

#### **ANALYSIS EXPERTS** IN GAS

GAS ANALYZER GC 866

## airTOXICBTX PID

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

Approved and installed by US EPA\*



Model: A73022



Representantes / Distribuidores Exclusivos

Buenos Aires, Argentina Tel.: (54 - 11) 5352-2500 Email: info@dastecsrl.com.ar

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## **Environment Monitoring:**

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

## Process:

Industrial Hygiene

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 specialised in VOC, Sulfur and permanent gases analysis at trace and ultra trace levels (ppm, ppb, ppt). Please visit our website for more details.

Updated: September 2013

XYLENES (0) CYCLOHEXANE STYRENE 1,3-BUTADIENE OPTION: A76022

BENZENE

TOLUENE

ETHYLBENZENE

XYLENES (M,P)

Outdoor air

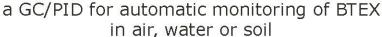
Fence line







# airTOXICBTX PID





#### Principle of the airTOXIC PID:

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 R2 > 0.995

European range: 0.45 to 45  $\mu$ g/m<sup>3</sup> = 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-directionnal RS-232 C to transfer data and results to the internal computer

Vistachrom software enables the user to view and store data on a industrial computer. It provides comfortable 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 ultraviolet light by a molecule. This can lead to ionization as follows:

R + hv => R+ + e-

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

The sensor 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)

#### **Technical specifications:**

#### BTEX analysis: up to 8 compounds:

Benzene Butadiene (model A76022) Toluene Cyclohexane Ethylbenzene Styrene Xylenes: Ortho, meta, para

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

•  $\leq 0.01 \text{ ppb} = 0.0325 \,\mu\text{g/m}$ 

#### Detection range and linearity: BEN

- 3.25 to 3250  $\mu$ g/m<sup>3</sup> = 0-1000 ppb
- 0.32 to 325  $\mu$ g/m<sup>3</sup> = 0-100 ppb
- $0.032 \text{ to } 32.5 \,\mu\text{g/m}^3 = 0.10 \text{ ppb}$

#### Relative standard variation: PRECISION

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

#### Results on LCE

- · 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 or 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:

- · 4xUSB 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 consumptio

Average: 150 VA, Peak 360 VA

## Dimensions and weight:Rack: 19" - (5U)

- · Height: 222 mm
- Width: 482mm
- Depth: 600 mm
- · Net weight: 22 kg



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#### For ordering:

airTOXIC BTX - inbuilt computer / Calibration & airmoCOM

A73022

Model:

• airTOXIC BTX - inbuilt computer / airmoCOM XXX001 included - 5U

A74022

airTOXIC VOC -inbuilt computer - 5U

A77022

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