SWAN ENVIRONMENTAL

MONITORING SOLUTIONS

Emission Monitoring

Process Monitoring

Leak Detection

R & D Analysis

OUR GLOBAL PARTNERS

SHIMADZU Excellence in Science · DXG · beamonics · gasmet · IMR · Nulech

Chromatotec · INFICON · Dräger · LUMEX · MIP · SAXON Junkalor

ECOMER group of companies · Auburn FilterSense Particulate Monitoring and Control Solutions · analytics ltd. · MICRO by Sensirion · messkonzept Analytical Technology

ICI · LDARtools · Honeywell RAE Systems · acoem · AERIS Technologies · MIRO · KANOMAX The Ultimate Measurements

NDIR based CEMS

- Measures : SO_2, NOx, CO, CO_2, O_2.
- Shimadzu's latest switch-type ratio measurement technology for SO_2, NOx, CO, CO_2. Electrochemical/magnetic wind for O_2.
- User-friendly Human-machine interface.
- Self-check function for internal status.
- Records upto 1year data at a 10s rate
- Applications: Monitor exhaust gases from boilers, refineries, iron, steel, cement, industrial furnaces, large combustion devices, waste incineration plants etc.

TUV (India) Cert. Double Pass Laser Dust Monitor

- For continuous stack dust mesurement
- Based on the double pass measurement principle.
- Laser light source for ultimate Wavelength Stability.
- Excellent Collimation (0.04°) for accuracy and sensitivity.
- Stacks: 0.5m-10m. (optional lens for stacks upto 40m)
- Range: 0-90%.
- 4 selectable measuring ranges.
- Analogue and digital display.
- Settable alarm relay limit.

Real-time Extractive Gas Analyzer

- Based on TDLAS principle.
- Measurable gases: O_2, HF, CO, CO_2, CH_4, H_2S, NO, NH_3, N_2O, H_2O
- High-precision & fast response allows multi-point sampling and analysis.
- Ranges: ppb to atmospheric sat. levels
- PLC & Computer systems integrable.
- Applications: Extractive gas analysis, Lab. gas sensing, Industrial process monitoring, Explosion risk management, Mobile Analysis in Harsh Environments etc.

In-Situ Flue Gas Analyzer

- Measures any two gases of: NOx, SO_2, and NH_3.
- NO/NO_2 measurements without a NOx converter.
- Utilizes Differential Optical Absorption Spectroscopy (DOAS) method, eliminating the need for calibration.
- Measures in 200~400nm (low UV) for high precision.
- US EPA (USA) and TUV (Germany) Certified.

TUV & MCERTS Cert. FTIR based CEMS

- Measures H_2O, CO_2, CO, N_2O, NO, NO_2, SO_2, HCl, HF, NH_3, CH_4, C_2H_6, C_3H_8 etc. Opt TOC (ZID), O_2 (Zr).
- Fourier Transform Infra Red (FTIR) principle
- Ideal to measure trace concentrations of pollutants from hot, wet and corrosive gas streams.
- Can be easily configured for new set of compounds.
- Fully automatic operation by Calcmet™ software.
- Both data & alarm information can be transferred to other reporting systems in analog or digital format.
- Reliable system with low need for maintenance

TUV & MCERTS Cert. Mercury Monitor

- For measuring Hg continuously from hot, wet and corrosive gas streams.
- Cold Vapor Atomic Fluorescence (CVAF) measurement principle.
- Lowest certified range: 0-5 $\mu g/m^3$.
- Very low detection limit (ng/Nm^3).
- No need for separate chemicals, concentrators, scrubbers, gases
- Fully automatic system. Quick response. Online results with Calcmet™ software.

Temperature, Pressure & Flow-rate Integrated Monitor

- Optimal for low flowrate (1m/s~5m/s).
- Has high-precision micro differential pressure/static pressure sensor and special pitot tube.
- With automatic calibration and purge .
- User can set interval of purge/zeroing
- LCD display for user friendly human machine interface
- Applications: Optimal for low flow ; high temperature, high humidity and high dust in flue of boiler and furnace as well as exhaust duct of mine etc.

Single Pass Optical Dust Counter

- Measures mass concentration of dust (0-100g/m^3) and optical density (0-4) in the flue gases.
- Based on measuring losses of optical power of LED radiation passing through a gas duct.
- Gas duct diameter : 1-4m / 0.5-20m
- Blower to remove dust from lenses.
- Applications: flue gases of fuel-burning plants operated on any type of fuel.

Ultrasonic Flowmeter

- Measures gas flow rate and velocity using ultrasonic signals
- Allows representative measurements of large diameter stacks using the cross-duct method
- Measuring Ranges: 0~50 m/sec
- Measurement Distances in: 1~50 m
- Gas Temperature: < +150 °C.

IR Flowmeter

- Continuously measures flow rate and discharge of gases emitted by fuel-burning plants operated on any fuel.
- Infrared cross-correlation principle
- Gas flow rate range: from 0.2 to 50 m/s
- Contact-free measurements.
- Straight sections of the gas duct before and after installation are not necessary.
- Operates even in hot smoke gases up to 1000°C, severely dusted environments etc.

Portable FTIR Stack Emission / Combustion / Fire Toxicity Analyzer

- Powerful, Reliable, Rapid, Portable & Robust Instrument.
- Gives clear OK / Not OK in software to indicate if device is ready or not.
- Portable sampling system utilizes hot-and-wet measurement principle
- PSS can also be equipped with ZrO2 sensor for accurate O2 measurement.
- Measures H_2O, CO_2, CO, NO, NO_2, N_2O, SO_2, NH_3, CH_4, HCl, HF & VOCs.
- Can measure up to 50 gases simultaneously. Additional gases can be easily added without any hardware changes.
- Even the smallest concentrations are measured with high accuracy.
- Results can be accessed via PC or tablet with Calcmet software.
- With Calcmet software identify unknown gases.



Portable Stack Gas Analyzer - 4 or 8 Sensors

- Can be equipped with up to 4 or 8 sensors.
- Basic unit has O_2, CO_2, CO, NO and SO_2 Sensors. The other sensors are customer selectable as well as the measuring ranges.
- Can optionally measure NO_2, H_2S, HC etc.
- Automatic zero calibration.
- Integrated self-check program.
- Illuminated display shows the parameters.
- Printer with programmable print out cycles.
- Rechargeable battery with charger.


Portable TOC / THC & NMHC Analyzer

- Adopts catalytic oxidation + double FIDs to analyze TOC / THC & NMHC.
- Measurement Range: 0~10/100/1000/10000mg/m³ (Extendable)
- Analyze THC & NMHC at the same time
- Highly integrated design, total wt <12KG.
- High test efficiency. Low pre-heating time.
- Large-capacity battery (45Ah).
- Detachable touch screen terminal with Wi-Fi comm.
- H2 is supplied by mini built-in metal hydride cylinder

Portable Flue Gas Analyzer

- Gases: NOx (NO/NO_2), SO_2, CO, CO_2 & O_2
- Principles: UV DOAS, TDLS, Para.
- Range: 0-75/1000 ppm, 0-500 ppm, 0-40 vol%, 0-25 vol%
- Direct measurement of NO and NO2. Convertor not required.
- Optional printer.
- Continuous or Mobile operated.
- Applications: QAL2 audit, Catalyst Efficiency, Combustion & Engine Emission etc.

Micro GC Fusion® Gas Analyzer

- Fusion Auto-Sensing Technology (FAST) coupled with MEMS TCD
- 1 ppm sensitivity.
- Rapid analysis, 1–3 minutes.
- Front panel display provides instrument control, analysis result and status update.
- Multiple module parallel analysis with fast temperature ramping.
- Web based user interface accessible from any browser.
- Embedded Wi-Fi for control from computer & smart phone.

Portable VOC Analyzer

- Compact VOC analyzer for continuous and realtime qualification and quantification of benzene, toluene, ethylbenzene, xylenes in standards and other VOCs in options.
- Field-portable design. Compact size and low weight. Powered by mains or battery.
- Deployment in less than 5 min. Analysis in just 10 min.
- Color touch screen, Sequence programmation
- Detection limit lower than 1 ppb for benzene.

Selective VOC Gas Detector

- GC + PID sensor
- Target compounds (analysis mode): Benzene, Butadiene and 44+ other VOCs
- Total VOC measurement in Seeker mode
- Extendable database
- Internal pump. 10 m probe attachable.
- ATEX, Zone 0, Zone 1 Approved
- For frequent testing of toxic and carcinogenic substances

Portable Mercury Emission Analyzer

- Measures total Hg (and speciation) in flue gas
- Sorbent trap method
- Easy to use and transport
- Range: 0.5 - 50,000 ng Hg absolute
- Fast on-site analyses (2–10 minutes per sample)
- No compressed gases
- Versatility: analyses of coal, ash, sludge, wastewater with the same analytical system

Portable Dust Monitor

- Based on Multichannel laser scattered light principle
- Particle mass concentration Range: 200µg/m³ - 250 mg/ m³
- Particle size : 0.04-10 µm.
- Can withstand media upto 500°C temperature & 80°C dew point.
- Displays numerical & graphical results on the touch display
- Data can be stored locally or on a seperate USB stick
- Easy handling, low maintenance & an internal log function

ZrO_2 Oxygen Analyzers

- High quality zirconium sensors, reinforced platinum electrode layer.
- Simple installation and operation - 4-key user interface controlling all functions.
- Direct integration into the plant control system.
- On-site service and maintenance - all parts can be replaced

Low Temp. -Combined

Low-temperature oxygen analyser (Available in two options):

- COMBINED VERSION - a control unit fully integrated in the probe. The measuring probe is connected to the control unit in one fully integrated system. This is the ideal choice for installations where access to the probe is easy, due to its lower cost and installation time.
- SEPARATED VERSION - a control unit connected remotely to the probe. It enables direct measurement of in-situ oxygen in all combustion processes up to 700°C /1292°F. The readings are displayed remotely on the disconnected control unit. This option is recommended in places where access to the probe is difficult due to technical or environmental reasons.

Low Temp. -Separated

High-temperature oxygen analyser (in-situ)

- It enables the measurement of oxygen content in combustion processes at temperatures up to 1250°C/2282°F. The probe is available in a variety of lengths and with protective covers to suit individual temperatures

High Temp.

CO Monitoring in Economizer Outlet

- Accurate in-situ type CO & CO_2 analyzer using NDIR.
- Improved accuracy by complementing CO absorption wavelength of the infrared and signals of surrounding section.
- Designed for operations in extreme conditions and best suited for efficiency control at boiler.
- Applied Detector with high sensitivity.
- Simple optical path increases efficiency of optical transmission from light source to detector.
- It is equipped with air purge unit.

Online MicroGC CNG/CBG Analyzer

- microGC Analysis using TCD.
- Cycle time: 15-60s.
- Calorific value calculation for natural gas as per ISO 6976:2016
- Detection limit: 500ppb to 100 %.
- For continuous /manual gas mixture monitoring of Natural Gas, Bio Gas, Flare Gas etc.
- Fast exchange of GC unit catridges even by end user.
- Applications: Natural gas composition analysis (incl. H_2), Calorific value and Wobbe Index calculation of Natural Gas, BTX and C9-C12 monitoring, Bio Gas composition analysis, Analysis of impurities in Pure H_2 generation.
- ATEX / Class 1 model also available.

Gas Impurities Analyzer (N_2, H_2 etc.)

- For the analysis of permanent gases and/or hydrocarbons.
- Continuous monitoring with automatic online sampling.
- Analytical performances: Specific, linear and very sensitive TCD (Thermal Conductivity Detector) detection.
- Automatic calibration/validation of the data.
- Long term stability.
- More than 10 years data storage.
- Automatic control with process device.
- Intelligents system with tunable and interactive alarm levels.

Online Binary Gas Analyzer

- Based on thermal conductivity detection (TCD).
- Measurable gases: H_2, O_2, He, CO_2, N_2, Ar, CH_4, SF_6, NO_2, Ne, Kr, R125, D_2
- Additional O2 module for oxygen measurement
- Extractive sampling.
- Measure Low-noise in trace range
- Cross-sensitivity compensation using computing in real time.
- Revised intuitive operating menu
- Modbus RTU via RS485 Communication
- Application: Gas Turbine

Calorific Value (CV) Analyzer

- Automatic industrial gas analyzer which can measure hydrocarbons in natural gas and gaseous fuels.
- Uses Thermal Conductivity Detector (TCD).
- Continuous monitoring with automatic online sampling.
- Pressure safety at detector outlet protecta the filament.
- Calorific value unit is configurable.
- Full traceability of results and calibration. > 10y data storage.
- Automatic control with process device.
- Intelligence system with tunable & interactive alarms levels.

Odourous Sulfur Compounds Monitor

- Online analysis and monitoring of odorous sulfur compounds (H_2S, Mercaptans, Sulfides).
- TRSMEDOR is based on GC - EC Wet Cell Detection.
- ISO 19739:2004, DIN 51855/7, ASTM D 7493-08 Compliant.
- Automatic calibration/validation of the data
- Useful for Fence line, Fermentation process, Deodorization process, Fugitive emission.
- Intelligent system with tunable and interactive alarm levels.
- Remote monitoring & injection control.

Trace Impurities (in H_2) Analyzer

- Measures trace impurities(ppb/ppm) N_2, Ar, HeO_2, CH_4, CO, CO_2, NMHC, sulfurs, HCHO, NH_3, halogenated formic acid & H_2O in H_2.
- Integrated GC System for monitoring H_2 Purity.
- Meets ultra-high purity requirements for H_2 used in fuel cells (ISO 14687).
- Uses a combination of plasma emission detector, thermal conductivity detector and a quartz crystal moisture sensor.
- Applications: Electrolysis systems producing green H_2, Steam CH_4 reforming, Grey H_2 etc.

Binary Gas Analyzer (for H_2)

- For measurement of binary gas mixes such as air in hydrogen
- Thermal conductivity analyzer .
- Determines the purity of H2 90%-100%.
- ATEX, IECEx certified (Optional).
- Typical ranges: 0...5 % up to 0...100 %
- Accuracy of better than ±1 % full scale
- IP66 rated enclosure
- Touch-screen display allows calibration or adjustment
- Meets the requirements of IEC SIL2.

Paramagnetic O_2 Analyzer

- Rugged, reliable and precise O_2 measurements in Process gases.
- Thermo-paramagnetic principle.
- Range: 0-50% or 20-100%
- LDL: <100ppm O_2
- IP66. Meets SIL2 requirements
- Applications: Hydrocarbon storage tank, Reactor blanketing, Process control, Natural gas monitoring, N_2/O_2 generator quality.

Intrinsically Safe Trace O_2 Analyzer

- Engineered for precision trace oxygen detection and percentage analysis in demanding environments.
- Based on Electrochemical detection. Uses maintenance free galvanic O_2 sensors.
- Range: 0-10/100/1000 ppm or 0-1/25%
- LDL: 50ppb
- 2 user configurable alarms.
- Sensor options for different background gases.

In-Line O_2 Analyzer

- Measures O_2 concentration directly in process gas stream. No complex sampling systems.
- Solid State Ceramic Oxygen Sensor.
- Range: 0-25%
- IECEx and ATEX certified.
- Manual or Automatic Actuation.
- Applications: Perfectly suited to safety critical applications within chemical and pharmaceutical industries as sensor can be removed/replaced without opening the process to ambient air.

Ultra Trace O_2 Analyzer

- Provides accurate, stable, and dependable oxygen readings
- Built with advanced electrochemical or Pico ion MS sensor.
- Range: 0-500/1000 ppb or 0-1/10/100/1000 ppm
- Bench/Portable/Wall/Panel
- Applications: Measure trace O_2 in Ultra-pure Ar, H_2, He & N_2
- Integrated bypass sample systems

SIL Certified O_2 Analyzer

- Designed for highly reliable oxygen measurement in safety critical applications.
- Principle: Zr / ECD
- Range: 0-25%
- Meets SIL 2 requirements.
- Applications: In chemical, pharmaceutical and additive manufacturing industries for Centrifuges, Reactor vessels, Mills, Dryers etc.

Trace O_2 Analyzer

- Detects trace O_2 in inert background gases viz., N_2, Ar, He, CO_2, Kr etc. to verify their purity.
- Uses Metallic Sealed Reference Sensor (MSRS) technology.
- Range: 0.1ppm to 25%/100%
- Fast response (<2s) for quick action during gas leaks viz., Si Wafer Production.
- Applications: Industrial gas production, welding, laboratories, cylinder filling.

O_2 Transmitter

- Electrochemical Sensor. Galvanic Fuel Cell Oxygen Transmitter .
- Highly reliable and cost effective, 2-wire, loop-powered transmitter
- Range: 0-25%
- IECEx and ATEX certified for gas and dust.
- Process Connection for direct insertion or remote sampling applications KF40, Flow-through or 2” Tri-clamp
- Industry Standard 4-20mA Output.

O_2 Transmitter for Combustion Control

- Zirconium Dioxide transmitter
- Range: 0-25% / 0-100%
- Sample temperature: -100°C to +400°C
- Manual / automatic calibration
- Digital/analog outputs
- IP66, CE, ISO9001 certified.
- Applications: Combustion processes, Excess air monitoring, Bakery ovens etc.

Underground CGD Leak Detector

- Innovative gas detector system for easy survey of gas pipelines.
- Principle: Gas Chromatograph (GC) and IR-sensor combination.
- Sensitivity: 1 ppm to 100% Vol CH4.
- Applications: Natural gas pipelines survey, Emergency situations, Landfill emission monitoring and Biogas and wastewater treatment plant leak and emission monitoring.
- Certified for use in Zone 0.
- No false alarms, high sensitivity, quick reaction & short recovery time.

Innovative Survey System

- Route walked by the operator can be visualized on GIS using integrated GPS. Leaks can be pinpointed leaks with a minimum of bar holes. Integrated GPS chip allows reliable location tracking.
- Mono-Wheeler Carpet Probe: Walk on a curb
- Bell: Draw gas samples
- Flexible Extension: Search in hard-to-reach areas
- Bar Hole Probe: Perform bar hole tests

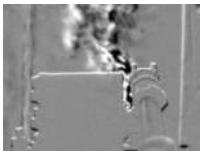




Mono wheeler *Bell* *Flexible Extension* *Bar Hole Probe*

VOC Mapper/Inspector

- Principle: Combination of TDLAS with high-res OGI camera.
- Swiftly visualizes and locates leaks of methane, organic gases, and VOCs.
- Detects 20 different gases.
- Applications: Flammable and toxic gas leak detection, Latent fault detection, Petrochemical, Industrial vision systems, Aerial radiometric imaging, UAV integration.
- Laser ranging to provide distance value.
- ATEX certified - explosion proof.
- Wi-Fi, Bluetooth, GPS enabled.

Acoustic & Thermal Imaging Camera

- Principles: Acoustic - 176 digital microphones at 200 kHz ; Thermal - Uncooled microbolometer.
- Acoustic frequency range 2 -100 kHz ; Thermal spectral range - Longwave IR from 8-14 µm.
- Live on-screen results at 100 acoustic fps. With Night vision.
- Applications: Compressed air/gas/vacuum leak detection, Partial discharge detection, Condition-based monitoring, Non-destructive testing.


Ex-Certified Hydrogen Leak Detector

- Sensistor sensor technology.
- Range: 0.5 ppm - 0.2% H2.
- Applications: fuel cells, oxygen supply, fire extinguishing systems, hydrogen-cooled generators, pipes, valves, containers
- Intrinsically safe for use in hazardous areas (Ex ia IIC T3)
- Portable, battery operated (> 7 hours of use per charge)

Portable HydroCarbons Analyzer

- Based on FID technology.
- To perform Method 21 inspections as well as other THC detection.
- Range: 0-1,00,000ppm.
- ATEX certified.
- Can be entirely controlled by a wireless hand-held device.
- Pump throttling maintains a consistent sample flow

Ex-Certified Hydrogen Leak Detector

- Principle: Sensistor technology. Highly selective H2 sensor for reliable detection.
- Sensitivity: 0.7 ppm H2 in air. (Adjustable)
- Applications: Pressurized telecom cables - buried/ducted, All types of water pipes, Gas pipelines, Gas stations, Heating systems, Fiber cable ducts, Gas-filled power cables.
- Quick charging in car (5 min charge for 20 min operation)

Remote Gas Analyzer

- Remotely detect & analyze gas leaks.
- Based on TDLAS principle.
- Gases: HF, CO, CO_2, CH_4, H_2S, NH_3.
- Range: 30m / 100m (with reflector).
- Drone / Portable / stationary setup.
- Applications: Hazardous Gas Monitoring, Environmental Surveillance, Gas Detection, Industrial Leak Detection, Remote Emissions Analysis.

Handheld VOC Monitors

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

Benzene Monitor

- Most advanced compound-specific monitor.
- Accurate measurement of benzene from 10 ppb to 200 ppm and other VOC's up to 10,000 ppm.
- 60sec response for benzene measurement
- Unique 15-minute benzene STEL measurement.
- Excellent versatility for entry pre-screening, marine spill response, and refinery down-stream monitoring.

Online Syngas Analyzer

- Used for measurement of the concentration of up to 6 gases such as CO, CO_2, H_2, O_2, CH_4, C_nH_m, C_2H_2 and C_2H_4 simultaneously, and calculate the gas heating value (caloric value) and N_2 balance.
- Adopts intl. advanced NDIR & TCD gas analysis technology.
- Modular sensor design. Easy operation and maintenance.
- Integrated RS232/RS485 & 4-20mA outputs.
- Equipped with a Bluetooth module. Assist with a Smartphone APP software, it can realize Remote Control, Data download, and Remote online diagnosis function

Online Biogas Analyzer

- Measures CH_4, CO_2, H_2S and O_2 simultaneously
- Based on NDIR technology for CH_4 ,CO_2 gases and ECD technology for H_2S and O_2
- Applications: Biogas plants, landfill sites, water treatment, sludge digestion, biomethane production, CDM project, Anaerobic digestion and other fermentation processes.
- 4-20mA output and RS232 communication are available
- Modular sensor design. Easy operation and maintenance
- Self-developed gas conditioning device to remove vapor and dust in biogas for analyzer's protection.

Ex-proof Wall Mounted Online Biogas Analyzer

- Ex-proof enclosure which can be installed in Zone 2 hazardous zone.
- Continuous monitoring on CH_4, CO_2, H_2S, O_2 for better process control, N_2 calculation is supported
- Long lifetime H_2S modular sensor with auto-air purge function
- Modular sensor design enables easy calibration and maintenance
- Equipped with LCD display for real time data checking
- RS232, 4-20mA output available
- Can equip gas conditioning configuration externally

Portable Biogas Analyzer

- Measures CH4, CO2, H2S and O2 concentration simultaneously
- Based on NDIR (CH4, CO2) and ECD technologies (H2S, O2)
- Range: CH4: 0-100%, CO2: 0-50%, H2S: 0-9999ppm, O2: 0-25%
- Rechargeable Lithium battery supports up to 8 hours continuous working.
- In-built memory for up to 2560 units of records, easy to download the data to PC.
- Applications: landfill, water treatment, CDM projects, anaerobic digestion & other fermentation processes

Ultrasonic Bio-Gas Flowmeter

- Measure natural gas flow and other kind of gases flow
- Uses the latest ultrasonic transit-time differential method
- No moving parts, Corrosion resistant, Few pressure losses.
- Reliable accuracy in real time and need no routine maintenance.
- All-in-one detect probe measures flow velocity, temperature and composition directly.
- Widely applied in industries of petroleum, chemical, electricity, metallurgy, urban gas supply etc.

Trace Moisture Analyzers

- ppm H2O measurement in corrosive gases.
- Phosphorus pentoxide (P2O5) sensors
- USB Recording. Remote Access per Website
- Bench, portable, wall mount and 19" rack models.
- Sample system as per model.
- Ranges: 0 - 10 / 0 - 100 / 0 - 1000 / 0 - 2500 ppm

Continuous NH_3 Analyzer

- FTUV Principle: Extraction by Fourier transform and the specific NH3 spectrum in ultraviolet is observed
- Identifies ammoniac spectrum
- Detection range: 0.1 - 100 ppm
- Can be used to measure emission and deodorization near the exit of waste treatment plant chimney
- Monitors efficiency of filtration system for deodorization.

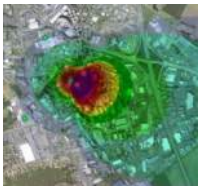
Splashproof Multigas Ambient FTIR Analyzer

- Extremely high accurate & portable package. Battery operation. Wireless communication. IP54 rated.
- Operated by a tablet running a user-friendly software with a clear, visually-pleasing and intuitive design.
- With GT5000 Terra detect hundreds of compounds at once - even the ones not expecting to bump into.
- GT5000 Terra has various application areas, such as: Industrial hygiene & exposure monitoring, Confined space monitoring, Shipping container monitoring, Anesthetic waste gas monitoring, HAZMAT & first response monitoring, Greenhouse gas flux measurements in various ecosystems

- DX4015 – Portable analyzer with heated sample cell for humid conditions.
- With exceptionally low detection limits. Built in pump - no need for a separate sampling system.
- Simultaneous measurements of all gases (even the ones not expecting to bump into).
- Measures gases in wet conditions, such as in swamps or in humid industrial settings.

Ozone Precursors (PAMS 56) and Odor Monitoring System

- All-in-one solution for ozone precursors monitoring in ambient air. airmozone is the solution for in-situ VOC analysis.
- AirmOzone utilizes the airmoVOC C_2-C_6 and an airmoVOC C_6-C_{12} with FID technology. Analyze light & heavy VOCs.
- Monitors 56 compounds of the USEPA list, 88 compounds when TO 14 molecules are added.
- No interferences on 10 compounds which can potentially interfere with benzene (EN 14 662-3).
- Fully automated with internal calibration by airmoCAL.
- VISTACHROM software controls analyzers & enables storage / display of chromatograms.
- This solution comes top in US Environmental Protection Agency (US EPA) field trials and is considered as unique autonomous and integrated solution for on field application.
- For Urban / Non urban area pollution control, Indoor measurements, BTEX/PAMS/CE analysis, Plant/process emissions studies etc.



Green House Gas (GHG) Analyzer

- Models: Continuous / Portable / Drone carried Analyzers
- MIRA: Mid IR Laser Absorption Spectroscopy technology.
- <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 in Landfill sites, Wellpad monitoring, Energy/Natural gas, HCHO mapping in air, EtO in Sterilization facilities, Oil seeps and Sewer gas etc.

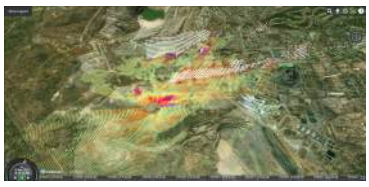
N2O Isotopic Gas Analyzer

- Only instrument available for Nitrogen Isotopes measurement
- Measures up to five N2O isotopologues simultaneously: $^{14}N^{14}N^{16}O$, $^{15}N^{14}N^{16}O$, $^{14}N^{15}N^{16}O$, $^{14}N^{14}N^{18}O$, $^{14}N^{14}N^{17}O$.
- Based on Mid-infrared laser absorption spectroscopy. Uses Quantum Cascade Lasers.
- Direct site-specific measurement.
- Suitable for measurement in ambient air / flux chambers.
- Intuitive touch display enables fast and easy control.
- Isotopic N2O monitoring in laboratory or in field.

Multicompound GHG Analyzer

- Measures 5 or 10 gases simultaneously: CH4 , CO, CO2 , N2O, H2O
- 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

Holistic 3D Dust Monitoring System



- Integro™ LIDAR Network monitors on-site dust levels and displays data in near-real time to enable dust mitigation strategies including suppression systems.
- Uses Light Detection and Ranging (LIDAR) Leosphere Windcube® sensors. Configured for radial/vertical scan
- Captures 10,000-50,000 individual data points of dust dispersion per scan every 5-10 mins.
- 3 or more fixed dust & meteorological 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 .
- For: Stockpiles studies, Train / ship loading activity studies, Conveyor stations, Municipal waste facilities, Remediation sites, Dust source studies, Mining area studies, Settling & evaporation ponds studies.

Handheld Condensation Particle Counter (CPC)

- Concentration range of 0 to 100,000 particles/cm^3
- 5 nm sensitivity
- Programmable data-logging capabilities
- Stores up to 10,000 measurements
- PC Interface with USB & Software for real-time measurements while displaying time fluctuation graph
- Power Supply: alkaline/Ni-MH battery or AC adapter
- For Indoor Air Quality Investigation, Aerosol Research, Filter Test, Environmental Monitoring for Electronics, Food Processing, Pharmaceutical etc.

Contact Us

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