

Sulfides

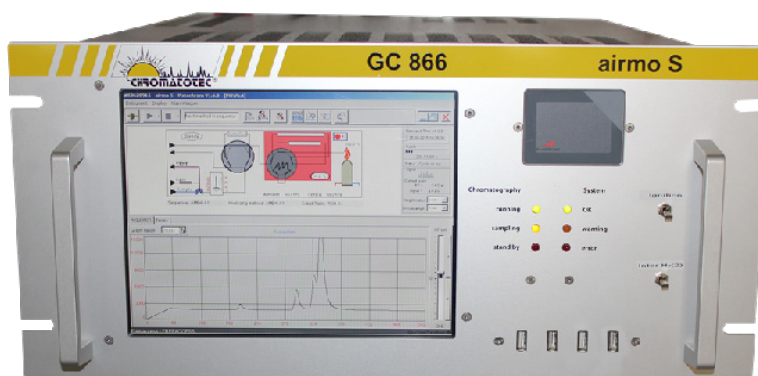
CS₂H₂S*

Mercaptans

Total
Mercaptans

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: CS₂
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 (CO₂, CH₄...)



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.

*with loop option

Updated: August 2021

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: H₂S, SO₂, 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 H₂S/SO₂/ 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/m³ or 0 to 600 mg/m³
- % / ppm / ppb level depends on compounds
for ex H₂S = 0,01 to 10 mg/m³ = 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 - N₂ 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 - H₂ 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)

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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