



## Turn-Key Solutions

Consolidated Analytical Systems (CAS) understands the challenges of adding an Auto-Gas Chromatograph (Auto-GC) to an existing ambient monitoring station. The CAS Turn-Key Solution makes the transition from canister sampling to an Auto-GC as seamless as possible.

### CAS Turn-Key Solution

The AirmOzone Auto-GC has been developed specifically to address the challenges of continuous online monitoring in the growing Photochemical Assessment Monitoring Stations (PAMS) network. The AirmOzone can be integrated into any existing Ambient Monitoring Station, and MODBUS output allows for communication with your current Data Acquisition System (DAS).

The AirmOzone is a rack-mounted, automated, and durable field deployable system that provides an ideal solution for network operators being tasked with continuous measurement of VOCs. This integrated solution provides unsurpassed separation of VOCs and exceptional stability and accuracy of results. The AirmOzone requires minimal maintenance and offers the lowest cost of ownership on the market. The Flame Ionization Detector (FID) allows for no interference from competing compounds.

Some of the additional features of the AirmOzone include advanced color display, intuitive user interface, flexible I/O, and built-in data acquisition. Instrument set up, control, access to stored data, and diagnostic information is available through the front panel display, or via RS232, Ethernet, or USB com ports. VISTACHROM® software (included) provides local connectivity. High and low threshold alarms for monitoring are user configurable. The proprietary VISTACHROM® software also enables remote monitoring and injection control as well as full traceability with onboard archiving of results.

- **Designed specifically for integration into existing AQMS**
- **No compressed gas cylinders required**
- **Turn-key solution from sample inlet to exhaust**
- **Constructed with site operator in mind**
- **24/7 national technical support**
- **Ethernet connectivity for remote access and monitoring**
- **Support gases generated on site**
- **Online, continuous sampling**
- **Minimal maintenance**
- **Automatic validation of results by internal permeation tube system**
- **Large, vivid, and durable color graphics display with user-friendly interface**



CONSOLIDATED ANALYTICAL SYSTEMS

# PAMS Auto-GC

## C2-C6

### Compound(s) Analyzed:

Light VOC analysis: C<sub>2</sub> to C<sub>6</sub>, i.e. from Ethane through 1,3-Butadiene up to Benzene (and other C compounds)

### Detection Range(s):

0.033 to 500 µg/m of 1,3-Butadiene

### Lower Detectable Limit(s):

15 ppt (33 ng/m) for 1,3-Butadiene

### Relative Standard Deviation:

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

### Cycle time(s):

60 min

### Sample Inlet (vacuum pump)

### Sample Volume:

20 to 240 ml (programmable)  
FID and Carrier Gas Flow Rate and Pressure (UHP H<sub>2</sub>): 30 ml/min; 2 bars

### FID Flow Rate and Pressure (Air):

180 ml/min; 3 bars

## C6-C12

### Compound(s) Analyzed:

Up to 32 compounds from C<sub>6</sub> to C<sub>12</sub>  
C<sub>6</sub> (Hexane, Dimethylbutane) to C<sub>10</sub> (Diethylbenzene, Naphthalene) and dodecane  
BTEX  
Halogen compounds (TO-14) or (PAMS)

### Detection Range(s):

0.05 to 400 µg/m for Tri-methylbenzene  
Lower Detectable Limit(s):  
Tri-methylbenzene: 10 ppt or 0.05 µg/m Benzene:  
10 ppt in standard model; 1 ppt with airmoVOC Expert

### Relative Standard Deviation:

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

### Cycle time(s):

60 min

### Sample Inlet (vacuum pump)

### Sample Volume:

30 to 700 ml (programmable)

### FID and Carrier Gas Flow Rate and Pressure (UHP H<sub>2</sub>):

30 ml/min; 2 bars

### FID Flow Rate and Pressure (Air):

180 ml/min; 3 bars

## Physical Specifications

### Operating Temperature Range:

18 to 25 °C, no more than ±1 °C change per hour

### Dimensions (H x W x D):

64" x 24" x 36"

### Net Weight (System):

250 lbs.

## 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

## 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

## Contact Information

### Consolidated Analytical Systems

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