

Total Protection Solution



An ISO 9001 : 2015 Certified Company

HAZARDS IN AIR

- Portable Gas Detectors
- Fixed Gas Detection Systems
- Leak Detectors / Leak Rate Detectors
- Aerosol Monitors, PM 1.0, PM 2.5, Resp., PM 10.0 and Total
- Air Quality (IAQ) Monitor
- Combustion Emission Analysers
- Gas Sensing Solution (Specialised)
- Standard NDIR Based Gas Benches
- Respiratory Air Monitors

Three S Instruments Pvt. Ltd. is engaged in businesses of International quality products based on complete knowledge & assured after sales-services with back up of

TEMPERATURE

- Thermal Imagers
- Non Contact IR Thermometer
- Contact Type Thermometer
- Calibrators



With complete technical know how & team of experts, we provide free warranty services.
There after we undertake annual maintenance as well as calibration contracts on regular basis.

Calibration of Gas Instruments with International Certified Gases

www.3si.co.in

Contact at : Tel : +91-11-25882080, 43895104 • E-mail : sales@3si.co.in

• Bengaluru : bangalore@3si.co.in • Chennai : chennai@3si.co.in • Kolkata : kolkata@3si.co.in • Mumbai : mumbai@3si.co.in

Multi Gas Detector **Polytector III G999**

With integrated suction pump and optional Bluetooth and radio module



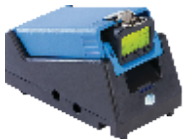
- The **smallest** and most light-weighted 4-7 gases detector.
- Send Live measured data - GfG Link or to mobile app by Bluetooth
- Individual sensor configuration—any profile requirement.
- Ex Protected Integrated lamp, **ATEX approved**
- Data logger & Man down alarm
- **IP 67**, Hybrid sensor (%LEL, PPM, % Vol.), **PID & NDIR** sensor

Multi Gas Detector **G460 & G450**

The World's Most Advanced Multi-sensor Atmospheric Detector



- Detects up to 7 gases together, including **PID sensor for direct reading of Volatile Organic compounds**
- **Full 3-year warranty on O₂, combustible, CO, H₂S, CO₂ (IR) sensors**
- Wide range of additional sensors including **CO₂, SO₂, Cl₂, NH₃, HCN, HCL, PH₃, H₂, NO, NO₂, ClO₂, O₃, Silane, Sulphur dioxide & ETO** & more with 2 year warranty



DS 400

Docking station for G450, G460, G888 and G999

- **Fully automatic** bump test and **quick** calibration
- **Easy handling** with **No PC** required
- **Reduced** cost of ownership.
- **Allows simultaneous charging** of both the **gas detector** G450/G460 and the **attached motorised pump** plus the new G888 and G999 units.

Dual Gas Detector

Micro 5 G222

Sturdy and compact dual gas detector for toxic gases, H₂ and O₂

- **AutoCal** Calibration
- Lasts upto **9 months** on **single** user replaceable "AA" alkaline battery
- Ultra bright alarm lights with 103dB audio, visual and vibrating alarm
- Maximum weight of 135g with sensors, battery and clip.
- High quality, precise, durable and easy to change sensors available for 20 different gases and a wide range of measuring ranges.
- Data logging of measured values, alarms, TWA AND STEL values, time as well as temperature information.



G222

Multi Gas Detector **Microtector III G888**

Gas Detector with optional Bluetooth and radio module



- Send Live measured data - GfG Link or to mobile app by Bluetooth
- AutoCal function.
- Ex protected Integrated lamp
- Data logger & Man down alarm
- **IP 67, ATEX APPROVED**



Single Gas Detector

MICRO IV

Smallest size. Non-disposable MICRO IV



With Pump

- **Three years sensors warranty***
- AutoCal® calibration
- User replaceable "AA" battery & sensors
- Ultra bright alarm lights and 91dB horn
- Interchangeable sensors
- TLV/STEL/TWA Reading & Datalogging (MICRO IV)
- ON "AA" Battery last upto 9 months

* For CO, H₂S & Oxygen only

DS 220

Docking station for MICRO 4

- **Fully automatic** and simultaneous testing of 6 MICRO IVs
- **Simultaneous** Function test & adjustment
- **Integrated** Pump for test Gas



LEAK DETECTORS / LEAK RATE DETECTORS

Portable Leak Detector

G 300 Series

- Small, light and durable leak detector
- For Methane, LPG, Natural gas, CNG, LNG Refrigerants and Ammonia
- More than 8 hours continuous operation
- Explosion-proof models available



GasCheck

Advanced Gas Leak Detector

- Advanced micro thermal conductivity sensor for the rapid, effective detection of gas leaks down to cc/sec, mg/m³ or ppm levels.
- Handheld & robust with LCD Back Lit display
- Gases** He, Hydrogen, Ammonia, Butane, Krypton, Methane, SF₆, Acetone, Argon, Refrigerant R502, R404a, R410a, Deuterium oxide, H₂S, Acetylene, Ethane, Ethylene Oxide, Nitrogen, Oxygen.



IR based HC gas Detector IR 29i/Di

Infrared Transmitter for Combustible Gases



IR 29Di *

IR 29i **

- First **intrinsically safe** infrared transmitter for explosion protection
- ATEX II 1G Ex ia IIC T4 Ga C0158 can also be used in Ex zone 0
- Temperature, moisture and pressure compensation
- Patented infrared (NDIR) 4-beam 4-wavelength
- The energized IR sensor head can be replaced in Ex areas
- Maintenance and service-friendly

* IR 29 Di - Intrinsically safe transmitter for hydrocarbons (LEL) with graphical display

** IR 29 i - Intrinsically safe transmitter for hydrocarbons (LEL)

Transmitters CC28 - Combustible gases



with Local Display & Alarm CC 28 DA

with Local Display & Alarm CC 28 D

Blind CC 28

Display of gas concentration at transmitter
Ex-proof visual and audible alarm
ATEX approval II 2 G EEx dem ib IIC T4
Output 4-20 mA,
Casing Protection Ip64
Electromagnetic Interference Protected

Gases Name (Range in 0-100 % LEL)

Methane	CH ₄	Toluene	C ₇ H ₈	Heptane	C ₇ H ₁₆
Propane	C ₃ H ₈	Ammonia	NH ₃	Methanol	CH ₃ O
Hydrogen	H ₂	Acetylene	C ₂ H ₂	Methyl acetate	C ₃ H ₆ O ₂
Aceton	C ₃ H ₆ O	Benzene	C ₆ H ₆	Methylisobutylketone	C ₈ H ₁₂ O
Diethylether	C ₄ H ₁₀ O	n-Butane	C ₄ H ₁₀	Octane	C ₈ H ₁₈
Ethylene	C ₂ H ₄	Butane-iso	C ₄ H ₁₀	Pentane	C ₅ H ₁₂
Ethyl acetate	C ₄ H ₈ O ₂	2-Butanol	C ₄ H ₁₀ O	Propine	C ₃ H ₄
Hexane	C ₆ H ₁₄	2-Butanon (MEK)	C ₄ H ₈ O	Propylene	C ₃ H ₆
CC sensor Methane	CH ₄	Cyclohexane	C ₆ H ₁₂	Xylene	C ₈ H ₁₀
n-Nonane	C ₉ H ₂₀	Dimethyl ether	C ₂ H ₆ O	Carbon monoxide	CO
Propane	C ₃ H ₈	Ethane	C ₂ H ₆	Natural gas	HC-Mixture
Isopropanol	C ₃ H ₈ O	Ethanol	C ₂ H ₆ O		

Transmitters EC28 - Electrochemical Sensors

For toxic gases, oxygen and hydrogen

ATEX certificate II 1 G EEx ia IIC T4 / II 2 G EEx em [ib] IIC T4

One-man calibration at transmitter Plug-in smart sensor



- Output signal 4 – 20 mA,
- Casing protection IP64
- Intrinsically safe (EC28i, EC28 Di) 1 relay (EC28 DAR),
- Electromagnetic Interference Protected - EN 50270

Gases and Detection Ranges (ppm)

Ammonia NH ₃	Chlorine Cl ₂	Chlorine dioxide ClO ₂	Hydrogen chloride HCl	Hydrogen cyanide HCN	Ethylene oxide C ₂ H ₄ O	Hydrogen fluoride HF	Carbon monoxide CO
0 .. 200 0 .. 500 0 .. 1000	0 .. 50 0 .. 250	0 .. 2	0 .. 30 0 .. 200	0 .. 50 0 .. 200	0 .. 100	0 .. 10	0 .. 500 0 .. 2000

Ozone O ₃	Phosgene COCl ₂	Oxygen O ₂	Sulfur dioxide SO ₂	Hydrogen sulfide H ₂ S	Silan SiH ₄	Nitrogen dioxide NO ₂	Nitrogen monoxide NO	Hydrogen H ₂
0 .. 1 0 .. 5	0 .. 2	0 .. 30 Vol.-%	0 .. 50 0 .. 500	0 .. 200 0 .. 1000	0 .. 50	0 .. 50 0 .. 200	0 .. 300 0 .. 1500	0 .. 2000 0 .. 1 Vol.-% 0 .. 4 Vol.-%

Transmitter Series 22

with analog or digital
Modbus RS485 output

All models come with optional display

Transmitter CC22 for combustible gases

- Uses the proven heat of reaction principle
- Long service life of the sensors
- High efficiency and low follow-up costs
- Cost-effective single-man adjustment
- Affordable solution for many measuring tasks



Transmitter CC22ex

For flammable gases and vapours in Ex zone 2
Gases and Detection Range:

- Flammable gases and vapors such as H₂, CH₄, C₃H₈, C₂H₆O, C₂H₆O Etc.
- Dependant on the sensor used, 0 to 100 % LEL Catalytic combustion (CC)
- Output Signal: RS-485 (Modbus) T90 ≤ 10 seconds



Transmitter EC22

for toxic gases, oxygen and hydrogen

- Long service life of the sensors
- High efficiency and low follow-up costs
- Cost-effective single-man adjustment
- Affordable solution for many measuring tasks



EC22 DS Transmitter

Monitor exhaust gases from gasoline and diesel engines

- Internal combustion engines are used in enclosed or partially enclosed spaces or buildings, there may be elevated concentrations of carbon monoxide (CO) and nitrogen oxides.
- The **EC22 DS dual sensor transmitter** is designed to provide reliable and cost effective monitoring of these gases.
- Sensor combinations **CO/NO** and **CO/NO₂**

Transmitter EC22 O for Oxygen

For electrochemical partial pressure sensors

- Optional: retrofittable display
- Analog output signal 0,2 .. 1mA or 4 .. 20mA or digital output signal (RS485/Modbus)
- Parameterization via digital interface
- 2 status LEDs for operation (green) and fault (yellow)



Transmitter ZD22 for oxygen (O2)

- More than 5 years sensor life
- Extremely fast response time: t90 < 5 sec.
- No pressure, humidity, or temperature influence
- No damage due to CO₂

Measurement principle: Power Limited sensor based on zirconium dioxide

Standard measuring range: **0-2 % Vol., 0-25 Vol.-%, 0-1000PPM O₂, 0 - 96% O₂.** Other ranges on request

Transmitter IR22

For carbon dioxide (CO₂) CH₄, Propane and Difluoromethane - combustible gases (HC)
Durable sensors with expected lifetime >5 years

Transmitter IR22F

CO₂ monitoring down to -40 °C

Gas and measuring range: CO₂ in the range 0 to 5 vol.% Resolution: 0.01 vol.-%

IP 65



FIXED GAS DETECTION SYSTEM - TRANSMITTERS



Transmitter CS22 for the monitoring of toxic and combustible & refrigerant gases

The Transmitter CS22 combines the proven method of chemisorption to detect combustible and toxic gases with the innovative technique of our new transmitter series 22.

- Precise measuring also in dry air conditions and up to **96%** relative air humidity
- Large dynamic measuring range of a few ppm up to Vol.-%
- The cost-efficient and durable alternative to electrochemical sensors
- Linear measurement signal with temperature compensation

TVOC

Fixed continuous VOC detector for the detection and measurement of total volatile organic compounds (VOCs)



- A robust fixed VOC detector, TVOC has a selectable detection range of **0–10 ppm**, **0–100 ppm** or **0–1000 ppm** and is ideal for use in manufacturing & process industries where VOCs are typically present.
- 4–20 mA analogue output
- Can be simply integrated into a DCS control system
- ATEX approved.



Transmitter CI 21 Carrier Injection NH₃ Monitoring in Refrigeration Plants

- Low temperature operate in upto **-40 °C**
- Selective and precise detection even in almost dry air and up to 100 % rel. humidity.
- No false alarm from hydrogen, natural gas, carbon monoxide, oil vapours.
- No damage by high ammonia concentrations.
- **NH₃ - 0 to 200ppm, 0 to 1000 ppm or 0 to 10000ppm.**



Transmitter CC 33 for flammable gases in explosion-proof design Ex-Zone 1

- **IP66** Rating
- Fast response of Less Than 10 seconds
- Conventional die cast aluminium with 10mm thickness & food grade body available
- Food industry can be covered by an unpainted housing made of stainless steel with a 15mm thick bulletproof glass.
- Precalibrated sensors
- Three programmable relays
- Digital & Graphic display

FIXED GAS DETECTION SYSTEM - CONTROLLERS

GMA 200 MW (Wall)/MT (Rack)/GMA 200 RT/RTD

- High Performance Gas Warning System
- Freely Programmable connection of detectors for measuring combustible and toxic gases / vapours & Oxygen
- Other measuring devices/transducers with 4...20mA output signal can also be connected
- Freely programmable Relays
- 16 analogue inputs, 2 digital inputs and 2 RS485 BUS for relay modules or digital transmitters, 1 X RS485 Bus for relay module for extension to add 16 additional relays



GMA 300 / 100



GMA 300/100

Fixed gas monitoring system

- Intelligent & flexible Gas monitoring & warning system
- 1 to 4 sensor controller Function tested by DMT - IBS / PFG
- Retransmission output 4-20mA available
- Suitable for all combustible, Toxic, Oxygen & Hydrogen Transmitters

GMA 40 Series Gas Monitoring Controllers

- Single or four channel controller
- Easy mounting on DIN-rail
- Multiple alarm points with relays



MGSS

Efficient alternative to high-priced sampling systems

- Electronic sampling pump
- Fully automated flow control
- Internal gas distributor for one catalytic combustion sensor and two electrochemical sensors
- Condensate trap, water filter and flame arrestor



GMA 22

WALL MOUNTED CONTROLLER with up to 4 measuring points

- Compact unit for wall mounting optionally monitor one analog (4-20 mA / ACDC®) or up to 4 digital transmitters (RS-485).
- Available with an integrated power supply 230V and as a 24 V DC device.
- Can be configured for any transmitter
- Four relays with one CO contact each or three relays with one CO Contact each and one NO contact



AEROSOL MONITORS

PORTACOUNT® RESPIRATOR FIT TESTER

Models 8040/8048

available for proven quantitative fit testing of all respirators,

- Half-face mask fit testing
- Full-face fit testing
- SCBA, Gas mask and PAPR fit testing
- Quantitative respirator fit testing (QNFT)
- Automates fit testing with FitPro+™ Fit Test Software.
- Disposable filtering-face piece fit testing for Series 100/99/95/P1/P2/P3 masks



MITA

Mask Integrity Test Accessory

- Highest Level of Protection
- Test full face respirators for leaks and ensure the functionality
- Separate test for overall mask integrity (protection factor), exhalation valve and drink tube
- Works in tandem with PortaCount® Respirator Fit Tester
- Easy to use display and quick set up



P-TRAK®

ULTRAFINE PARTICLE COUNTER

MODEL 8525

Ultrafine particles are defined as having a diameter less than 0.1 µm (or 100 nm)

The P-Trak UPC also locates obvious pollutant sources such as boilers, furnaces, and vehicles, and it also detects the not-so-obvious sources such as photocopy machines and printers.

Features and Benefits

- Real-time ultrafine particle counter
- Solves tough IAQ problems
- Easy to use
- Data log information



PERSONAL AEROSOL MONITOR

SIDEPAK™ AM-520

- Real-time aerosol readings of dusts, fumes, mists, smoke and fog within a worker breathing zone.
- Real – time mass concentration range **PM10, Respirable (PM4), PM2.5, PM1** and **0.8µm Diesel Particulate Matter (DPM)**.
- Audible and Visual Alarms
- High capacity battery (more than 20 hours)
- Aerosol Concentration Range **0.001 to 100 mg/m3**



DUSTTRAK™ DRX and DUSTTRAK™ II

AEROSOL MONITORS

MODELS 8533, 8533EP AND 8534

MODELS 8530, 8530EP AND 8532

Real-time Dust & Aerosol Monitoring For Any Environment, Any Application

Features and Benefits All Models



- Real-time mass concentration and size fraction readings, as well as data logging allow for data analysis during and after sampling.
- Simultaneously measure size - segregated mass fraction concentrations corresponding to **PM1, PM2.5, Respirable, PM10 and Total PM size fractions**
- Easy-to-use graphical user interface with color touch-screen for effortless operation

Primary Calibrator

- Provides continuous real-time volumetric flow rate readings, so pump adjustment and calibration is fast and easy
- Battery powered, compact and lightweight
- Comes with a NIST traceable calibration certificate



DUSTTRAK™ Environmental Aerosol Monitor

8540 /8543 Series



- Simultaneously measure size- segregated mass fraction concentrations corresponding to PM1, PM2.5, Respirable, PM 10 and Total PM size fractions, SO₂, NO₂, Temp., Humidity
- Perform in-line gravimetric analysis for custom reference calibrations
- Environmentally protected and tamper-proof with environmental enclosure
- Cloud Data Management System for efficient remote monitoring anywhere
- MCERTS Approved



AIR QUALITY MONITORS

Q-TRAK™

Multi-function Indoor Air Quality Monitor
MODEL 7575 with VOCs



- Simultaneously measures **CO₂, CO, temp. & humidity**
- Calculates dew point, wet bulb and percent outside air.
- One instrument with multiple plug-in probe options including **VOCs in PPB** and **air velocity**
- Stores upto **39** days of data at 1 minute interval
- TrackPro Data analysis software
- **Bluetooth** communication

SI-AQ EXPERT

Portable Indoor Air Quality Monitor



- Customizable to measure up to 7 Gases
- CO₂, CO, % RH, Temp, TVOC's, O₂, NO, NO₂, O₃, SO₂, H₂S, Formaldehyde, Barometric Pressure
- Real-Time Data-Logging Software For Graphs, Data Review, IAQ Reports
- Wireless Communication with PC & Printer
- Active Internal Sampling Pump



SI-AQ PRO

The Latest in Handheld IAQ Monitoring & Real Time Data Logging for Complete Air Quality Analysis

- Up to **3** Gases, Temp., %RH & Barometric Pressure Included
- Real-Time Data Logging with large Internal Memory (2,000 Tests)
- Active Internal Sampling Pump
- Protective Magnetic Rubber Boot
- Optional Wireless Printer & Handheld Probe



Select Up To 3 Gases:

CO₂, CO, NO₂, NO, O₂, SO₂, H₂S, Formaldehyde

BlueSky™

Air Quality Monitors
Models 8143, 8145

- Lightweight, laser based particle measurement instrument.
- Can measure **PM 2.5, PM 10, temp & relative humidity.**
- Connected with TSI Link™ Solutions



SI-AQ COMFORT

Handheld Indoor Air Quality Monitor for IAQ Analysis in Homes, Schools, Offices & More

- IAQ Tool for HVAC Professionals
- Real-Time Data Logging with large Internal Memory (2,000 Tests)
- Active Internal Sampling Pump
- Protective Magnetic Rubber Boot
- Optional Wireless Printer & Handheld Probe
- Long Lasting Rechargeable Battery & AC Charger



CO₂, CO, Temperature, %RH, Wet Bulb, Dew Point, Barometric Pressure



SI-AQ VOC

Handheld TVOCs Monitor for Air Quality Analysis in Industrial Safety, Environmental, Laboratories and More

- **Dynamic PID TVOC Sensor with 0 - 20,000 ppb or 0 - 200 ppm** range, Temp., %RH and Barometric Pressure Included
- Real-Time Data Logging with large Internal Memory (2,000 Tests)
- Active Internal Sampling Pump
- Protective Magnetic Rubber Boot
- Optional Wireless Printer & Handheld Probe



Select Up to 3 Gases in Total:

TVOCs, CO₂, CO, Formaldehyde, NO₂, NO, O₂, SO₂, H₂S

PORTABLE EMISSIONS AND COMBUSTION ANALYSERS



Si-CA 030

Residential & commercial combustion analyser

- Up to three gas sensors O₂, CO & NO/NOx
- CO sensor measurement up to 8,000 ppm
- Automatic Data logging & report creation
- Combustion efficiency & excess air calculations along with calculated CO₂ % value
- Draft & differential pressure measurements
- Calculated CO₂ % value



Si-CA 230

Gas Analyzer for Emissions Monitoring of Boiler, Engine, & Other Combustion Applications

- Up to Six Gas Sensors. Can include O₂, CO, NO, Low NO, NO₂, Low NO₂, SO₂, Low SO₂, H₂S, and C_xH_y
- Large Color Touch Screen & Wireless Printer
- CO dilution auto-range with measurements to 50,000 ppm
- Total NOx, Low NOx, Draft, differential pressure, Stack gas velocity (with Pitot tube) measurements

- Field Replaceable PreCalibrated Sensors
- iOS & android mobile apps for Real-Time Display & Control
- Sample conditioning unit for **low NOx & high moisture** applications
- Emissions values adjusted for reference O₂
- **CO & CO₂** Monitoring in Ambient Air



Si-CA 130

Residential & commercial combustion analyser

- Up to three gas sensors O₂, CO & NO or Low NO (for NOx)
- CO sensor measurement up to 8,000 ppm
- Field replaceable precalibrated sensors
- Automatic Data logging & report creation
- Combustion efficiency & excess air calculations along with calculated CO₂ % value

- Sample conditioning unit for low NOx & high moisture applications
- Draft & differential pressure measurements



Si-CA 8500

Portable Industrial Combustion Flue Gas & Emissions Analyzer For Boiler, Engine, Furnace, & Other Combustion Applications

- Up to NINE (9) Gas Sensors
- Low NO, NO₂ & SO₂
- Stack Gas Velocity
- Built-In Thermoelectric Chiller
- Automatic Condensate Drain
- High Accuracy NDIR Sensors
- Upgraded Memory (2000 Tests)



O₂, CO, CO₂, NO, NO₂, SO₂, C_xH_y (HC), H₂S, VOC



PID VOC Sensor Option

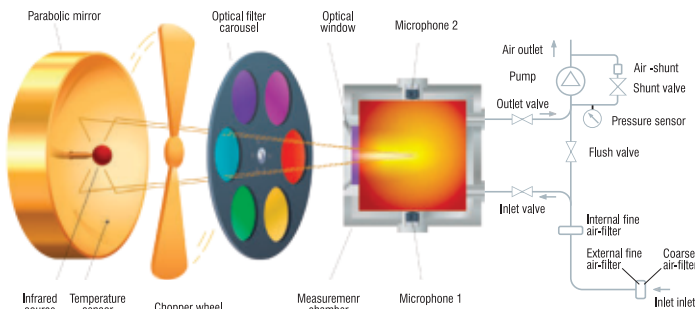


US EPA CTM-30 & CTM-034 Compliant



LUMASENSE SOLUTION FOR GAS SENSING

PHOTOACOUSTIC SPECTROSCOPY



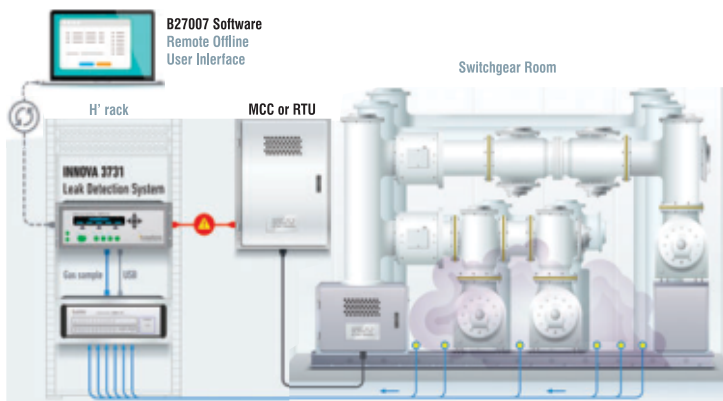
Photoacoustic Spectroscopy (PAS) gas instruments were pioneered and perfected by INNOVA™. With PAS, the absorption (proportional to the concentration) is measured directly and not relative to a background, making PAS highly accurate and stable. Furthermore, all gases and vapor in small volumes can be monitored sequentially in a single measurement chamber as it is possible to detect up to five substances and humidity to be monitored individually.

APPLICATIONS with Specialised Software

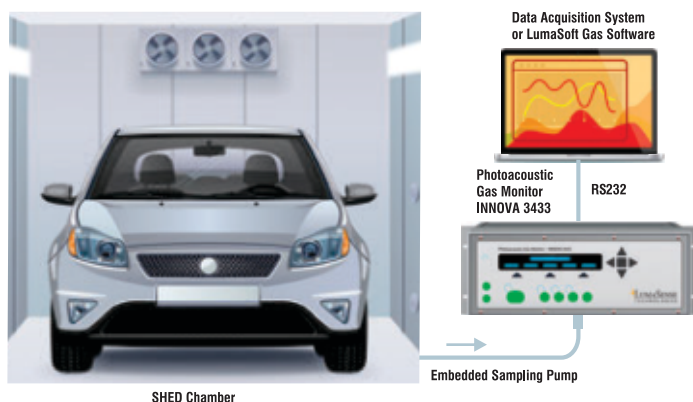
SF₆ LEAK MEASUREMENT SOLUTION

Sf₆ Leak Detection System – 3731

- Ultra-sensitive, with a limit of detection at 6 ppb
- Available in 12 or 24 channels, with sampling lines that can extend to 75 m
- Exceptional accuracy with auto-compensation for temperature and pressure fluctuations, and for water vapor interference



Automotive Emissions Monitoring



LumaSense's INNOVA 3433 Multi Gas monitor is used to measure evaporation emissions (SHED) and vehicle exhaust gas (Constant Volume Samples CVS) approved by EPA and CARB. The INNOVA 1412i can also be used for measurements of Mobile Air Conditioner emissions R134a and HFO-1234yf.

PAS BASED GAS MONITORING SYSTEMS

INNOVA 1512



1512 : Emission monitoring of greenhouse gases from agricultural production, Monitoring of anaesthetic agents in hospitals, Ventilation and air exchange using tracer gas, OHS measurements.

INNOVA 1314i



1314i : **Emission monitoring** - of exhausts from chemical processes, NH₃ in stacks, scrubber efficiency, and filter break-through, Process quality control measurements, OHS measurements and Automotive monitoring - of alcohol content in vehicle exhausts and production of NH₃ and N₂O in diesel exhausts.

INNOVA 3434i



3434i : **SF₆ Leak Detector** - Fast, accurate, quantitative leak testing of GIS for routine quality control or during field commissioning, Area monitoring in substations, Circuit breaker leak testing and Power Utility (Energy T&D).

INNOVA 1403 Multi Point Sampler & Doser



1403 : Multipoint sampler & Doser Full remote control from a PC With special software.

INNOVA Multi Point Sampler 1409



1409 : Multi Point Sampler upto 24 points Full remote control from a PC With special software.

APPLICATIONS with Specialised Software

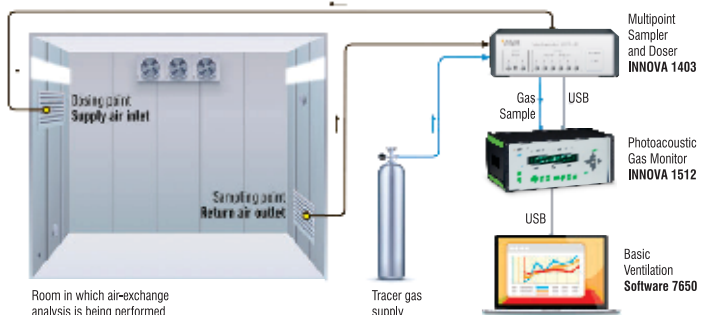
Environmental Emission Monitoring



There is an expanding list of environmental and emission applications where gas sensing solutions are needed. Our INNOVA gas instruments have measured NH₃ in swine and poultry stables, CH₄ in cattle and poultry stables, N₂O from stables and fertilizer, CH₄ from decomposing biomass, and in greenhouses and rice cropping.

Ventilation Performance

Advance Tracer Gas Systems - 3751-2 / 3751-5

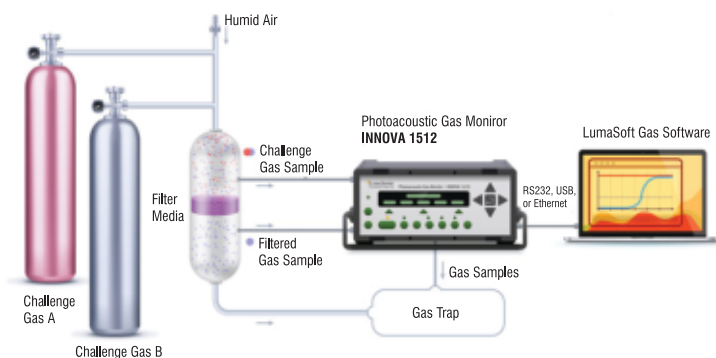


Air Change Rate, or Age-of-air determination Infiltration (or inleakage) characterization Volumetric or mass flow rate measurement using tracer gas dilution Contaminant spread analysis, Re-circulation or re-entrainment testing Capture efficiency of extraction systems.



LUMASENSE SOLUTION FOR GAS SENSING

AIR PURIFICATION DEVICES TESTING USING PRECISE MULTI GAS MONITORS



Schematic view of a typical set-up for testing of filter breakthrough characteristics, with a single Photoacoustic Gas Monitor capable of measuring both the upstream and the downstream concentrations for a selection of challenge gases

7950 MULTI-POINT SOFTWARE

- Perform gas-monitoring tasks in up to 24 different locations
- Stores up to five gas concentrations for each location
- Real time displays of measurement data in both table and graphical window
- Login-secured access to measurement data
- Alarm reporting for each gas at each measurement location

RESPIRATORY AIR MONITORS

RAM 741 - Portable/Multi user option

- Meets OSHA Requirements for Compressed Breathing Air
- Continuous Monitoring of Supplied Air
- Carbon Monoxide and Vapor Detection
- AutoCal® Calibration and Maintenance
- Three Stage Filtering Option for up to 8 users



RAM 4021 - with CO, Dew Point & CO with Dew Point

- Meets OSHA Requirements for Compressed Air
- Continuous Monitoring of Breathing Air
- Optional Oxygen or Dew Point Monitoring
- AutoCal® Calibration
- Multiple Filter Panel Options



Portable Remote Compressed Air Monitor



Measurement of Greenhouse Gases using the Multi-gas Monitor.



Using 1314i/1512 with multipoint sampler

The most important greenhouse gases are water vapour, **carbon dioxide, methane and nitrous oxide**. Usually, measuring long-term average values is considered adequate, but taking into account the fairly big changes that take

place in the interchange between the natural sources and sinks in the atmosphere. To study these phenomena properly a measuring instrument which has a response time of a few minutes is very beneficial.

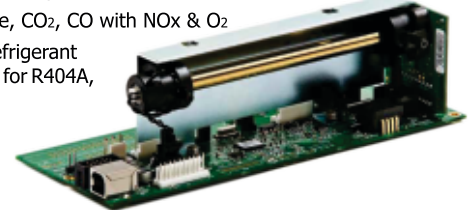
ANDROS NDIR Standard Bench for Automotive and Industrial Gas Monitoring

Model 6500 for Hexane or Propane, CO₂, CO with NOx & O₂ with DP Transducer

Model 6520 for Hexane or Propane, CO₂, CO with NOx & O₂ w/o DP Transducer

Model 6511 for Methane, CO₂, CO with NOx & O₂

Model 6552 Freon for Refrigerant Leak Detection Calibrated for R404A, R507C and CO₂



TEMPERATURE MEASURING INSTRUMENTS



HEATSPY

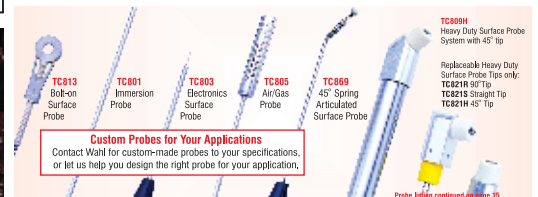
a50 Inspector/a30 Detector

upgrade both models, "a" speed at 9 Hertz captures clear, sharp images! Camera acclimates quickly, every Pixel is individually calibrated! "Double Vision" provides simultaneous capture, Hands-free flashlight



HEAT Prober 2500/1370 Series Type K Thermocouple Meters

Meter range -100 to 2500°F or -70 to 1370°C
Meter accuracy is $\pm 0.2\%$ of reading ± 1 digit
Maxi-Temp® automatically holds peak reading



Custom Probes for Your Applications
Contact Wahl for custom-made probes to your specifications, or let us help you design the right probe for your application.

WAHL Heat-Prober Dipstick high-temperature Thermometers Measure Temperature of ferrous and non ferrous molten metals in monitor stoke



WAHL UNIVERSAL CALIBRATORS

Simultaneous Measurement and Source or Dual Measurement Channels
IP54 Automatic Calibration on HART Protocol Transmitter 21 CFR part 11 compliant
Measure and Generate Voltage, Current, Frequency, Resistance Signals, Resistive Probes and Thermocouples
Pressure Measurements when used with optional External Pressure Module for Absolute or Relative Pressure

Wahl Temp-Plate®

Irreversible Temperature Recorders These economical non-reversible chemical change thermometers instantly record an overheat occurrence and provide a permanent, NIST - traceable record.



Three S Instruments Pvt. Ltd.

J-110, WEST PATEL NAGAR, NEW DELHI-110008
TEL.: +91-11-25882080, 43895104 E-mail : sales@3si.co.in
For Calibration & Services E-mail : service@3si.co.in