

# Chroma S - COS

A specific sulphur compounds analyser



Model: C51000-COS

H2S / COS / SO2 / MM / EM / DMS / DMDS / DES / CS2  
All mercaptan species  
All sulphide species

### Chroma S-COS applications:

#### Process Quality:

Odorant analysis & monitoring  
DeSulfurisation / Deodorisation processes  
Catalyser protection  
Sulphur in Natural Gas  
Sulphur in Pure CO2

#### Air monitoring:

Emission analysis & monitoring  
Indoor & Outdoor analysis  
Transportable field based analysis

#### Standard:

ASTM D7165-22



SCAN or CLICK ME



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.

Updated: March 2024

SO2

CS2

H2S

COS

TOTAL Reduced Sulfur (TRS)

RSH

# Chroma S-COS

A specific sulphur compounds analyser



## Description:

Chroma S-COS is a fully automatic isothermal gas Chromatograph for the analysis & monitoring of sulphur compounds.

## Principle:

The gas sample comes through the sampling loop. Range is linked to the size loop and electronic amplification. Then the sample is injected into the column for separation. A controlled temperature oven allows selection the ideal temperature according to the application. The temperature setting is isothermal at 35°C.

## Features:

Detection is achieved by a photometric detector double flame.  
No quenching with the double flame  
We have linearization by compounds  
The identification of the compounds is based on their Retention Time = RT = elution from the column  
Automatic data validation with internal calibration using a DMS permeation tube.

## VISTACHROM® software:

Sequence with methods for: sample(s) / zero air / CALIB  
The VISTACHROM software enables the user to visualize and store data on a computer. Computer = XXX015 or 022 is needed  
It provide comfortable utilities to recalculate, calibrate and export data and to set-up measurement. Software allows the calculation of retention time, area, mass or concentration profiles/TREND.

## Options:

- A MODBUS / communication protocol
- One module 4x analog output 4-20 mA or 0-10 V
- Hydrogen and Zero Air Generator
- Multiple stream selector (2 to 10)
- Nitrogen generator XXX912
- Dilution system
- Heated line
- Valve to control cylinder

## Product technical specifications:

### Total Sulphur compounds analysis:

- H<sub>2</sub>S, mercaptans, sulfides, COS, SO<sub>2</sub>, CS<sub>2</sub>
- CS<sub>2</sub> is not analysed by the Medor range
- Speciation and/or TOTAL Sulfur analysis

### Detection limits (\*performance guaranteed with Chromatotec generators)

#### 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 & CS<sub>2</sub>

### Detection range:

#### 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 24 hrs
- RSD < 1% on Retention Time over 24 hrs

### Results:

- Hardware storage in XX022 or XXX015
- MODBUS communication protocol (optional)
- 4-20mA one module for 4 outputs (optional)

### Data Management:

- Full storage of chromatograms & results
- All analyses date & time stamped individually

### Cycle Times:

- 10 mins in standard

### Gas Supply: input 1/8" Swagelok

- Sample inlet: for 80 ml / min and 1 atmosphere (20°C)
- Cylinder Calibration inlet at 80 ml/min
- H<sub>2</sub> at 2 bars for 70 ml/min
- Air for detector at 3 bars for 80 ml/min
- Air for carrier gas at 3 bars for 5 ml/min
- For calib, air at 50 ml/min in continue and during calibration one cycle by day at 300 ml/min
- Pneumatic valve 90 mL/ commutation

### Power Supply:

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

### Electrical consumption:

- Average: 100 VA
- Peak: 200 VA

### Dimensions and weight:

- Rack: 19" - (5U)
- Height: 220mm
- Width: 482mm
- Depth: 600 mm
- Net weight: 17 kg

### To order:

Chroma S-COS 4U  
Needs a 5U supervisor (ref. XXX015)  
Chroma S-COS 5U


### Model:

C51000-COS  
C51022-COS

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



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