

# airTOXIC<sup>BTX</sup> PID

a GC/PID for automatic monitoring of BTEX.  
In air, water or soil

Approved and installed by US EPA



Model: A73022



**Certified**  
EN 14662-3  
EN 15267-1  
EN 15267-2

## Environment Monitoring:

BTEX: 5 or 7 compounds  
Non urban areas  
Urban areas  
Fence line refinery  
Indoor air  
Outdoor air

## Process:

Industrial Hygiene  
Fence line

Option Purge & Trap (method 502-2) for water quality surveillance

**Compliant with EN 14662: No interferences with BENZENE**

**Pattern Approval Certificate of the Measuring Instruments of PR China**

Ranges available:  
0.032 - 3250 µg /m<sup>3</sup>  
0 - 1000 ppb



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 2017

BENZENE

TOLUENE

ETHYLBENZENE

XYLENES (O,M,P)

IAA

1,3-BUTADIENE

# airTOXIC<sup>BTX</sup> PID

a GC/PID for automatic monitoring of BTEX  
in air, water or soil



## Principle:

This instrument uses a port valve with a single absorbent trap, and a 30 meter metallic 0.28 mm ID column.

Minimum detection level as low as 10 ppt for Benzene or 1,3-Butadiene (A76022) in ambient air.

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.

Programmed gradient temperature up to 202°C for the column oven and pressure/flow control of the carrier gas .

Linearity on area with  $R^2 > 0.995$

European range:  $0.45$  to  $45 \mu\text{g}/\text{m}^3 = 0.1$  to  $14.5$  ppb.

Before delivery the analyser is tested for one week by our quality control department.

Photo ionisation detector (PID), 10,6 eV lamp.

Self-cleaning of the lamp ensures high stability.

Bi-directional RS-232 C to transfer data and results to the internal computer.

Vistachrom software enables the user to view and store data on an industrial computer. It provides user friendly utilities to recalculate, calibrate and export data and to configure the measurement.

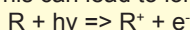
The software allows the calculation of retention time, area, mass or concentration profiles, in any measuring unit.

LCD DISPLAY

Results output: different communication protocols available

## Theory:

Photoionization is initiated by the absorption of short wavelength ultra-violet light by a molecule. This can lead to ionization as follows:



If the ionization potential of R is less than or equal to the energy of the photon,  $h\nu$ , then the species are ionized.

The detector consists of a sealed interchangeable ultraviolet lamp that emits a selected energy line.

Lamps with energies of 8.3, 9.5, 10.6 and 11.7 eV are available. PID is linear.

## Options:

- MODBUS RTU
- CALIB for A74022
- Automatic validation and autocalibration
- Nitrogen generator up to 200 ml/min
- Modem support and remote control
- 4 or 8 analog outputs 4-20 mA or 0-10 V
- 1,3-Butadiene (A76022)

## Product technical specifications:

### BTEX analysis: up to 8 compounds:

Benzene, Toluene, Ethylbenzene, Xylenes: Ortho, meta, para Butadiene (model A76022), cyclohexane, styrene

### Lower detection limit (LDL) in automatic mode:

- $\leq 0.01$  ppb =  $0.0325 \mu\text{g}/\text{m}^3$

### Detection range and linearity: BENZENE

- $3.25$  to  $3250 \mu\text{g}/\text{m}^3 = 0-1000$  ppb
- $0.32$  to  $325 \mu\text{g}/\text{m}^3 = 0-100$  ppb
- $0.032$  to  $32.5 \mu\text{g}/\text{m}^3 = 0-10$  ppb

### Relative standard variation: PRECISION

- Better than 0.3 % over 48h (Retention Time)
- Better than 2 % over 48 h on 1 ppb (Concentration)

### Results on LCD:

- Data storage
- 4 or 8 x 4-20 mA or 0/10 V output in option
- MODBUS RTU / JBUS or Bayern Hessen protocol

### Cycle time:

- 15, 20 or 30 min

### Gas supply:

- Nitrogen: 4 ml/min (inlet 3 bars; 1/8" swagelok)
- Air or nitrogen for CALIB: 50 ml/min continuously and 180 ml/min in CALIB method
- **Detector cleaning: 3 ml/min**
- 15ml/min, Sample inlet (vacuum pump) 1/4"swagelok

### Sample volume:

- 20 to 400 ml or more (programmable)

### Operation Temperature:

- Room with air conditioning: 10 to 35°C

### Computerized Electronic:

- **4 USB Connecting Port**
- Two RS-232 ports
- Display: 10" TFT Color LCD
- Software: Windows XP embeded

### Power supply:

- main: 230V / 50Hz or 115V / 60 Hz
- battery: 24V (option)

### Electrical consumption:

- Average: 150 VA, Peak 360 VA

### Dimensions and weight:

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

### To order:

airTOXIC BTX inbuilt computer /  
Calibration & airmoCOM XXX001 included - 5U

airTOXIC BTX inbuilt computer /  
airmoCOM XXX001 included - 5U

airTOXIC VOC - inbuilt computer - 5U

### Model:

A73022

A74022

A77022

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

To contact us: [info@chromatotec.com](mailto:info@chromatotec.com)



#### NORTH AMERICA

CHROMATOTEC Inc.  
18333 Egret Bay Blvd, Suite 270,  
Houston TX 77058 - USA  
Phone: +1 (281) 335 4944  
Fax: +1 (281) 335 4943

#### EUROPE

AIRMOTEC AG SAS  
15 rue d'Artiguelongue  
33240 Val de Virvée. FRANCE  
Phone: +33 (0) 557 940 626  
Fax: +33 (0) 557 940 620

#### ASIA

CHROMATOTEC Trading (Beijing) Co., Ltd.  
Room 1806, Building 1,  
Wanda Plaza, No.93, Jianguo Avenue,  
Chaoyang District,  
Beijing 100022 - CHINA  
Phone : +86 (0) 105 960 3283