DES/COS
- 8 ppb for DMDS & CS2

### Detection range with trap (selectable ppm / ppb)

- 0,2 to 10 ppb (amplification 2)
- 1 to 40 ppb (amplification 1)

### Detection range with loop in option (selectable ppm / ppb)

ppm or ppb : amplification 1&2

- 0,01 to 10 mg/m<sup>3</sup> or 0 to 600 mg/m<sup>3</sup>
- % / ppm / ppb level depends on compounds  
for ex H<sub>2</sub>S = 0,01 to 10 mg/m<sup>3</sup> = 7 ppb to 7 ppm

### Relative Standard Deviation:

- RSD < 5% on concentration over 24hrs
- RSD < 1% on Retention Time over 24hrs

### Supervisor:

- Full result storage (data and chromatogram)
- Embedded computer Windows® based with LCD display
- 128 GB of Hardware storage on SSD memory
- 4 USB Connecting Port
- Two RS-232 ports
- Display: 10" TFT Color LCD

### Cycle Times:

- 10 min in airmoS mode or chromaS mode
- 30 min in dual mode (option): 10 min chromaS + 20 min airmoS

### Gas Supply:

- Carrier Gas - N<sub>2</sub> recommended / Air possible 3 bar (5ml/min) 1/8"
- Sample Inlet -1 Bar or ambient pressure (airmopump)
- Sampling dryer: 150-200 ml/min of dry air
- Detector - H<sub>2</sub> at 2 Bar (70 ml/min) 1/8"  
- Air at 3 bar (80 ml/min) 1/8"
- Pneumatic valve 90ml/commutation

### Operation Temperature:

- Room with air conditioning: 10 to 25°C

### Power Supply:

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

### Electrical consumption:

- 250W (+50W for computer)

### Dimensions and Weight:

- Rack: 482 mm (19")
- Height: 177,8 mm (4U) or 222 mm (5U)
- Depth: 660mm
- Weight: 22 kg (With integrated computer)

[CLICK HERE FOR ADDITIONAL DIMENSIONS DETAILS](#)

### To order:

airmo S (4U)  
airmo S (5U)

### Model:

C52000-Trap  
C52022-Trap

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

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