



Monitoring Solutions for R&D

VOCs Monitoring

Ozone Precursors (PAMS 56) and Odor Monitoring System - FID

- All-in-one solution for monitoring VOCs and NH₃ in ambient air, which are ozone precursors.
- In-situ VOC analysis by AirmOzone. NH₃ analysis by DET NH₃.
- AirmOzone utilizes 2 analyzers: airmoVOC C₂-C₆ and airmoVOC C₆-C₁₂ (Optional: Higher VOCs).
- The analyzers are based on GC-FID technology and measures light & heavy VOCs respectively.
- Monitors 88 compounds of PAMS and TO 14 molecules (56 compounds of USEPA PAMS list).
- No interferences on 10 compounds which can potentially interfere with benzene (EN 14 662-3).
- Sensitivity is excellent down to ppt levels.
- Fully automated operation and with internal calibration by airmoCAL.
- VISTACHROM software controls analyzers & enables storage / display of chromatograms.
- Applications: For Urban / Non urban area pollution control, Indoor measurements, BTEX/PAMS/CE analysis, Plant/process emissions studies etc.



Portable μ airToxic BTEX Analyzer - PID

- A portable GC/PID for automatic monitoring of BTEX in air, water or soil
- Methods: BTEX, PAMS, TO15, EU Directive.
- Uses a port valve with single absorbent trap, and capillary column.
- Minimum detection level: 10 ppt for Benzene or other VOC (C₆-C₁₂).
- Sensitivity : ppt
- Optional built in calibration.
- Cycle time: 15 / 30 / 60 min.



Portable VOC Gas Detector (ATEX Cert.) - PID

- GC + PID sensor
- Analysis mode: Target compounds are Benzene, Butadiene & 44+ other VOCs
- Seeker mode: Total VOC measurement
- Internal pump. 10 m probe attachable.
- Control unit: large touch screen, Wifi/4G connectivity.
- Benzene Minimum Detection limit: 50ppb.
- ATEX, Zone 0, Zone 1 Approved. IP54. 8h operation. 0.88kg
- For frequent testing of toxic and carcinogenic substances



Handheld VOC Monitors - PID

- Third-generation patented PID technology
- VOC detection range from 0 to 15,000 ppm
- ppb/ppm models ; benzene model too.
- Available with 1 ppb sensitivity / 60s response.
- Correction factors for more than 200 compounds.
- IP 65/67 water-proof and dust-tight.
- Built-in man down alarm.



Acoustic & Thermal Imaging Camera

- Acoustic: 176 digital mics @200 kHz.
- Thermal: Uncooled microbolometer.
- Acoustic freq. range: 2 -100 kHz.
- Thermal spectrum range: 8-14 μ m.
- Applications: Compressed air leak detection, Partial discharge detection, Condition-based monitoring, Non-destructive testing.



Portable TOC / THC & NMHC Analyzer - FID

- Analyze THC & NMHC at the same time.
- Adopts catalytic oxidation + double FIDs.
- Range: 0~10/100/1000/10000mg/m³.
- Highly integrated design, total wt <12KG.
- High test efficiency. Low pre-heating time.
- With detachable touch screen & Wi-Fi.
- H₂ is supplied by mini built-in metal hydride cylinder



VOC Mapper/Inspector

- Principle: TDLAS and high-res OGI camera.
- Swiftly visualize and locate leaks of methane, organic gases & VOCs. Detects 20 gases.
- Applications: Flammable and toxic gas leak detection, Latent fault detection, Petrochemical, Industrial vision systems, Aerial radiometric imaging, UAV integration.
- Laser ranging, Wi-Fi, Bluetooth, GPS & ATEX.



Multigas Ambient FTIR Analyzer - GT5000 Terra

- 5000 detectable gases (Reference library).
- 500 measurable gases with high accuracy.
- 50 gases simultaneously measured.
- 5-second / Real-time results
- Portable (~8kg and Battery operation).
- Wireless Comm. Remote Operability.
- Splashproof - IP54 rated. Powerful and user-friendly software
- **Applications:** Industrial hygiene & exposure monitoring, Confined space monitoring, Shipping container monitoring, Anesthetic waste gas monitoring, HAZMAT & first response etc.



Atmospheric Research Monitoring

Green House Gas (GHG) Analyzer - Mid IR

- Models: Continuous / Portable carried Analyzers
- MIRA: Mid IR Laser Absorption Spectroscopy technology.
- Gas list: CH₄, C₂H₂, C₂H₆, H₂O, EtO, CH₂O, CO, CO₂, N₂O, OCS, HCHO
- <1 ppb/s sensitivity, ppt ppb level accuracy.
- 10-30x improvement across critical metrics.
- Applications: GHG (N₂O, CO etc.) analysis, N₂O soil chambers, CO₂ Isotopes analysis, Methane leaks in Landfill sites, Wellpad monitoring, Energy/Natural gas, HCHO mapping in air, EtO in Sterilization facilities, Oil seeps and Sewer gas etc.



Ultra (Continuous)



Pico (Portable)

N₂O Isotopic Gas Analyzer - QCL

- Only instrument available for Nitrogen Isotopes measurement
- Measures up to five N₂O isotopologues simultaneously:
¹⁴N¹⁴N¹⁶O, ¹⁵N¹⁴N¹⁶O, ¹⁴N¹⁵N¹⁶O, ¹⁴N¹⁴N¹⁸O, ¹⁴N¹⁴N¹⁷O.
- Based on Mid-infrared laser absorption spectroscopy. Uses Quantum Cascade Lasers.
- Direct site-specific measurement.
- Suitable for measurement in ambient air / flux chambers.
- Isotopic N₂O monitoring in laboratory or in field.



MGAi-N₂O

Multicompound GHG Analyzer - QCL

- Measures 5 or 10 gases simultaneously: CH₄, CO, CO₂, N₂O, H₂O, NO, NO₂, SO₂, NH₃, O₃
- Based on Mid-infrared laser absorption spectroscopy. Uses Quantum Cascade Lasers.
- Automated water vapor correction
- High time resolution (1 Hz or 10 Hz)
- High precision for ambient air quality and greenhouse gas monitoring at low concentrations
- For mobile measurements (aircraft, vehicle, marine, ground-based stations) & eddy covariance flux monitoring



MGA⁵-MGA¹⁰ Series

Open Path FTIR Air Monitoring System

- Gases: SO₂, CO, CO₂, CH₄, HF, NH₃, HCl, HCN, H₂S, NO, NO₂, N₂O, HCHO, organic acids, Hydrocarbons C₁-C₆; halons; refrigerants,
- 60+ compounds measured simultaneously.
- Internal 3" Cassegrain telescope.
- IR source: Either 5" or 20" for bistatic paths.
- Path lengths: 25-500m
- Detection limit: ppb (when path <100m)
- No calibration gas needed; unattended continuous operation.
- Applications:** Fenceline monitoring; Fugitive emissions quantification & leak detection; Wild fire; Shipping; Volcanology; GHG's; Building protection etc.



AMS

Burning Rate Test Bench

- To study flammability & combustion behaviour of flammable liquids & gases.
- Samples: Flammable Liquids (Diesel, Gasoline, Ethanol, Biodiesel, etc) / Flammable Gases (Methane, Propane, H₂, CNG, LNG)
- Parameters: Mass burning rate, Flame temperature, Flame length, Thermal radiation, Smoke Concentrations (Optional), Toxic Gases (Optional).
- Features: load cell, thermocouples, 7" touch screen display
- Can append advanced gas/dust analyzer, thermal cameras etc.



BRTB-L

Portable Stack / Emissions / Field Testing FTIR Analyzer

- Measures upto 50 gases simultaneously viz., H₂O, CO₂, CO, NO, NO₂, N₂O, SO₂, NH₃, CH₄, HCl, HF and different VOCs.
- Realtime results reliably and remotely
- Applications: Stack testing: QAL2 tests for HCl, NH₃, SO₂, NO_x and other gases; Scrubber and catalyst efficiency research; Combustion research; Carbon capture and storage; HCHO emissions from biogas, Li Ion Battery, Fire effluents.



GT 6000 Mobilis

Holistic 3D Dust Monitoring System

- Integro™ LIDAR Network monitors on-site dust levels and displays data in near-real time
- Uses Light Detection and Ranging (LIDAR) Leosphere Windcube® sensors.
- Configured for radial/vertical scan
- Captures 10k-50k data/scan every 5-10 mins.
- 3 or more stations to be setup.
- Capture, analyse & correlate data every 5-10 mins.
- Web browser-based, fully-interactive interface gives users high-resolution Google Earth-like 3D viewing experience.



Integro™

