



ChromaS

The ChromaS analyzer has been developed specifically to address the challenges of online, continuous monitoring of specific sulfur compounds. The Chromas 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 compounds and exceptional stability of results, combined with the ease of an automatic platform. The Chromas perform in the most stringent applications with the lowest cost of ownership on the market. Our partners globally have validated the ChromaS as the most accurate and reliable analyzer in the industry for measurement of sulfurs in odor control and monitoring.

The ChromaS is a robust, automatic gas chromatograph dedicated to the analysis and monitoring of specific sulfurs. Miniaturization, sensitivity, mobility, and flexibility are its main features. Sulfur compounds analysis is accomplished through loop injection via automatic valve onto chromatographic columns heated in an isothermal oven. Detection of sulfur compounds eluted from the columns is performed by a sulfur-specific dual flame photometric detector (DFPD). The double flame ensures no quenching occurs. Results are validated automatically by an internal permeation standard to ensure repeatability and accuracy.

All Chromas 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: 0.05 to 400 $\mu\text{g}/\text{m}^3$ for Tri-methylbenzene**
- 🔦 **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**

General Specifications

Compound(s) Analyzed:

Light VOC analysis: C₂ to C₆, i.e. from Ethane through 1,3-Butadiene up to Benzene (and other C₆ compounds)

Detection Range(s):

0.033 to 500 µg/m³ of 1,3-Butadiene

Lower Detectable Limit(s):

15 ppt (33 ng/m³) for 1,3-Butadiene

Relative Standard Deviation:

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

Cycle time(s):

30 min (20 min option)
Sample Inlet (vacuum pump)

Sample Volume:

20 to 240 ml (programmable)
FID and Carrier Gas Flow Rate and Pressure (UHP H₂): 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

Contact Information

Consolidated Analytical Systems

4014 Spring Grove Ave
Cincinnati OH 45223
513-542-1200
sales@cas-en.com

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: 37.5 lbs (17 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:

Urban/Non-urban area pollution control
BTEX/PAMS/CE analysis
Process emissions

Toxicity:

Benzene, 1,3-butadiene
VOC screening of CO₂ quality for the food and beverage industry

Process:

Industrial Hygiene
Fence line monitoring
Acetaldehyde/benzene