

BENZENE

TOLUENE

ETHYLBENZENE

XYLENES (M,P)

XYLENES (O)

CYCLOHEXANE

STYRENE

1,3-BUTADIENE
OPTION: A76022

airTOXIC^{BTX} PID

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

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 /m³
- 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.

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a GC/PID for automatic monitoring of BTEX
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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 $R^2 > 0.995$

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

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 a industrial computer. It provides comfortable user friendly utilities to recalculate, calibrate and export data and to configure the measurement.

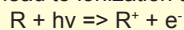
The software allows the calculation of retention time, area, mass or concentration profiles, in any measuring unit.

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:



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 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:

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

Detection range and linearity: BENZENE

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

Relative standard variation: PRECISION

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

Results on 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 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 embedded

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

For ordering:

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

Model:

A73022

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

A74022

• airTOXIC VOC - inbuilt computer - 5U

A77022

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