Occupational Hygiene and Environmental Instrumentation PRODUCT CATALOGUE

















Dear Valued Client,

Air Quality Measurement Systems Limited is a full-service provider of air quality management solutions operating out of Jamaica.

Our team of highly skilled and experienced engineers and air quality management practitioners has over thirty (30) years of combined experience in air quality management both in the regulatory and industrial sectors.

Our services include:

- Sales of Environmental and Occupational Health and Safety Instrumentation
- Design, supply, installation, maintenance, and repair of ambient air quality measurement systems
- Air Quality Assessments: Opacity Monitoring and Air Dispersion Modelling
- Air Pollutant Discharge License Application and Management

We offer a wide range of instrumentation from the most trusted manufacturers in the areas of Occupational Safety, Health, and Environment. Through our relationship with these manufacturers and their exclusive distributors, we also provide product support for all instrumentation we supply.

Our team is trained and experienced in the design, installation, maintenance, and repair of all major brands of air quality monitoring instrumentation and systems. No matter the scale of the monitoring project, we are able to provide the right solutions to meet our client's needs.

We are committed to delivering the highest quality service and support and are passionate about the availability of such services locally. We stand ready to serve you. Should you require further information about us and our products and services, please feel free to contact us at aqmsja@gmail.com or by telephone at 876-570-0082.

Sincerely, AQMS

# PRODUCT LISTING

Appendix below are Occupational and Environmental Health & Safety Instruments that we supply. Feel free to contact us should you require further information on any of the following:

FLAME DETECTION

COMBUSTION ANALYZER

PERSONAL/AREA SAMPLING PUMPS

VEHICLE SMOKE AND GAS ANALYZERS

**BLAST MONITORING** 

ALCOHOL BREATH TESTERS

LUXMETERS

**RADIATION DETECTORS** 

METEOROLOGICAL SYSTEMS

LEAD TEST KIT

AIR QUALITY MONITORING

PORTABLE GAS ANALYZERS

PARTICULATE SAMPLING

HIVOL PARTICULATES SAMPLERS

ANALYTICAL BALANCES

**BLACK CARBON ANALYZERS** 

**GAS CALIBRATORS** 

AMBIENT ION MONITOR

CASCADE IMPACTORS

INDOOR AIR QUALITY ANALYZERS

**AUDIOMETERS** 

SOURCE SAMPLING

ALCOHOL INTERLOCK SYSTEMS

FIXED GAS DETECTION SYSTEMS

CONSTRUCTION/ MINERAL DUST MONITORING

SOLVENT MONITORING

TUNNEL MONITORING

WASTE TRANSFER & LANDFILL SITE MONITORING

VOC DETECTION

**ENERGY AND COMFORT** 

QUANTITATIVE RESPIRATOR FIT TESTING (QNFT)

INDUSTRIAL/OCCUPATIONAL HYGIENE SURVEYS

BASELINE TRENDING AND SCREENING

REMOTE MONITORING

HVAC COMMISSIONING

CLEAN ROOM CERTIFICATION

TESTING AND BALANCING HVAC SYSTEMS

BIOLOGICAL SAFETY CABINET AND LABORATORY FUME HOOD TESTING

IAQ INVESTIGATIONS

VENTILATION EVALUATIONS

PROCESS AIR FLOW TESTING

**CLEANROOMS** 

PERSONAL EXPOSURE MONITORING

HEAT STRESS AND THERMAL COMFORT MONITOR

**HVAC** 

**BUILDING ASSEMENT/WALL INSULATION** 

**PROCESSING** 

LANDFILL AND WASTE PLANT MONITORING

























































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## **Air Sampling Pumps**

#### **GilAir Plus®**

The GilAir® Plus features wide dynamic flow and pressure ranges to address all personal air sampling methods with flow ranges between 20 and 5, 000 cc/min. With patent pending QuadModeSM air sampling technology, the GilAir® Plus can perform both high-flow constant pressure and constant flow (450-5,000 cc/min) and low-flow constant pressure and constant flow (20-499 cc/min) with a single pump without external adaptors. It's like getting two pumps in one.





#### GilAir-3 and GilAir-5

The GilAir® pumps (GilAir-3 & GilAir-5) have one of the largest user bases of any air sampling pump worldwide. These reliable 3 and 5 liter per minute air sampling pumps have automatic constant flow assuring sampling is maintained within ±5% of the initial set point. Setting the flow rate on the GilAir-3 & GilAir-5 is a simple process that requires no special adjustment tool so you spend less time configuring pumps.

## Gilian® 5000

The Gilian 5000 is a high-performing personal air sampling pump leading the industry in back-pressure performance, reliability and ease-of-use. The pump offer flow rates up to 5000 cc/min, and thanks to several advanced features, the pump overcome the main causes of sampling errors, saving you time and money. The air flow display holds calibration for 30 days, even with atmospheric changes. The back-pressure capabilities of the Gilian 5000 are the highest in the industry for any personal sampling pump.





#### Gilian LFS-113

The LFS-113 is a compact low flow air sampling pump. Designed for flow rates between 1 cc/min and 350 cc/min, the LFS-113 is perfect for very low flow applications sampling with sorbent tubes. Compact size and light weight of this pump allow it to easily fit inside a shirt pocket.

#### Gilian 10i

The high flow capability of the Gilian 10i makes it an ideal pump for applications with flow rates between 5LPM and 10 LPM. This is intrinsically safe certified instrument.





### Gilian 12

The high flow capability of the Gilian 12 enables sampling capability for applications with flow rates between 4LPM and 12 LPM.

#### Gilian 800i

Gilian 800i is a powerful personal air sampling pump targeting applications requiring a 200 to 800 cc/min flow range and back-pressures up to 80 inches H2O. Gilian 800i is an ideal solution for VOC monitoring applications using thermal desorption tubes, including modified versions of NIOSH method 2549 and EPA TO-17 at highe flow rates for improved sensitivities.





#### Gilian BDX II

The Gilian BDX-II is an economical air sampling pump designed specifically for abatement and lead applications. It is a compact and rugged air sampling pump optimized for sample methods between 500 cc/min and 3000 cc/min. The BDX-II is powered by a rechargeable NiMH battery that provides up to 10 hours of operation on a single charge.

## AirCon-2 Sampler

The AirCon-2 sampler is a high volume unit with an extended flow range, designed for collecting particulate in a given plant area. It is ideal for asbestos background and clearance sampling following NIOSH, OSHA or EPA methodology and for ambient dust monitoring. The AirCon-2 System is available in a programmable version that operates off either AC or battery power. It comes with an adjustable tripod mast and connecting hose to hold the filter cassette at the proper height and isolate the filter from the vibration of the unit. Cassette and filter media must be ordered separately.





# Sensidyne CDEM-1000 Coal Dust

Explosibility Meter is a portable, handheld, easy-to-use instrument, which is designed to provide a direct indication of the potential explosibility of a coal and rock dust mixture in accordance with Title 30.



## **AP-20S Gas Detection Pump**

The Sensidyne Gas Detector Tube System is the quality- standard in the industry and the first detector tube pump with an antibacterial grip. Detector tubes safely allow users to perform field screening and tests for the presence of hazardous and toxic gases, and chemical vapors at a very low cost-per-sample. Gas detector tubes from Sensidyne are precision tubes offering a higher level of accuracy and repeatability for applications where results matter

# Sensidyne Nephelometer Aerosol monitor

The Sensidyne Nephelometer is an advanced real-time dust monitor (aerosol monitor) accurately measuring dust concentrations using proven light scatter technology. This portable instrument accurately measures and records dust from 1-10,000  $\mu g/m3$  with resolution to 1  $\mu g/m3$ . Sample modes are selectable between 60 second sample 15 minute STEL, or continuous sampling.,



#### **Calibrators**



### Gilibrator 3

True Primary Standard (NIOSH) Dry Cell Calibrator. The Gilibrator 3 is the most advanced calibrator on the market, designed to provide performance, reliability, and ease-of-use. The Gilibrator 3 truly sets the standard for calibration integrity and data reporting. The Gilibrator 3 is a Primary air flow calibrator by NIOSH definition, and delivers NIST traceability through Sensidyne's ISO 17025 accredited laboratory.

#### Gilibrator 3 features include:

- StablFlow<sup>™</sup> provides constant low back pressure to device being calibrated
- Patent pending pulse-free valve technology maintains calibration integrity
- Touch screen color display that is visible in direct light
- Multiple flow cells with a common base adds convenience and saves cost
- Gilian CONNECT PC compatible for data retrieval, record keeping, and statistical analysis of data
- SmartCal<sup>™</sup> capable with GilAir Plus<sup>®</sup> pumps

### Gilibrator -2®

The Gilibrator-2 System provides users with a convenient and highly automated way to check almost any commercially available air sampling pump for proper air flow function before deployment. The system consists of an electronic Gilibrator-2 Base which is used with any of three sizes of wet bubble cells. These patented interchangeable components are also available as part of kits which can also include a complete calibration diagnostic panel. All cells use a twist-on bayonet design for quick and easy mounting to the base. All are certified for accuracy and traceable to NIST.



#### **Fixed Gas Detection**

## SensAlert Plus Point Gas Detector

Universal Point Gas Detector Accepting Combustible (Infrared or Catalytic), Toxic, and Oxygen Gas Sensors.

- Highest Reliability and Function
- Intrinsically Safe Sensor Head
- Intelligent SensAlert Plus Sensors
- International Approvals
- Flexible Installation or Retrofit





# SensAlert Plus ASI Gas Detector

Advanced Safety Integrity, SIL-2 Certified Point Gas Detector SensAlert ASI is third-party certified to IEC61508 Level 2 (SIL-2) for both hardware and software with certification to global hazardous area and performance standards. The Test-on-Demand feature with on-board gas generator provides remote functionality checks with generated gas while Predictive Sensor End-of-Life indication provides advanced warning of impending sensor failure.

# SensAlarm Plus Point Gas Detection System

SensAlarm Plus is a complete gas detection system in one enclosure. The system is fully equipped with strobe, horn, high-visibility four-digit LED Display and LCD Display/Interface. At the core of SensAlarm Plus is an advanced Intelligent Sensor platform with non-volatile memory for all key application variables and sensor data. A non- intrusive user interface enables operational customization and access to sensor life parameters, TWA alarms, calibration data and other information with date and time recording.





## SensAlert 4-Channel Gas Detection Controller

The SensAlert 4-Channel Controller powers and monitors up to 4 channels of gas detection. With three alarm relays per channel plus a common fault relay, the Controller provides local or remote alarm annunciation via the optional strobe and standard 90 dB buzzer.

# **ZEFON**

#### Sampling Media

- Cassettes Preloaded
- Cassettes IAO
- Filter Membranes
- Cassette Housings
- Shrink Bands
- Cassette Accessories
- Mine Sampling
- Size Selective Cyclones
- Impingers-Bubblers
- Sorbent Tubes
- Surface Sampling
- Bulk Sampling



# Escort LC Personal Sampling Pump

This easy-to-operate, state-of -the-art sampling pump provides constant flow, unaffected by changes in battery voltage, temperature, sample load, or altitude. An internal secondary standard calibrates the pump continuously, requiring only monthly calibration with a primary standard. A built in counter monitors total operating time, and reminds you when a primary calibration is required. The pump also features a low battery function with an indicator light, and blocked flow detection. It may not be used with Tedlar® bags. Order charger separately.

The Twin Port Sampler pump attachment is designed for low flow industrial hygiene sampling, such as gas and vapor monitoring, using sorbent tubes. Two needle valves provide independent flow control for simultaneous collection on two tubes, but can also be used for a single tube by closing the flow to one valve. The sampler is compatible with any personal sampling pump capable of 1.5 Lpm flow rate and a load of 25 in of water. Total flow cannot exceed 500 mL/min.



#### **Sound Level Meters**



#### **SVAN 971**

SVAN 971 is an extremely small Class 1 Sound Level Meter with options for 1/1 &1/3 octave analysis. The instrument brings unprecedented state of the art technology to a SLM of this size. The SVAN 971 provides broadband results with all required weighting filters plus 1/1 octave & 1/3 octave band filters. It also offers an incredible time band filters. It also offers an incredible time history logging (capability providing broadband results and spectra with adjustable double.

# SVAN 977D Class 1 Sound & Vibration Level Meter

The SV 977D is a Class 1 Sound and Vibration meter designed for building acoustics, occupational noise and environmental noise measurements. The meter is a successor of SVAN 977A offering new 1/2" microphone MK255 offering wide frequency range from 3 Hz and excellent long-time stability of sensitivity. The SV 977D has a built-in Bluetooth® interface for wireless connection with smart-phone applications like Building Acoustics Assistant that extends measurement capabilities dedicated for building acoustics. One unique feature of the SV 977D is ultrasound measurement band up to 40 kHz. The ultrasound band is normally considered as the frequency range above 20 kHz. Ultrasound is used in a number of industrial processes such as cleaning, drilling or welding as well as hospitals for medical procedures. The SV 977D can be also used as the vibration level meter – simply by connecting a cable and a vibration sensor.





## **SVAN 979**

SVAN 979 is the most advanced and powerful single channel instrument for general acoustic and vibration measurements ever made. SVAN 979 instrument is able to perform advanced measurement techniques like MLS, TDS etc. thanks to built-in sophisticated signal generator. These exceptional features make SVAN 979 the leading product for measurements in field (environmental monitoring). SVAN 979 is powered from standard or rechargeable AA batteries. The powering of the instrument from the External DC power source or USB interface is also provided.

#### **Noise Dosimeters**

#### SV 102+

SV 102+ Dual Channel Noise Dosimeter replaces our ground breaking SV 102. It has been designed for the accurate measurement of noise exposure to ISO 9612 and MIRE (microphone in real ear) measurements to ISO 11904-1.





#### SV 102A+

SV 102A+ Class 1 Dual Channel Dosimeter is presenting new approach to occupational health and safety acoustic monitoring task. This dosimeter can be also used as a dual- channel Class1 sound level meter and real- time 1/1 octave & 1/3 octave analyser.

# SV 33A, SV 34A, SV 35A Acoustic Calibrator

Class 1 and Class 2 Acoustic Calibrator produces an acoustic pressure of defined levels.





#### **SV 104**

The SV 104 is a dosimeter that meets the standards set by IEC 61252 and ANSI S1.25-1991. These noise dosimeters are used to monitor occupational noise exposure, which ranges from 55 dB to 140 dB. To measure how much noise someone is exposed to, the SV 104 can create three different profiles, each measuring a different standard, with configurable settings such as criterion level or an exchange rate.

#### **SV 104A**

The SV 104A is a new personal noise dosimeter with a Bluetooth® communication supported by the Smartphone application called Assistant. For measurements of noise at work in accordance to ISO 9612 as well as OSHA, MSHA and ACGIH standards all settings are configurable in the PC software and can be stored in the dosimeter memory as setup files selected directly from the dosimeter keyboard.



# SV 104BIS



The SV 104BIS is the newest version (2022) of an intrinsically safe noise dosimeter. Like its predecessor, the SV 104BIS is a cable-free dosimeter and is typically attached to the user's shoulder, close to the ear using the mounting clips supplied. Among the unique features of the new model, the software is automatic noise dose calculation, sound pressure level logging, audio recording, octave band frequency analysis, and autocalibration. The new ATEX dosimeter has an 8GB memory and fast data transfer via new docking stations. The new Bluetooth® interface enables previewing current results on a mobile app.

#### **Human Vibration Meter**

#### **SV 106A**

SV 106A Six-channel Human Vibration Meter and Analyser meets requirements of ISO 8041:2005 standard and it is an ideal choice for measurements according to ISO 2631-1,2&5, ISO 5349 and directive 2002/44/EC of European Parliament. This revolutionary, pocket-size instrument enables simultaneous measurements with two triaxial accelerometers (e.g. both-hands vibration or triaxial SEAT transmission measurements are possible).





#### **SV 103**

SV103 Personal Human Vibration Exposure meter is dedicated to hand-arm vibration measurements. The instrument meets ISO 8041:2005 and is the ideal choice for making measurements according to ISO 5349 and European Directive 2002/44/EC.

## **SV 100A**

The new SV100A is a wireless whole-body vibration exposure meter suitable for wholebody measurements in accordance with ISO 2631-1. Suitable for taking measurements both on the seat and seat-back, the device uses the very latest technology and is easy to use. The instrument is equipped with 4 push buttons and a small OLED display that allows basic configuration in the field. The wireless BT communication interface enables current results to be previewed on a smartphone or Android tablet using our Assistant application.



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## **Noise Monitoring**

#### **SV 307**

The SV 307 is a new Noise Monitoring Terminal (NMT) dedicated for permanent noise monitoring. The SV 307 integrates Class 1 sound level meter with a modem in the removable waterproof housing. The SV 307 is equipped with a new MEMS microphone with a life-time warranty. The measurement data is stored on the microSD card.

The SV 307 is designed for permanent noise monitoring, it has been equipped with a patented double self-system check: an inbuilt reference sound source producing 100dB at 1 kHz plus real-time check based on reference microphone.

The waterproof housing of SV307 can be removed to get an access to the user interface with a colour display and keypad. The SV 307 has an internal Li-Ion battery and interface for connecting solar panels. A waterproof mains adapter for charging the battery and powering the station is also included.

SvanNET cloud service monitors the wireless communication, powering and access to the SV 307 data. The scope of the basic SvanNET can be extended with multipoint project management that offers data storage in the cloud, data sharing, advanced alarming and reporting features. SvanNET is an on-line solution which means it doesn't require software installation and is accessible through a web browser. The responsive design enables use of SvanNET on various devices such as smartphones or tablets.





#### **SV 200A**

SV 200A Noise Monitoring Station is a fully integrated solution for unattended noise monitoring applications featuring an internal web server for system configuration, live data streaming, data management and battery powered operation providing true flexibility for both short and long term measurements.

#### **SV 271 LITE**

SV 271 LITE is an outdoor monitoring system based on type approved SVAN 971 Class 1 sound level meter. The IP 65-rated case contains a lead-acid battery which operating life can be easily extended by connecting an external battery or a solar panel. The intelligent charging unit enables use of a solar panel without expensive controllers or heavy batteries. The case is fitted with very robust, waterproof connectors (military standard) and is supplied with an IP 65 external power supply.





### **SV 277 PRO**

SV 277 PRO is an outdoor monitoring system based on SVAN 977 Class 1 sound level meter. The IP 65-rated case contains a lead-acid battery which operating time can be easily extended by connecting an external battery or a solar panel. The intelligent charging unit enables use of a solar panel without expensive controllers or heavy batteries.

#### **SV 279 PRO**

SV 279 PRO is an outdoor monitoring system based on SVAN 979 Class 1 sound level meter. The IP 65-rated case contains a lead-acid battery which operating time can be easily extended by connecting an external battery or solar panel. The intelligent charging unit enables use of a solar panel without expensive controllers and heavy batteries. The case is fitted with very robust, waterproof connectors (military standard) and is supplied with an IP 65 external power supply.





#### **SV 258 PRO**

SV 258 PRO is an outdoor monitoring system based on SVAN 958A Class 1 sound level meter. The portable and battery powered station can be used for a variety of monitoring applications including construction site monitoring, tunneling and blasting. The IP 65-rated case contains a lead-acid battery which operating time can be easily extended by connecting an external battery or small solar panel. The intelligent charging unit enables use of a solar panel without expensive controllers and heavy batteries.

### **SVAN 958A**

SVAN 958A Class 1 Four-channel Sound & Vibration Analyzer is dedicated for all applications that require simultaneous class 1 sound and vibration assessment. Each of four input channels can be independently configured for sound or vibration detection with different filters and RMS detector time constants giving users an enormous measurement flexibility. The real advantage of SVAN 958A is the capability to perform advanced analysis simultaneously to the level meter mode. In practice this allows the user to obtain broad-band results such as Leq, RMS, LMax, LMin, LPeak together with four-channel analysis like FFT or octave band analysis.



#### **Vibration Level Meter**



#### **SVAN 974**

SVAN 974 Vibration Level Meter and Analyser is intended for general vibration measurements and machinery condition monitoring. It can be used by consultants, maintenance services, industry R&D departments etc.

#### **SV 110**

The SV 110 is a hand-held vibration calibrator designed for verification of machine sensors as well on-site checks of human ลร vibration accelerometers in accordance to ISO 8041. The small size of SV 110 enables easy checks of sensors at the machines. Depending on the selected frequency user may select level of calibration from1 m/s2 to 10 m/s2. Accelerometers are conveniently attached using mounting stud, mounting disc or dedicated adapter. The calibrator menu provides selection between both metric systems 'g' and 'm/s2'. The menu is simply operated by three push-buttons and small OLED display.





# SV 111 Vibration Calibrator

SV 111 Vibration Calibrator is the State of the Art instrument designed for in-situ checks according to ISO 8041. In-situ checks are intended for application in the field prior to and following a measurement or series of measurements. They act as a check of the instrument's basic calibration and functionality.

# **MESALABS / BIOS**

#### Flow Meters

#### **Defender 510 & 520**

The Defender 510 is the base model of the Defender series. This model is primarily used for:

- Personal Sampling Pump Calibration
- Volumetric Flow Calibration

The Defender 520 - Enhanced Volumetric Primary Flow Standard is the intermediate model of the Defender Series. This model provides:

- Flow Calibration where you want to know Temperature/Pressure
- A more affordable option





#### Defender 530+

The Defender 530+ allows users to verify gas flow rates in the field or in the lab to a volumetric accuracy of .75% of reading, including temperature and pressure compensation. Unlike thermal mass flow meters, the Defender 530+'s positive displacement technology provides immediate indication of actual volumetric gas flow rate – accurately and independently of gas type. Integrated temperature and pressure sensors in the flow stream allow users to automatically standardize volumetric flow readings to standard conditions, for traceable verifications of mass flow devices.

## FlexCall Series

The FlexCal offers flow ranges up to 50 LPM with a standardized accuracy of 0.5%, but is small, easy to carry and ready for even the most demanding of applications. When you use Mesa Labs' FlexCal, you are guaranteed high accuracy with high confidence without the use of soap bubbles, timers, or heavy provers.





# PortaCount Pro Respirator Fit Tester 8030

The PortaCount Pro Respirator Fit Tester 8030 eliminates the guesswork associated with tedious and error-prone qualitative fit test methods. No other respirator fit tester can quantitatively fit test so many types of respirators - gas masks, SCBAs, respirators, even disposables (for fit testing N95, P1 & P2 disposable respirators, see the PortaCount Pro+ Respirator Fit Tester). If the mask requires it testing, count on the PortaCount Pro fit tester to provide the fastest and easiest HSE (UK) and OSHA (US)-compliant.

# PortaCount Pro Respirator Fit Tester 8038

The Portacount Pro Respirator Fit Tester 8038 can quantitatively fit test all types of respirators-gas masks, SCBAs, respirators, even N95, P1 and P2 disposable (filtering-facepiece) respirators. The PortaCount® Pro+ Respirator Fit Tester 8038 eliminates the guesswork associated with tedious and error-prone qualitative fit test methods. If the mask requires fit testing, count on the PortaCount Pro+ Fit Tester to provide the fastest, easiest and best HSE (UK) and OSHA (US)-compliant fit test method.



### **New PortaCount®**

# Respirator Fit Tester 8040 / 8048

Features intelligent touchscreen solutions, supporting respiratory protection programs from training through compliance. TSI® has redesigned every aspect of the PortaCount Fit Tester's FitPro™ Ultra software. An all new user interface and industry-first features combine to create the most powerful fit test instrument available. From touchscreen tablets to PC laptops, the software is easy to use and similar to applications on your own personal devices.

#### **DustTrak Aerosol Monitor Series**

The DustTrak™ II Aerosol Monitor 8530 is a desktop battery-operated, data-logging, light-scattering laser photometer that gives you real-time aerosol mass readings. It uses a sheath air system that isolates the aerosol in the optics chamber to keep the optics clean for improved reliability and low maintenance.

DustTrak™ DRX Aerosol Monitor 8533 can simultaneously measure both mass and size fraction no other monitor can do both. The DustTrak DRX desktop monitor is a battery operated, data-logging, light-scattering laser photometers that gives you real-time aerosol mass readings. It uses a sheath air system that isolates the aerosol in the optics chamber to keep the optics clean for improved reliability and low maintenance.



# **DustTrak Aerosol Handheld Monitor Series**

The DustTrak™ II Aerosol Monitor 8532 is a handheld battery-operated, data-logging, light-scattering laser photometer that gives you real-time aerosol mass readings. It uses a sheath air system that isolates the aerosol in the optics chamber to keep the optics clean for improved reliability and low maintenance.



# The DustTrak DRX Model 8533EP and 8530EP

The DustTrak DRX Model 8533EP and 8530EP ARE outfitted with an external pump module that is designed to handle the rigors of continuous 24/7/365 monitoring applications such as construction sites and fugitive emissions monitoring at environmental





# SidePak™ Personal Aerosol Monitor

AM520 is a small, portable, battery-operated, data-logging, light-scattering laser photometer that provides real-time aerosol mass concentration readings of dusts, fumes, mists, smoke and fog within a worker breathing zone. Newly designed inlet conditioners increase the mass concentration capability and provide size fraction cut points for PM 10, PM 4 (Respirable), PM 5 (China Respirable), PM 2.5, PM 1 and 0.8 µm Diesel Particulate Matter (DPM). This monitor is the perfect solution for real-time, personal aerosol sampling in a variety of workplace environments, including but not limited to general industry, foundries, construction sites, chemical plants, refineries, petrochemical, power and utilities, transportation, aerospace, maritime, confined spaces and mining.

# TSI Model 4146 and 4046 Primary Calibrators

These portable, battery-operated units are lightweight and easy to use. Volumetric flow rate is displayed continuously so adjustments to pump flow can be made in real-time. These primary calibrators are accurate to +/- 2 % of reading.





### **Environmental DustTrak™**

DustTrak™ environmental monitors to TSI's measure aerosol concentrations. environmental monitors measure fractions of particles and ultrafine particles. They capture PM1, PM2.5, Respirable PM4, PM10, and Total PM. Environmental monitors help identify risks to communities and workers from breathable particles. With hard data on air quality and visibility, organizations can meet health and safety standards.

## **Indoor Air Quality Meters**

TSI IAQ-Calc™ Meters are outstanding instruments for investigating and monitoring indoor air quality (IAQ). Model 7515 is a costeffective meter for carbon dioxide (CO2) measurements. Models 7525 and 7545 simultaneously measure and data log multiple parameters. Model 7525 measures CO2, temperature, humidity, and calculates dew point, wet bulb temperature, and percentage outside air. Model 7545 adds detection of carbon monoxide (CO).





# **AirAssure PM2.5 Indoor Air Quality Monitor**

The AirAssure™ PM2.5 Indoor Air Quality (IAQ) Monitor can provide real-time, reliably accurate measurement of indoor PM2.5 dust concentrations, one of the greatest health risks in the world today.

The AirAssure Monitor is the ONLY cost effective on-the-wall instrument to meet the needs of ALL the stakeholders in a building.

## **AirPro®**

AirPro® Instruments are revolutionary wireless velocity and pressure measurement solutions that maximize productivity by offering easier measurement access, unmatched accuracy, seamless multi-data reporting, and a user-friendly interface for fast, intuitive operation. They provide superior service through license and probe management, extended service contracts, and advanced probe replacements that eliminate downtime.





# TSI Panda Duct Accreditation System

The TSI Positive and Negative Duct Accreditation (PANDA) System, PAN200 Series, is designed to provide fast, accurate duct leakage detection, as well as duct performance measurements. Packaged with the TSI VelociCalc® 9565-P and DP-Calc Micromanometer 5825, the PAN200 series offers real-time leakage rate calculations, monitors barometric pressure and temperature, generates a Pass/Fail result, and simplifies report generation and documentation by downloading stored data. This positive and negative duct accreditation system can also print out leakage test results when coupled with a Model 8934 Portable Printer.

#### **ABT Balometer®**

ABT Balometer® Capture Hood over a diffuser or grille, you can measure air volume in order to balance buildings and verify air flow distribution. The easily observed trend values and fast meter response make Alnor Balometer Capture Hoods preferred instruments for facility engineers.





# TSI Hydronic Manometers HM675 and HM685

TSI Hydronic Manometers HM675 and HM685 are used to balance hydronic heating and cooling systems, check pump performance and to set balancing valves. Both models can measure and display differential, high side, and low side pressures simultaneously, without the need to change hose connections or instrument valve settings.

## **VelociCalc® Velocity Meter**

VelociCalc® Air Velocity Meters measure air velocity and temperature, calculate flow rate and perform statistical calculations. Some models also measure humidity, and perform dew point and wet bulb temperature calculations.





#### **TSI DP-Calc Micromanometers**

The TSI DP-Calc™ Micromanometers measures static, total and velocity pressures as well as pressure drops across filters, coils, fans and diffusers. Each model of the DP-Calc combines a lightweight and durable design with an easy- to-read display. Advanced models feature volumetric flow rate, temperature, humidity and data logging.

## **TSI Air Velocity Transducers**

TSI Air Velocity Transducers are ideal for both temporary and permanent installations for air velocity measurements in research and development labs, manufacturing processes, and other applications. The full–scale range, signal output, and time constant are user Selectable and can be easily changed to meet the needs of your application.



#### **Gas Detectors**

#### **G888 Gas Detector**

The Microtector III G888 is the smallest and lightest 4-7-Gas Detection Device with wireless module. Depending on which sensors it is equipped with, this gas detector warns users of hazards due to toxic, flammable gases and vapours, as well as against a lack of oxygen or excess oxygen. Due to individual sensor combinations and a wide range of accessories the G888 is suitable for every set of requirements.



#### **G999 Gas Detector**

The G999 is worldwide the smallest and most light-weighted 4-7 gas measurement device with an integrated electrical suction pump and a radio module. Depending on the sensor equipment, the device will warn against risks caused by toxic as well as flammable gases and vapours and against lack and excess of oxygen. By individual sensor combinations and a comprehensive accessory, the G999 will satisfy any profile of requirements.





#### G-460 Gas Detector

GfG's intrinsically safe G460 is a rugged, compact instrument for simultaneous detection of up to 6 gases. Installed sensor options include infrared (NDIR) for CO2 and PID for VOC measurements. A full 3-year warranty is provided on most commonly used sensors, which reduces the cost of ownership over the lifetime of the instrument. The G460 offers completely automatic calibration, one-button operation, top mounted display and interchangeable battery packs for up to 25 hours of continuous operation. The rechargeable NiMH battery pack can even be equipped with optional "flash light" LEDs.

#### G-450 Gas Detector

The G450 Gas Detector from GFG Instrumentation offers exceptional performance for an extremely affordable price. The G450 four sensor multi-gas detector is compact, durable and very easy-to-use. The H2S sensor offers 0.1 ppm resolution to comply with the latest TLV® requirements. G450 sensors are warranted for 3 full years, ensuring that the G450 has the lowest cost-of-ownership of any confined space gas detector on the market today. Replacement sensors carry the same 3 year warranty as the original sensors.





#### **GFG Micro IV Gas Detector**

GFG Instrumentation presents the Micro IV full featured single-gas detector. Lightweight (2-4 ounces), up to six months of battery life from a single off the shelf AA alkaline battery and a heavy duty alligator clip that allows the detector to be conveniently clipped on to clothing and it has so much capability packed into it. The Micro IV has a large backlit graphic display with real-time readout, programmable ceiling (3), STEL and TWA alarms.

# CI 21 Fixed Gas Transmitter

The Charge Carrier Injection (CI 21) from GFG Instrumentation is a low-maintenance transmitter for ammonia gas detection that features a stable, long-life charge-carrier injection sensor. Ideal for the refrigeration markets, the sensor is unaffected by high-concentration exposure and boasts low-temperature operation to -40° F.





### **ZD 21 Fixed Gas Transmitter**

The ZD 21 is an "intelligent" transmitter. The comprehensive electronics allow for easy operation and maintenance and also increase operational safety and accuracy. In less than two seconds the ZD 21 responds to an oxygen deficiency. This extremely short response time allows the time to take measures to prevent considerable damage.

## **CC 22 Fixed Gas Transmitter**

The CC 22 works according to the heat of reaction principle, a proven method for measuring combustible gases. The transmitters are fitted with high-performance electronics for voltage stabilization, processing of readings, and temperature compensation. Follow-up costs are minimized thanks to the long lifespan of the sensors.



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# GMA 200 Series Gas Transmitter Control Panels

GMA 200-MT module can control up to 16 individual gas transmitters (sensors). GMA 200-MT systems are scalable, and easy to expand by adding additional controller and relay modules. The 200-MT include GMA systems comprehensive and fully programmable relays. Each controller is equipped with 8 internal relays. Each GMA 200-RT relay module provides an additional 16 freely configurable relays. A total of four additional relay modules (for 64 additional relays) can be managed by the same GMA 200-MT system roller and relay modules. Optional gateway modules allow control via remote or touchscreen computer interface.

## GMA 200-MGSS Controller

The GMA 200-MGSS offers a wide range of flexibility and adjusts to your requirements. Due to the modular structure additional components can be added to the base version to perform measurement tasks.





#### **GMA 200-MW Controller**

GFG Instrumentation introduces the new GMA 200-MW Fixed Gas Monitoring Controller. A variety of transmitters can be connected to it for measurement of combustible, toxic gases/vapors and oxygen. The design of the GMA 200 series is flexible, reliable and economic.

Up to 16 detectors can be connected to the GMA 200-MW controller. The quick and easy configuration of the measuring point designations, the detector type, the type of gas and measuring range as well as three individual or specified alarm thresholds can be programmed for each measuring point using the configuration software through a USB port. The configuration software offers numerous and flexible options.

# TISCH ENVIRONMENTAL

#### Tisch HI-VOL Air Samplers

High volume air samplers are used for the collection of airborne particulate matter in ambient air. They are available for the collection of Total Suspended particulates (TSP), particulate matter with an aerodynamic diameter of less than  $10\mu m$  (PM10), particulate matter with an aerodynamic diameter of less than  $2.5\mu m$  (PM2.5), and semi-volatile organic compounds and pesticides (PUF).





# X-Calibrator High Volume Calibrator

Calibration is crucial for ensuring that your sampling equipment is collecting data accurately. Tisch Environmental's line of calibration equipment is designed to provide accurate and reliable results. These devices are certified in our NIST traceable lab and manufactured out of high quality materials to ensure that your sampling equipment is operating efficiently and accurately.

#### **Tisch Wilbur**

The Tisch Environmental TE-Wilbur is the most advanced low volume air sampler system in the industry. The TE-Wilbur can be configured for TSP, PM10, PM2.5, PM1 as well as any other particulate separation device with a flow rate 1-25 SLPM. Featuring between modern, industrially hardened components paired with innovative design and state of the art manufacturing practices, the TE-Wilbur is the future of particulate collection. The TE-Wilbur is ideal for Environmental Monitoring, Fence Line Monitoring and Industrial Monitoring. The TE-Wilbur is designed to operate in any environment and is set up for quick and easy deployment. The TE-Wilbur exceeds all performance specifications set forth by the USEPA for low-volume particulate collection.



## TISCH ENVIRONMENTAL



# **Environmental Cotton Dust Sampler**

The Tisch Environmental cotton dust sampler is used for the detection of human exposure to cotton dust. The design of the vertical elutriator allows lighter particles to travel through the cylinder to the filter where heavier particulates will fall out. The sample flow rate of 7.4 lpm to ensure that only the lighter particulates travel through the air stream. Cotton dust particulates range in size from particulates that are visible to the naked eye to particulates that are submicron in size. It is these submicron particles that the TE-4000 sampler is designed to collect.

# Non-Viable and Viable Impactors

Tisch Environmental offers impactors for particulate separation of ambient viable and non-viable particulates for respirable and pharmaceutical studies. Constructed of precision machined high quality aluminum these devices are reliable, accurate, and cost effective.





## **Acid Precipitation Sampler**

The TE-78-100 is an Atmospheric Precipitation Sampler or Acid Precipitation Sampler(APS). The system is designed to collect both total precipitation and total particulate deposition for later laboratory analysis of pH, conductivity and speciation. The APS is constructed of heavy gage powder coated aluminum with two 3.5 gallon collection buckets. The buckets share a common gabled roof cover that moves between buckets during the wet/dry periods.

# **ECOM**

#### Flue Gas Analyzers

#### **ECOM-CL2**

Flue Gas Analyser for Heating Applications

- Super compact
- Long-life sensors
- Automatic CO switch-off with fresh air purge
- Robust (protection) housing made of aluminum
- Condensate trap with electronic monitoring
- Integral thermal quick-printer





#### **ECOM-B**

- Flue Gas Analyser
- Long-life sensors
- High value battery (long operation time)
- CO sensor overload protection
- Aluminum housing (ultralight)
- Perfect value for money ratio

#### **ECOM-EN3-R**

- Flue Gas Analyser with Integral Soot Measurement
- Compact, accurate, robust, safe, efficient, versatile, full equipment
- Integral soot measurement: perfect for oil-fired heating plants
- Long-life sensors
- CO sensor overexposure protection without measurement interruption
- Electronic condensate monitoring
- Low-maintenance, high-performance pump
- Powerful Lithium-Ion battery
- TFT colour display and backlit keypad
- Aluminum housing (ultra-light) and aluminumframed transport case



## **ECOM**



#### **ECOM-EN3**

**Compact Measurement Instrument:** 

- Probe, sampling tubing, printer, transport case with carrying strap
- Long-life sensors
- CO sensor overload protection without measurement interruption
- Electronic condensate monitoring
- Low-maintenance, high-performance pump
- TFT color display and backlit keypad
- Powerful Lithium-Ion battery

#### **ECOM-D**

Hand-held Flue Gas Analyser for Industrial Apps:

- Hand-held instrument with gas cooler option
- For perfect NOx/SO2 measurements
- Up to 6 sensor options (long-life sensors)
- Direct measurement of CO2 via IR sensor possible
- Measurement of hydrocarbons via IR sensor possible
- CO sensor overload protection without measurement interruption
- Electronic condensation monitoring
- Backlit display and keypad
- Aluminium housing (ultra-light)





#### **ECOM-EN3-F**

Flue gas analyser for industrial applications

- Compact analyser with sampler gas cooler
- For perfect NOx / SO2- measurements
- Up to 6 sensor options (Long-life sensors)
- Possible CO2- direct measurement via IR sensor possible
- Hydrocarbons measurement via IR sensor possible
- CO sensor overload protection without measurement
- Electronic condensate monitoring
- TFT colour display and backlit keypad
- Aluminium housing, fitted in hardtop transport case

## **ECOM**

#### **ECOM-J2KN** pro

Performing Flue Gas Analyzer with Remote Control Module via Radio.

- · Radio remote controller with high functionality
- Up to 150 meters stable coverage
- Gas cooler for perfect NOx/SO2 measurement
- Robust aluminum housing fitted in alu-framed transport case
- Up to 6 sensor options (Long-life sensors)
- High-performing measuring gas pump (2.6 liters/minute)
- CO sensor exceeding protection without measurement interruption
- Multi-step sample gas filtering
- Electronic condensate monitoring
- Integral soot measurement
- Instrument inner heating
- Backlit display and keypad





#### **ECOM-J2KNpro Industry**

Flue Gas Analyser for Industrial Measurements

- Radio remote controller with high functionality
- Gas cooler made out of stainless steel
- Robust aluminum housing fitted in aluminumframed transport case
- More than 8 gases measurable (Long-life sensors + NDIR)
- Additional infrared measurement of up to 3 gases possible
- Heated sampling system connectable
- CO sensor overload protection without measurement interruption
- Multi-level gas filtering
- Electronic condensate monitoring

#### **ECOM-J2KNpro TECH**

Mobile Flue Gas Analysis - combination of 5 Measurement Methods

- Emission analysis in challenging environments
- Free combination of the measurement methods, for each application Operation with far-reaching radio remote control
- Easy transportation in stable aluminium-framed case
- Short controls or continuous measurements everything integrated in one and the same system



# **MESALABS / BGI**



#### PQ 200 FRM PM Sampler

The BGI PQ200 FRM Sampler uses BGI pioneering technology to meet and exceed the requirements for ambient particulate sampling dictated by the U.S Environmental Protection Agency. This includes the design of reliable PM10, PM2.5 and PM1 Inlets, volumetric sample flow rate control, data logging and software for report and data processing.

- Portable sampler for TSP, PM10, PM2.5, PM Coarse, and PM1
- EPA Reference Method for PM10 sampling (Designation No. RFPS-1298-125)
- EPA PM2.5 Reference Method sampler (Designation No. RFPS-0498-116)
- EPA PM Coarse approved sampler

## PQ 100 FRM PM Sampler

The BGI PQ100 FRM Sampler incorporates BGI pioneering technology to meet the requirements for ambient particulate sampling dictated by the U.S. Environmental Protection Agency. This includes the design of PM10, PM2.5 and PM1 Inlets, volumetric sample flow rate control, data logging and software for report and data processing.

•Ambient PM10 Monitoring





## **OMNITM FT Ambient Air Sampler**

- MiniPM™ Multi-cut Inlet, for TSP, PM10, PM2.5, PM1 and PM4
- Inlet is verified by Health and Safety Executive (HSE) air sampling standards for entry bias ensuring reference method data quality
- Light weight and field portable (< 5 lbs.)</li>
- Power: AC, DC and solar
- Runs for up to 48 hours on internal DC battery
- Default configuration is Pm10

# **MESALABS/BGI**

#### **Flow Meters**

#### **TetraCal®**

The BGI tetraCal® is a simple-to-use, NIST Traceable Standard for volumetric air flow, barometric pressure, and ambient temperature. The tetraCal is a venturi based system with built-in compensation for changes in ambient temperature and pressure. All tetraCal systems are built and tested at Mesa which is both a NIST traceable Calibration Laboratory and an ISO 17025 facility





## **DeltaCal®**

The BGI deltaCal® is a simple-to-use, NIST Traceable Standard for volumetric air flow, barometric pressure, and ambient temperature. The deltaCal is a venturi based system with built-in compensation for changes in ambient temperature and pressure. All deltaCal systems are built and tested at Mesa which is both a NIST traceable Calibration Laboratory and an ISO 17025 facility.

#### **HiVol Cal**

The BGI High-Volume Calibrator (HiVol Cal) is a simple-to-use, NIST Traceable Standard for volumetric air flow, barometric pressure, and ambient temperature. The HiVol Cal is a venturi based system with built-in compensation for changes in ambient temperature and pressure. All HiVol Cal systems are built and tested at Mesa which is both a NIST traceable Calibration Laboratory and an ISO 17025 facility.



# **MESALABS/BGI**



#### **Personal Sampling Cyclones**

- Particle Size Cut PM0.8 at 2.21 LPM
- Particle Size Cut PM4 at 2.2 LPM
- Particle Size Cut PM1 / PM2.5 / PM4 at 3.5 LPM /
- 1.5 LPM / 1.05 LPM
- Particle Size Cut PM2.5 at 4 LPM / 3.5 LPM (SH Model)
- Particle Size Cut PM4 at 8.5 9 LPM

#### **Environmental Cyclones**

- VSCC Particle Size Cut PM2.5 at 16.67 LPM
- SCC Particle Size Cut PM2.5 at 16.67 LPM
- Particle Size Cut PM1 at 16.67 LPM
- Particle Size Cut PM1 and PM2.5 at 2-10 LPM





#### **The Mesa Personal Impactor**

The Mesa Personal Impactor is a development of the Environmental Science and Engineering Group at the Harvard School of Public Health. It is a group of four impactors designed to be worn on the person in order to closely gauge their exposure to PM10 PM4 or PM2.5 concentrations at two different flow rates. This design eliminates the bias found when particles impact dry surfaces.

# **ION SCIENCE**

#### **Tiger Handheld VOC Detector**

The Tiger handheld VOC detector is a revolutionary handheld gas detection instrument for the rapid, accurate detection of volatile organic compounds (VOCs) within the harshest of environments.

Tiger incorporates Ion Science patented photoionisation detection (PID) sensor technology with humidity resistance and anti-contamination design, proven to dramatically extend run time in the field.

A robust VOC detector Tiger provides a dynamic detection range of 0 to 20,000 parts per million (ppm) with a minimum sensitivity of 0.001ppm (1 ppb), offering





## **Tiger LT VOC Detector**

TIGERLT is an entry-level handheld VOC detector that provides fast, accurate, reliable results, however challenging your environment.

This variant of the hugely popular Tiger VOC detector is low on cost but high on performance. Its revolutionary, patented photoionization detection (PID) sensor technology with humidity resistance and anti-contamination design provide market leading accuracy and run-time.

Combined with 24-hour battery life, its features maximise field time by minimising inaccurate readings in high humidity and drift in harsh environments.

# Tiger Select Handheld Benzene Detector

The Tiger Select is a revolutionary hand-held gas detector for the rapid, accurate detection of benzene and Total Aromatic Compounds (TACs). Utilizing the high output Ion Science 10.0 eV detection system, a reading for TACs is seen immediately on start-up. Should aromatics be detected, an ION Science benzene pre-filter tube can be easily attached to ensure fast detection and selective measurement of benzene.



## **ION SCIENCE**



#### **Cub Personal VOC Detector**

Cub is a personal VOC detector with photoionization detection (PID) technology for the fast, accurate detection of volatile organic compounds, keeping you safe within your working environment.

With market leading parts-per-billion (ppb) sensitivity, Cub sets the standard in personal gas monitoring giving an early warning of exposure to hazardous gases.

Comfortable and unobtrusive to wear, Cub sits within the breathing zone and is the smallest, lightest, personal VOC detector available. Cub has a dynamic range of 0 to 5000 ppm – the widest on the market – measuring

#### **CubTAC** personal Benzene detector

CubTAC is a personal benzene detector for the fast, accurate detection of total aromatic compounds (TACs), including benzene, keeping you safe within your working environment. Comfortable and unobtrusive to wear, CubTAC is the smallest, lightest, personal TAC and benzene detector available.

CubTAC has a dynamic range of 0 to 5000 parts per million (ppm), with its market leading ppb sensitivity, CubTAC comes with all the benefits of the Cub personal VOC detector but has a 10.0 eV lamp utilising a unique light filtering technology to give a reliable aromatic hydrocarbon concentration.





#### **FALCO**

Falco is the latest generation of fixed VOC detectors that continuously detect a wide range of volatile organic compounds (VOCs) using patented photoionization detection (PID) technology.

Unique to this fixed VOC detector is its revolutionary 'typhoon technology' s safeguarding the PID sensor from condensing moisture for added reliability in severe weather conditions. In addition, the PID sensor incorporates patented Fence Electrode Technology, which virtually removes the effects

## **ION SCIENCE**

#### **Titan Fixed Benzene Monitor**

Titan is the first truly selective fixed benzene monitor on the market. Titan is a fixed, continuous, real-time, benzene-specific monitor designed for petrochemical environments, providing the ultimate device for plant and worker safety.

The instrument is wall-mounted with a dynamic detection range or 0-20 ppm with 0.1 ppm sensitivity to benzene. Titan samples gas from the environment once per minute and within just 60 seconds an accurate benzene measurement is displayed.





## **MVI (Mercury Vapour Indicator)**

The Mercury Vapor Indicator (MVI) is a revolutionary mercury detector, detecting mercury vapors in just 3 seconds!

The instrument's dual beam UV absorption technology means MVI does not saturate or need regenerating between readings – like traditional gold film detection methods – eliminating instrument downtime.

Fast and accurate, the MVI mercury detector gives a real-time response and is ready to detect instantly. MVI provides continuous readings and offers two detection ranges: 0.1 to 200 and 1.0 to 1999 microgram/cubic meter.

#### **GasCheck G Leak Detector**

The GasCheck G gas leak detector represents the latest in gas detection technology. Its advanced system of micro thermal conductivity enables advanced sensitivity for the rapid, effective detection of gas leaks down to cc/sec, mg/m³ or ppm levels. Designed for the search and location of gas leaks, the GasCheck G leak detector provides you with effective detection of almost any gas or gas mixture. Robust and reliable, the GasCheck G leak detector gives stable, repeatable readings of the detected gas.



# SE INTERNATIONAL

#### **Radiation Detectors**



#### Ranger

The Ranger offers maximum performance in a lightweight, rugged solution for surveying at the facility or in the field. The Ranger has been designed for industrial environments, but it still has all of the features you've come to love in the lab. The Ranger is a small, handheld, digital instrument which offers excellent sensitivity to low levels of alpha, beta, gamma, and x-rays. It has built in efficiencies for common isotopes to calculate activity in Bg and DPM. It has a backlit digital display, a red count light, and a beeper that sounds with each count detected. Other features include selectable alert levels, an adjustable timer, and an optional wipe test plate for swipes. Internal memory and the free Observer USB Software allow you to download your data, and set computer alarms

#### Ranger EXP

The Ranger EXP offers maximum performance in a lightweight, rugged solution for using your survey meter in the field. The Ranger EXP is designed specifically for individuals operating in tough environments. The small, handheld unit offers excellent sensitivity to low levels of alpha, beta, gamma, and x-rays. The digital readout is displayed with a red count light and a beeper sounds with each count detected. Other features include an adjustable timer, selectable alert, and with the free Observer USB Software Family, you can download your collected data, and set alarms!





#### **Monitor 200**

The Monitor 200 measures alpha, beta, gamma, and x-rays. Its digital display shows readings in your choice of CPM, CPS,  $\mu$ Sv/hr, mR/hr, or in accumulated counts. It has a digital display, a red count light, and a beeper that sounds with each count detected. Other features include an adjustable timer, and selectable alert. With the free Observer USB Software Family, you can set computer alarms, and download your collected data from the internal memory for easy reporting!

## **SE INTERNATIONAL**

#### **RADOS RAD -60 Dosimeter**

The RADOS RAD-60 Personal Alarm Dosimeter is a precise and reliable instrument for ensuring the personal safety of the user. Ideally, the RAD-60 is used in everyday radiation monitoring, in stand-alone conditions. If your needs grow for a more sophisticated system, the versatile RAD-60 can also be integrated into an Access Control System. The RAD-60 can be switched into System Mode, for the purpose of tracking Personnel Dose records and generating compliance reports.





# Sentry EC Personal Dosimeter & Ratemeter

The Radiation Alert® Sentry EC is a Personal Alarming Dosimeter / Ratemeter designed to ensure the safety of personnel that work in occupations with potential x-ray or gamma exposure. The pocket sized unit has an energy compensated tube for a linear response to gamma and built in memory for recording data points for tracking accumulated exposure. The SentryCom Software option enables you to generate incident reconstruction for analysis. The software also permits you to easily set the vibrating and audio alert to your desired levels for dose (>1.0 mR/10 μSv/hr).

## GammaPAL – Portable Radiation Analysis Laboratory

The GammaPAL is your all-in-one sampling kit for radiation safety, the ideal instrument for detecting contamination in food, soil, and water. A portable laboratory containing all the items you need for sampling in the field or from a stationary base of operations. The GammaPAL is a complete measuring system for analyzing radiation contamination in milk, meat, fish, grain, fruit, and vegetables, as well as in air swipes, soil samples, and other materials.



## **SE INTERNATIONAL**



# **URSA-II – Universal Radiation Spectrum Analyzer**

The URSA II, with a full-featured MCA program, can be used with practically any radiation detector and can extract any data your detector can supply! It has been designed taking into account comments and requests from our current URSA customers. URSA-II MCA, the all-new fully, quantitative Windows™ based URSA-II software package has been designed for ease of use in a 32-bit Windows™ environment. Software also includes URSA-II for PPC software to run the URSA-II using a Windows Mobile™ Device (Jornada, iPAQ, TDS Recon, etc.) running WindowsCE™ or Windows Mobile™. The Software can be installed on as many computers as you like, with no restrictions and includes free software updates.

#### M4/M4 EC Analog Radiation Detector

The M4 or M4EC are both compact, ergonomic, general purpose survey meters capable of detecting alpha, beta, gamma, and x-rays over 3 selectable ranges. A red count light flashes and a beep sounds with each event detected. The Monitor 4EC offers a more linear reading for gamma and x-rays (above 40 keV).





#### Frisker

The Radiation Alert® Frisker . A light weight, single-handed radiation contamination instrument that has been designed to meet the demands of today's radiation personnel for leak testing, surface monitoring, sample screening, and personnel screening. By integrating the latest electronics with a proven and dependable Geiger-Mueller detector, S.E. International has created a rugged, ergonomic tool that addresses a number of radiological applications. The Radiation Frisker detects alpha, beta, and gamma with an assortment of units of measure, customizable alarm levels, and a backlit display.

# **HAGNER**

#### Luxmeter

#### EC1/EC1-X

The Hagner Digital Luxmeter is a small, handy and extremely easy-to-use instrument for accurate measurement of illuminance over a range of 0.1-200,000 lux. With both automatic zeroing and on/off switch, the only controls needed are a four-position range selection switch and a hold button for retaining the display value. Available The Hagner EC1-X Digital Luxmeter has the same features as the EC1 above but instead of being built-in, the detector is connected to the instrument by a 2 meter flexible lead.



# MANUAL MA

#### TP200 / TP200-X

The Hagner TP200 & TP200-X Digital Photometers have the same features as the models EC1 & EC1-X above but with the addition that the reading can be switched between metric (lux) and imperial (footcandle) units. The measuring ranges are thus 0.1 - 200,000 lux and 0.01- 20,000 fc.

#### **E4-X**

The Hagner E4-X Digital Luxmeter is a precision instrument for measuring illuminance over a range of 0.01 - 200,000 lux, in the field as well as in the laboratory. The full range of Hagner Special Detectors and the Light Intensity Adaptor SA-1 can be used with the E4-X. External instruments can be connected to its



## **HAGNER**



#### **EC1 UV-A Radiometer**

The Hagner EC1 UV-A Digital Radiometer is a small, handy & easy-to-use instrument for measurement of UV-A radiation (315 - 380 nm) over a range of 0.001-2,000 W/m². With both automatic zeroing and on/off switch, the only controls needed are a four-position range selection switch and a hold button for retaining the display value.

The Hagner EC1-X UV-A Digital Radiometer has the same features as the EC1 UV-A above but instead of being built-in, the detector is connected to the instrument by a 2 meter flexible lead.

#### **EC1-X UV-B Radiometer**

The Hagner EC1-X UV-B Digital Radiometer is of the same type as EC1-X UV-A but measures UV-B radiation (265 - 370 nm) over a range of 0.001 - 2,000 W/m². NB: In order to cover the important wave length 310 nm, the detector also has a sensitivity in the UV-A range.





#### **EC1-X UV-C Radiometer**

The Hagner EC1-X UV-C Digital Radiometer is of the same type as EC1-X UV-A above but measures UV-C radiation at 253.7 nm over a range of 0.001 - 2,000 W/m<sup>2</sup>.

#### **Online Chromatographs**

#### AirmoVOC C2-C6

AirmoVOC C2-C6 is an online chromatograph for continuous analysis of light hydrocarbons in the range of 2 to 6 carbons such as for example of ethane to Benzene by the principle of detection FID (Flame Ionization Detector) using hydrogen as carrier gas for measure concentrations ppm and ppt. Ideal for environmental applications such as pollution control, VOC monitoring, Ozone precursor monitoring, monitoring stations for photochemical evaluation (PAMS), process emissions or indoor measurements.





#### AirmoVOC C6-12

AirmoVOC C6-12 is an online chromatograph for continuous analysis of heavy hydrocarbons in the range of 6 to 12 carbons such as Hexane to Dodecane by the principle of detection FID (Flame Ionization Detector) using hydrogen as carrier gas for measure concentrations at ppb and ppt. Ideal for environmental applications such as pollution control, VOC monitoring, BTEX monitoring, Ozone precursor monitoring, Monitoring stations for photochemical evaluation (PAMS), TO14, process emissions or indoor measurements.

#### **AirmoVOC BTEX**

AirmoVOC BTEX is an online chromatograph for continuous analysis of BTEX (Benzene, Toluene, Ethylbenzene, Xylene) by use of the FID detection principle (Flame Ionization Detector) using as hydrogen as carrier gas for measure concentrations at ppb and ppt in air, soil or Water. Ideal for monitoring BTEX at an environmental level, such as industrial emission assessment, industrial safety and health, quality control in processes, among others.





#### **AirToxic**

AirToxic is an online chromatograph for the continuous analysis of BTEX (Benzene, Toluene, Ethylbenzene, Xylene) by use of the PID detection principle (photoionization detector) using nitrogen as carrier gas for measure at ppb and ppt concentrations in air, soil or water. Ideal BTEX analysis for up to 8 compounds for monitoring in urban and non-urban areas, defense perimeters in refineries, indoor and outdoor air control, industrial hygiene, among others.

# AirmOzone Ozone precursors (PAMS 56) and Toxics Monitoring

AirmOzone is a Monitoring System for on-line and continuous analysis of up to 88 compounds known as ozone precursors listed in US EPA PAMS 56, TO14 and TO15 environmental guidelines with high precision using gas chromatography techniques using the FID detection principle. Ideal for monitoring ozone precursors, analysis and modeling of tropospheric ozone, environmental research, environmental monitoring among others. Fully automated modular system for detection of up to 88 compounds by combining two analysis modules using the FID principle to have continuous analysis in the field at ppb levels.





## AirmoSCAN Xpert Automatic Gas Analyzer for Volatile PAH Compounds and VOCs Monitoring

AlrmoSCAN Xpert is a Monitoring system for online and continuous analysis of up to 123 compounds with high precision using gas chromatography techniques using FID modular detection principles and mass spectrophotometry. Ideal for measurement and monitoring of hydrocarbons, halogenated compounds, ozone precursors, VOC's, aromatics, PAH, Solvent, among others. Fully automated modular system for detection of up to 123 compounds combining different measurement techniques, air generators, nitrogen generators and other components to have continuous analysis in the field at ppb levels.

# ChromaFID: Volatile Organic Compounds (VOC) analyzer

ChromaFID is an online chromatograph for continuous analysis of light organic compounds, BTEX and VOC's in general by use of the FID (Flame Ionization Detector) detection principle, using hydrogen as carrier gas for measurement in ppm and ppb concentrations. Ideal for indoor monitoring at occupational health and safety level, monitoring of emissions, environment and processes among others. Detection of organic compounds C2-C6, Aldehydes, chlorinated vinyls, BTEX, chlorinated solvents among others.





# **ChromaTHC: Total HydroCarbons analysis**

ChromaTHC is an online chromatograph for continuous analysis of total methane and non-methane hydrocarbons using the FID detection principle (Flame Ionization Detector) using hydrogen / air as carrier gas for measurement in ppm concentrations. Ideal for monitoring total hydrocarbons, gas impurities, emissions monitoring or VOC monitoring. Detection of methane and non-methane compounds with calculation of total hydrocarbons with 20 ppb detection limit and 20-2000 ppb detection range.

# ChromaS: H2S, COS, CS2, SO2, RSH

ChromaS is an online chromatograph for continuous analysis of total sulfides, COS, SO2, CS2 and H2S using the detection principle FPD (Flame Photometric Detector) using hydrogen/air as carrier gas for measurement in ppm and ppb concentrations. Ideal for monitoring emissions in chimneys, continuous monitoring systems in chimneys (CEMS), environmental monitoring, wastewater treatment odorization of natural gas, measurement of reduced total sulfur (TRS) among others. Detection compounds such as SO2, CS2, H2S, Mercaptans, sulfides (DMS, DMSS, etc.). limit of 7 ppb. Detection range from 4 ppb to 5 ppm (Low range) or 100 ppb- 100 ppm (High range).





# trsMEDOR: H2S, Mercaptans and Sulphides

trsMEDOR is an online chromatograph for continuous analysis of odorous sulfur compounds such as H2S, TRS, DMS, Mercaptans and THT using the cell-specific electrochemical principle for sulfur compounds at ppm and ppb levels. Ideal for monitoring in fermentation processes, defense perimeters, deodorizing processes, fugitive emissions, wastewater treatment plants, refinery, petrochemicals, natural gas transportation lines, application of odorant to natural gas, TRS measurement among others. Detection of sulfur compounds such as H2S, TRS, SO2, methyl mercaptan, dimethyl mercaptan, ethyl mercaptan, dimethyl sulfide, Isopropyl mercaptan, tertiary butyl mercaptan, isobutyl mercaptan, THT among others. with up to 1 ppb with adjustable range of 0-1000 ppb or ppm.

# EnergyMEDOR: H2S, mercaptans, THT, sulphides and total sulfur

EnergyMEDOR is an online chromatograph for continuous analysis of sulfur compounds in natural gas and gaseous fuels using the cell-specific electrochemical principle for sulfur compounds in ppm and ppb levels. Ideal for monitoring processes in the petrochemical industry, transportation of natural gas, industrial processes among others. Detection of sulfur and mercaptan compounds with up Up to 5 ppb with adjustable range of 5-1000 ppb or 1-1000 ppm / ppb. Conforms to standards DIN 51855/7, ISO 19739: 2004 and ASTM D 7493-08: Standard methodology for on-line measurement of sulfur compounds in natural gas chromatography gas fuels using gas electrochemical detection.



# **H2S MEDOR**



H2S MEDOR is an online chromatograph for continuous analysis of hydrogen sulfide (H2S) using the cell-specific electrochemical principle for sulfur compounds in ppm and ppb levels. Ideal for monitoring in processes of verification of H2S levels, catalyst protection, emissions monitoring, chimney monitoring, environment monitoring, total sulfide analysis among others. Detection of H2S with option of total sulfur analysis (TRS) with up to 5 ppb with adjustable range of 5-1000 ppb or 1-1000 ppm. Conforms to standards DIN 51855/7, ISO 19739: 2004 and ASTM D 7493-08: Standard methodology for on-line measurement of sulfur compounds in natural gas and gas fuels using gas chromatography with electrochemical detection.

#### **VigiNOSE**

VigiNOSE is a monitoring system for compound analysis associated with annoying odors using the principle of gas chromatography using principles of electrochemical detection and PID. This is an online chromatography system for the analysis of sulfur compounds, mercaptans and VOCs to determine the olfactory impact of a mixture directly. Ideal for monitoring wastewater treatment plants, refineries, petrochemicals, transport and gas processing sites, waste treatment plants, environmental monitoring, odor impact management and evaluation, TRS measurement and measurement of offensive odors between others. Online chromatograph for continuous analysis of compounds including H2S, SO2, Mercaptans (MM/EM7DMS/DMDS/DES by means of electrochemical detection principle and total.





#### **AirmoPURE**

AirmoPURE is Zero air generator compatible with Chromatotec products, ideal for generation of air without impurities for verification and maintenance of chromatographs or other type of high precision monitoring equipment. Concentration of total hydrocarbons less than 1 ppb with Maximum flow of 1 L/min in discontinuous mode.

#### **Nitroxychrom**

Nitroxychrom is a Nitrogen generator with air compressor compatible with Chromatotec products, ideal for nitrogen generation as carrier gas without impurities for verification, maintenance and calibration of chromatographs or other type of high precision monitoring equipment. Flow of 200 cc/min with option of 300 ccmin for special applications and Purity of 99.9995% nitrogen.



# **CHROMATOTEC / MAGEE**



# Hydroxychrom Hydrogen Generator

Hydroxychrom is a Hydrogen generator compatible with Chromatotec products, ideal for hydrogen generation necessary for FID detectors, FPD, BTEX, VOC analyzers among others. Standard flow of 100 cc / min with option of 160 cc / min (30 mL / min FID, 70 mL / min FPD). Reservoir for distilled water with capacity of 3 L for continuous production of 83 days of Hydrogen.

#### **Aethalometer Model Ae33**

Continuous collection of aerosol on filter with simultaneous measurement of attenuation of transmitted light at wavelengths of 370, 470, 520, 590, 660, 880 and 950 nm. Black Carbon concentration measurement is defined bythe absorption measurement at 880 nm. Multiple wavelength analysis for source apportionment (identification of biomass smoke), studies of aerosol light absorption, radiative transfer, atmospheric optics. High data rate capability for source and emissions testing.





# Model TCA-08 Total Carbon Analyzer

The Magee Scientific Real-Time Total Carbon Analyzer, Model TCA-08, is a revolutionary scientific instrument that measures the Total Carbon Content (TC) of suspended aerosol particles in near-Real Time. Total Carbon Analyzer enables continuous analysis of Total Carbon content of aerosol with two identical flow channels for sampling and analysis.

# UNITEC

#### **ETL3000 AQ Monitoring Sensor**

The ETL3000 is the innovative air quality monitoring solution designed and manufactured by Unitec for indicative measurement (as defined by European Directive 2008/50/EC).

The ETL3000 is a multiparametric station equipped with United SENS-IT sensors for continuous gas monitoring with high precision and accuracy, featured by easy use and very low ownership costs. The IP55 case permits easy and direct outdoor installation.





## **ETL-One AQ Monitoring Sensor**

The ETL-One is the innovative air quality monitoring solution designed and manufactured by Unitec for indicative measurement (as defined by European Directive 2008/50/EC).

The ETL One is a multiparametric station equipped with Unitec SENS-IT for continuous gas and dust monitoring with high precision and accuracy, featured by easy use and very low ownership costs. The ETL One is equipped with a fully integrated dust monitoring module based on orthogonal light scattering technology for real-time particulate monitoring (PM10 or PM2.5 or PM1). Alternatively the ETL One can be equipped with external OPC dust module for multi PM simultaneous monitoring (PM10, PM2.5 and PM1).

## **ETL BUS AQ Monitoring Sensor**

The ETL BUS is the new All-In-One air quality monitoring solution designed and manufactured by Unitec, for indicative measurement (Directive 2008/50/EC) and specifically engineered in a box for car or bus roof for 3D environmental monitoring.

The ETL BUS is a multiparametric station equipped with United SENS-IT for continuous gas and dust monitoring with high precision and accuracy, featured by easy use and very low ownership costs. The ETL BUS is equipped with a fully integrated dust monitoring module based on orthogonal light scattering technology for real-time particulate monitoring (PM10 or PM2.5 or PM1).



# **APEX / LSI**

#### **Apex Instruments Isokinetic**

Apex Instruments Isokinetic Source Sampling Systems are rugged, versatile equipment designed for extracting a representative sample of flue gas. The sample is used to determine particulate & toxic emissions in accordance with U.S. EPA Reference Methods as published in CFR 40 Part 60 Appendix A. Choose between automated or manual systems.



#### **Heat Shield Stress Monitor**

- Quick, real-time, reliable and accurate assessment of indoor and outdoor WBGT index.
- Real-time assessment of the PMV-PPD index (ISO7730).
- Verification probe for assessment of the system calibration.
- Built-in radio technology for simultaneous, wireless monitoring in different locations/heights.
- Rated IP54 to withstand harsh environmental conditions
- 8MB memory for extended data logging
- Battery Life: 200h (with radio on 20h)
- Automatic start/stop of measurements
- Probe design and performances according to ISO7726
- GIDAS TEA- The most advanced software available on the market for Thermal Environment Analysis
- Support for ISO7730 thermal comfort analysis with PMV and PPD indexes, heat and cold stress
- Predicted Heat Strain (PHS), Insulation Required (IREQ)



# WAVECONTROL



# SMP2 Electromagnetic Field Meter

- Broadband measurements DC 60 gHz with RMS and isotropic field probes
- Spectrum Analysis DC 400 kHz
- Real-time FFT
- Weighted Peak Method (WPM) Real-time
- comparison in % with the selected limits
- Assessments according to European Directive 2013/35/EU - In accordance with international standards: ICNIRP, IEC, EN, IEEE, etc.
- High Performance GPS Integrated in the instrument
- USB and Fibre Optic Communication PC software included

# MoniteM Continuous EMF Monitor

- 24/7 Monitoring Guaranteed autonomy with the "Smart Energy" function (AC + solar panel + battery)
- Broadband Measurements Up to 3 kHz in LF and 40 GHz in HF
- IP 66 Environmental Protection Resistant to extreme weather conditions
- Compliance with ITU-T K.83 Direct, easy and comprehensible comparison with regulated limits
- Easy Installation Accessories for easy installation in different surroundings
- Control Centre Server for equipment management and public web page





# cMonitEM Indoor EMF Monitoring

- 24/7 Monitoring Continuous control of NIR exposure levels.
- Indoor/Outdoor Ideal for use indoors and outdoors at street level
- Selective Broadband Specific services: mobile phone signal, Wi-Fi
- Control Centre Equipment management and public communication



## MIRAN SapphIRe Portable Ambient Analyzer

MIRAN SapphIRe Portable Ambient Analyzers. These analyzers utilize infrared spectroscopy for wavelength coverage that permits outstanding single and multi-gas monitoring as well as unknown compound identification, making the MIRAN SapphIRe one of the most versatile gas detection system on the market today. In addition, non-destructive infrared technology means you can send field-analyzed samples to a laboratory for further analysis. Up to 120 single-gas applications.

#### **TVA2020 Vapor Analyzer**

The Thermo Scientific™ TVA2020 Vapor Analyzer can be configured as flame ionization detector (FID) or dual detection technology (FID/PID-photo ionization detector) to offer fast response times. Key features include reduced response times, increased user-serviceability and Bluetooth™ connectivity.





#### Personal DataRAM™ pDR-1500 Aerosol Monitor

Thermo Scientific™ personal DataRAM™ pDR-1500 Aerosol Monitor, a personal aerosol instrument that offers benchtop performance. This fully integrated, active, volumetrically controlled personal sampling instrument offers greater precision, increased capabilities and decreased size and weight in an easy-to-use package.

#### **TEOM 1405 PM Monitor**

The TEOM 1405 distinguishes itself from other PM measurement methods by utilizing a direct mass measurement that is not subject to measurement uncertainties found in other surrogate technologies. It provides a self-referencing, NIST traceable direct mass measurement and take continuous direct mass measurements of particulates using a tapered element oscillating microbalance (TEOM) with the Thermo Scientific™ 1405 TEOM™ Continuous Ambient Particulate Monitor. This monitor measures TSP, PM-10, PM-2.5, and PM-1 airborne particulates with excellent short term precision.





# 5014i Beta Continuous PM Monitor

5014i Beta Continuous Ambient Particulate Monitor PM-10. PM-2.5 Measure or PM-1 concentrations with the Thermo Scientific™ 5014i Beta Continuous Ambient Particulate Monitor. The 5014i distinguishes itself from other beta measurement methods by utilizing a continuous (non-step wise) mass measurement with a proven industry standard which provides for long-term unattended operation. To accurately address potential water bias and volatile loss, the Dynamic Heating System allows the user to hold the sample temperature at a fixed value or below a relative humidity threshold.

# Model 5028i Continuous Particulate Monitor

Conduct simultaneous, real-time measurement of PM10 and PM2.5 and benefit from lower maintenance requirements with the Thermo Scientific™ Model 5028i Continuous Particulate Monitor. The unit combines dual channel sampling technology and beta attenuation analysis on the proven iSeries platform to measure PM10 and PM2.5 simultaneously. The Model 5028i offers continuous, non-stepwise measurement of particulates and complies with U.S. EPA PM-10 (EQPM1102-150) and PM-2.5 (EQPM0609-183).





#### Model 5030i

The Model 5030i sharp monitor is developed on the renowned Thermo Scientific iSeries platform design and offers unprecedented ease of use. The monitor's light-scattering nephelometry is checked against the mass concentration of the beta attenuation data for calibration. It utilizes non-stepwise measurement to auto-advance the particulate-laden sample, avoiding potential particle loss.

# Thermo Scientific Partisol 2000i

The Thermo Scientific Partisol 2000i Air Sampler is developed on the renowned iSeries software platform design and features USB ports for improved data downloads:

**Key Features:** 

- U.S. EPA PM-2.5, PM-10 and PM-Coarse Reference Method.
- Improved data downloads
- Simplified pump exchange





# Partisol™ 2025i Sequential Air Sampler

Store 16 filter cassettes, allowing for two weeks of unattended daily-sampling of particulate matter with the Thermo Scientific™ Partisol™ 2025i Sequential Air Sampler. Developed on the renowned iSeries software platform design, this sampler features USB ports for improved data downloads, and exchanged 47mm diameter sample filters automatically, which can be preset to a user-defined time interval

#### iQ Series Gas Analyzers

The Thermo Scientific™ iQ Series Instrument Platform is a smart environmental monitoring solution for ambient and source gas analysis that affords greater control over instrument performance and data availability. Distributed Measurement and Control (DMC) module design simplifies serviceability. Each DMC module contains its own microprocessor control enabling functional performance validation at the module level.

Built-in predictive diagnostics and preventive maintenance schedules identify problems before they occur. The iQ Series platform sends email notifications directly to Thermo Fisher Scientific's world class service support team or locally identified addressees in order to proactively communicate analyzer performance conditions and identify spare parts needs before an operational concern arises. The iQ Series platform supports Modbus, streaming and VNC protocols over serial and ethernet as well as analog and digital I/O for easy integration into most data management systems.

Three standard USB ports afford convenient data download capability as well as the ability to connect additional hardware, such as a computer keyboard or mouse.

Exceptionally intuitive, the iQ Series GUI runs on a 7" color touchscreen display. The GUI is highly flexible and can be customized to enable a tailored experience to simplify daily operations. Custom designed ePort software allows remote access to the analyzer with a PC. The ePort control mirrors the same GUI look and feel as the instrument touchscreen providing a speedy and familiar operational experience.







# **AIR QUALITY MONITORING STATION**

#### **Stationary or Mobile Shelters**

Stationary or mobile shelters, designed to be deployed for many applications. It includes but is not limited to:

- Ambient air monitoring
- · Continuous emission monitoring
- Communication ground station
- Command control
- Rapid response
- Emergencies
- Test laboratories
- Water quality laboratories
- Electrical generator enclosures
- Earthquake monitoring





# **MET ONE INSTRUMENTS**

#### **Particulate Matter Monitors**

# BAM-1020 Continuous PM Monitor

- U.S. EPA Equivalent Method for PM10, PM2.5, and PM10-2.5 monitoring
- Long term unattended remote operation of up to 60 days between site visits
- Very low operating costs
- Automatic Span Calibration checks
- Highly accurate, reliable, and mechanically simple flow system
- Hourly filter advances minimize effects on volatile compounds
- Advanced Smart Heater technology precisely controls sample relative humidity
- Integrated datalogger allows the connection of up to two multi-parameter meteorological sensors
- Data retrieval through RS-232 or RS-485 serial ports using direct PC connections, or digital data collection systems

# BAM-1022 BETA ATTENUATION MASS MONITOR

The BAM 1022 Real-Time Portable Beta Attenuation Mass Monitor continuously measures the mass concentration of ambient particulate matter collected onto glass filter tape with a time resolution of one minute. It comes integrated into its own lightweight equipment shelter with an easily detachable pump box making it ideal for installation in areas where no permanent structure or walk-in shelter is available. Power consumption is modest as no air conditioning is required. No component weighs more than 40 lb. meaning that it is easily transportable by one person. The entire system may be set up and put into operation in less than ten minutes.





#### **Meteorological Sensors**

#### **Weather Sensor AIO 2 Sonic**

The AIO 2 Sonic Weather Sensor is a complete, high performance weather sensor using Met One Instruments' proven 2D sonic technology. This technology provides reference grade accuracy without moving parts and includes a built-in compass used for automatic magnetic north alignment of the wind sensor. The temperature and humidity elements are integrated into an IP65 sealed module with a quick disconnect for ease of calibration in the field. The pressure element is precisely calibrated, and temperature compensated for outstanding performance.

The AIO 2 will accept data from a tipping bucket rain gauge, a compatible solar radiation sensor (P/N 10718) or both.

The AIO 2 is designed for surface meteorological applications where accuracy and reliability matter.



AutoMet 580 Collection Platform is a complete data logger with front panel display which accepts input from any Met One standard sensors, AutoMet sensors and Met One digital serial sensors. Featuring Ethernet and MODBUS connectivity, the AutoMet output is compatible with our COMET, Air Plus and WeatherView Software. Model 136 MultiMet Interface Module is designed to be easily and quickly connected to any of Met One meteorological sensor and selected particulate AIR sensors.





Thank you for your interest in our products and services.

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