CONSOLIDATED ANALYTICAL SYSTEMS

BTEX Monitoring

airmoVOC BTX

The airmoVOC BTX analyzer has been developed specifically to address the challenges of online, continuous BTEX monitoring. The airmoVOCs are fully automated, rugged, industrial analyzers that provide an ideal solution for companies and operators seeking to increase data capture and maximize efficiency. This integrated solution provides unsurpassed separation of BTEX compounds and exceptional stability of results, combined with the ease of an automatic platform. The airmoVOCs perform in the most stringent applications with the lowest cost of ownership on the market. Our partners globally have validated the airmoVOC BTX as the most accurate and reliable analyzer in the industry for measurement of BTEX in environmental and industrial monitoring.

The airmoVOC BTX is a robust, automatic gas chromatograph dedicated to the analysis and monitoring of trace amounts of BTEX compounds (Benzene, Toluene, Ethylbenzene, m-, p-, and o-Xylenes), with options for Styrene and 1,3-Butadiene. BTEX analysis is accomplished by concentration in and desorption from an absorbent, single-phase trap then injection into a metallic capillary column regulated by a temperature gradient. The H_2 pressure at the column head is controlled by a piezo valve. Detection of compounds eluted from the column is performed by a FID. BTEX results are validated automatically by an internal permeation standard to ensure repeatability and accuracy.

All airmoVOCs offer an advanced color display, intuitive user interface, flexible I/O, and built-in data acquisition. All instrument set up, control, and access to stored data and diagnostic information are available through the front panel, or via RS232, Ethernet, or USB com ports either locally or by remote connection using the included VISTACHROM® software. High and low threshold alarms for monitoring are user adjustable. Proprietary VISTACHROM® software enables remote monitoring and injection control as well as full traceability with onboard archiving of results.

- **Ranges: 0.1 to 380 µg/m^3 for Benzene; 0 to 50 µg/m^3 for standard ambient air monitoring**
- **Serial com ports**
- **Four front panel USB ports for peripheral devices**
- **Comprehensive internal data logging with 40GB storage**
- **Hard drive storage of date and time stamped chromatograms**
- **Full traceability through archiving of results and QC**
- **Ethernet connectivity for remote access and monitoring**
- **Adjustable threshold alarms**
- **Online, continuous sampling**
- **Low maintenance**
- **Automatic validation of results by Internal Permeation Tube**
- **Large, vivid, and durable color graphics display with user-friendly interface**

TISCH International

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Cincinnati OH 45223
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airmoVOC BTX

BTEX Monitor

Specification Sheet

General Specifications

Compound(s) Analyzed: BTEX analysis
Standard – 5 compounds: Benzene, Toluene, Ethylbenzene, m-, p-, and o-Xylenes
Options for Styrene, Benzene and 1,3-Butadiene

Detection Range(s):
0.1 to 380 µg/m^3 for Benzene; 0 to 50 µg/m^3 for standard ambient air monitoring

Lower Detectable Limit(s):
Benzene: <50 ppt or 0.16 µg/m^3

Relative Standard Deviation:
Concentration: RSD <3% over 48 h
Retention time: RSD <0.3% over 48 h

Cycle time(s):
15 to 30 min
Sample Inlet (vacuum pump)

Sample Volume:
30 to 700 ml (programmable)
FID and Carrier Gas Flow Rate and Pressure (UHP H_2): 30 ml/min; 2 bars

FID Flow Rate and Pressure (Air):
180 ml/min; 3 bars

Electrical Specifications

Power Requirements:
120V/230V, 50/60 Hz

Consumption:
Average 150 VA, Peak 360 VA

Communication Specifications

Included I/O:
MODBUS/JBUS or MGS1 (RTU or ASCII)
RS232
RS485
Ethernet
4 USB com ports

Optional I/O:
4-20mA output
0-10V output

Certifications

EN 14662-3
EN 15267-1
EN 15267-2
TÜV Certificate for BTEX in 1996
CNR Norm

Physical Specifications

Operating Temperature Range:
18 to 25 °C, no more than ±1 °C change per hour

Dimensions (H x W x D):
8.7" x 19" x 23.6" (22.2cm x 48.2cm x 60cm)

Net Weight:
48.5 lbs (22 kg)

Options

Calibration Options:
Automatic validation and calibration
Internal Permeation Tube system (CALIBRATION system)
Multiple stream analysis with Multiplexer (2 to 6 streams)
User definable alarm thresholds

Mounting Options:
Rack mount brackets with chassis slides
Rack mount brackets with stationary shelf
Enclosed instrument rack with HVAC

Other Options:
24V power for transportable analysis
Explosion proof Exp box - Ex Specification Class 1 Div 2, Groups B,C,& D
Maintenance kit
UPS (Uninterrupted Power Supply)
Climate-control
Hydrogen and Zero Air Generators

Applications

Environment:
Monitoring of urban and non-urban pollution
Monitoring of industrial nuisance

Industrial:
Industrial health and safety monitoring
Process quality control

Other applications:
Waste water (headspace/ppt)
Drinking water
Co_2 purity control for carbonated beverages market

Contact Information

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