

# **ONLINE ANALYTICAL SOLUTIONS EXPERTS**

GAS ANALYZER GC 866

# airmoVOC WMS

Monitoring of VOC in water - BTEX included Based on EPA\* 502.2 Method

Chlorobenzene

STYRENE

BTEX

TRIMETHYLBENZENE





Model: A25022-502



Model: A25022

# **Water markets**

Finished drinking water
Raw source water
Drinking water
Surface water
Wastewater (head space / ppt)
Rain water

# Air markets in option

Ambient air control
Urban/Non urban area pollution control
Indoor measurements
BTEX/PAMS/CE analysis



# **Process**

Finished water Waste water / effluent



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.

# airmoVOC WMS

Monitoring of VOC in water - BTEX included Based on EPA\* 502.2 Method



# **Principle:**

The airmoVOC WMS uses a valve with a sample trap.

It also features a metallic capillary column.

- Miniaturization, sensitivity, mobility and flexibility are its main features.
- Everything from the sample port up to the data storage is integrated in a wall mounted box.
- Uninterrupted sampling with pre-concentration on absorbent tube
- Gas chromatograph with metallic column with programmable temperature gradient oven.

Pressure control of the carrier gas by piezo-valve.

· One week tested after production for quality control.

Vistachrom software enables the user to visualize and store data on a PC.

Furthermore it provides comfortable utilities to recalculate, calibrate and export data and to set-up measurement.

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

## Purge: for on line analytic instrument

- · Based on EPA 502.2 Method
- 5 ml of water sample as standard or optional 25 ml sparger
- Purge with inert gas: ultra pure N2 (Ultra High Purity) 40 ml/min
- · Sampling time: 11 minutes
- Inlet calibration is easy to perform thanks to a low sample volume required only 5ml of water
- Dead volume < 15 mL (volume between water and trap)
- Bubbles with a diameter < 3 mm at the origin of the frit</li>
- · Automatic rinse

#### **Example of application**

All VOC below can be analysed	N° CAS
1,2-Dichloroethane	107-06-2
Benzene	71-43-2
1,2-Dichloropropane	78-87-5
Trichloroethylene	79-01.6
Toluene	108-88-3
Tetrachloroethylene	127-18-4
Chlorobenzene	108-90-7
Ethylbenzene	100-41-4
* m-Xylene	108-38-3
* p-Xylene	106-42-3
Styrene	100-42-5

All VOC below can be analysed	N° CAS	
o-Xylene	95-47-6	
Isopropylbenzene	98-82-2	
1,3,5-Trimethylbenzene	108-67-8	
1,2,4-Trimethylbenzene	95-63-6	
1,3-Dichlorobenzene	541-73-1	
1,4-Dichlorobenzene	106-46-7	
1,2-Dichlorobenzene	95-50-1	
1,2,4-Trichlorobenzene	120-82-1	
1,2,3-Trichlorobenzene	87-61-6	
Hexachloro-1,3-butadiene	87-68-3	
*SUM of M+P Xylene		

## **Options:**

- · DET QMS for online GCMS
- airmoVOC BTEX expert 1 ppt LDL
- · Automatic validation and calibration with internal CALIB
- 24 V DC power supply
- Integrated hydrogen and zero air generators for autonomous analysers
- Multiplexer: 2 to 32 streams
- · 1 stream for water and 1 stream for air
- Internal or external multipoint calibration and zero with CALIB MFC, XXXCYL MFC, airmoCAL PAH
- · airmoVOC C6C16 for more VOCs and S VOCs
- Analog output 4-20 mA or 0-10 V

# Product technical specifications:

## Analysis by airmoVOC:

#### 3 main solutions:

Up to 60 compounds with:

- 60 compounds : our Purge & Trap 2 GC FID50 compounds : our Purge & Trap 1 GC FID
- 50 compounds : our Purge & Trap 1 GC PID
- · BTEX and chlorine compounds

### **Detection limit:**

< 0.001 µg/I for BTEX</li>

# **Detection range:**

- 0.05 to 20 µg/l for surface water and finished drinking water
- 0 to 50 000 μg/l for liquid and other liquid on demand

## Relative standard deviation (RSD):

- < 0.3% over 48h (Retention Time)</li>
- < 3% over 48h (Concentration)</li>
- < 10% for water analysis (Concentration)

### Base Line: Zero drift:

• < ±3%

### **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
- MODBUS RTU / JBUS communication protocol

# Cycle time:

• 30 min or 60 min

## Gas supply:

- H2 (FID and carrier gas): 30 ml/min (supply 2 bar; 1/16"double ferrule
- Air (FID): 180 ml/min (supply 3 bar; 1/8"double ferrule
- N2 (Purge): 40 ml/min (inlet 3 bars ; 1/8" double ferrule)
- Sample inlet (vacuum pump) ; 1/4 double ferrule
- Pneumatic valve 90ml/commutation

# **Operation Temperature:**

• Room with air conditioning: 10 to 25°c

#### Purge:

- ZERO N2 analysis
- ZERO WATER analysis (Blank)
- Standard water analysis

# Power supply:

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

# Electrical consumption:

Mean: 150 VA, Peak 360 VA

#### Installation in a wall-mounted cabinet:

- · Height: 1440mm
- Width: 600mm
- Depth: 300mm
- Net weight: 80 Kg

#### To order: airmoVOC 624

airmoVOC 624 airmoVOC-WMS

Model: A25022 A25022-50

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

To contact us: sales@chromatotec.com

NORTH AMERICA Houston - USA

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