

# airmoVOC C10-C40

Analysis for light S VOCs and heavy S VOCs from C10 to C40



Model: A22022

## Environment:

Urban/Non urban area pollution control  
Outdoor/Indoor measurements  
BTEX / PAMS / CE analysis  
Plant / process emissions  
Tropical forest

## Process:

Industrial Hygiene  
Fenceline monitoring

## Other applications:

Wastewater plant, Headspace or Purge and trap (method 502-2 or 524), Ambient air control (PAMS and TO14)  
Contaminants extracted from solid such as plastic like PET,  
Oil, industrial, emission etc.

SCAN or CLICK ME



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.



Benzo(a)pyrene  
Naphthalene  
Styrene  
BTEX  
CCL4  
Tri-methylbenzene  
N-Eicosane  
FLUORENE  
Gaseous PAHs

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## Description:

Alkanes validate up to C25 and possibly up to C40 (with a boiling point of C40 around 522 °C). \*Already analyzed

PAHs up to C22: Benzo ghi perylene (with a boiling point 550 °C). \*Already analyzed

The airmoVOC C10-C40 is a gas chromatograph for analysis and monitoring of trace and ultra trace amounts of light S VOCs and heavy S VOCs like linear alkanes up to N-Pentacosane or gaseous PAHs from Naphthalene to Benzo(a) pyrene in standard with FID detector.

Miniaturization, sensitivity, mobility and flexibility are its main features.

Everything from the sample port up to the data storage is integrated in a 19"-rack 5U:

- Uninterrupted sampling with pre-concentration on 1 absorbent tube
- Gas chromatograph with 0.2 mm ID metallic capillary column and programmable temperature gradient oven and pressure / flowcontrol of the carrier gas by piezo-valve

## Principle:

- MFC for sampling controlled by Vistachrom to adapt sampling flow from the software
- Heated injection valve
- Automatic sampling with inbuilt heated line and concentration using an absorbent trap
- Thermo desorption from the trap and direct injection into a metallic capillary column regulated by a temperature gradient up to 350°C. The H<sub>2</sub> pressure (carrier gas) at the column head is controlled by a piezo valve.
- The detection of all compounds eluting from the column is performed by a FID detector.

## Key points:

- Heated sampling line up to heated valve in the GC
- The following gaseous PAHs can be analyzed: Naphthalene (C10), Me-Naphtalene, 1-Me-Naphtalene, Acenaphtene, Acenaphtylene, Flourene, Phenanthrene, Anthracene, Fluoranthene, Pyrene (C16), and Benzo(a) pyrene (C20)
- Linear alkanes from C10 DimethylButane to C40 N-Eicosane
- No condensation part for C10 to C40

## 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 / 4-20mA / 0-10V

The software allows the calculation of retention time, area, mass or concentration profiles.

## Options:

- Det QMS for online GC MS monitoring
- MODBUS / JBUS or MGS1 communication protocol
- Analog output 4-20mA or 0-10V or alarms
- 24 V power supply
- Hydrogen and zero air generator for transportable analysers
- Multiplexer: up to 32 streams
- Purge module to extract VOC from water for online VOC in water analysis
- External multipoint calibration and zero with CALIB MFC, XXXCYL MFC, airmoCAL 200 MFC
- MS can be used to detect and quantify individual coeluted chemicals from C6 to C10, as GC speciation is not as effective in these ranges.

## Product technical specifications:

### C10 to C40 analysis:

- C10 (Hexane, Dimethylbutane) to C40 (Benzo(a)pyrene and N-Eicosane)

### Detection limit:

- Benzene: 5 ppt or 0.0164 µg/m<sup>3</sup>
- Naphthalene: 10 ppt or 0.05 µg/m<sup>3</sup>

### Detection range:

- Benzene: 0.1 to 380 µg/m<sup>3</sup>
- Naphthalene: 0.05 to 400 µg/m<sup>3</sup>

### Relative Standard Deviation:

- < 0.3 % over 48h (RT)
- < 3 % over 48 h (Conc.)

### Base Line: Zero drift:

- < 2%

### Linearity:

- R<sup>2</sup> > 0.99 on all compounds

### 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

### Results:

- Data storage

### Cycle time:

- 30 min to 60 min (depending on application)
- 90 min to 120 min (in option)

### Gas supply:

- H<sub>2</sub> (FID and carrier gas): 45 mL/min (inlet 4 bars; 1/16" double ferrule)
- Air (FID): 450 mL/min (inlet 4 bars ; 1/8" double ferrule)
- Sample inlet (vacuum pump) 1/4" double ferrule
- Pneumatic valve 90ml/commutation

### Operation Temperature:

- Room with air conditioning: 20 to 30°C

### Sample volume:

- Up to 2200 mL (programmable)

### Power supply:

- Main: 230 V / 115 V or 50 Hz / 60 Hz
- Battery: 24 V (option)

### Electrical consumption:

- Mean: 300 VA, Peak 460 VA

### Dimensions and weight:

- Rack: 19" - (5U)
- Height: 222 mm
- Width: 482 mm
- Depth: 600 mm
- Net Weight: 22 kg



[CLICK HERE FOR ADDITIONAL DIMENSIONS DETAILS](#)

### To order:

airmoVOC C10-C40  
5U inbuilt computer

### Model:

A10000

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

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