

## Product & Services Guide



## **MONITORING MADE EASY**

Australia's leading provider of real-time equipment for real-time safety.

www.aesolutions.com.au



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## Keep an eye out for these helpful icons



Purchase



Hire



Wireless



AES LIVE SITE compatible



Active Environmental Solutions (AES)
Australia have been supplying occupational hazard monitoring equipment for more than 20 years and are proud of the wide range of products and services we can offer.
AES supplies real-time monitoring equipment for key hazards including gas, dust, heat, hazardous particles, radiation, noise, sound and vibration for both purchase and hire requirements, our service departments are fully equipped to service and calibrate instrumentation. All AES service technicians are officially trained and qualified, and certified to manufacturer standards.

Our mission is to revolutionise the industrial sector's approach to health and safety by providing innovative, world-class, real-time, direct-reading monitoring equipment that safeguards the well-being of workers, preserves the environment, and promotes operational efficiency.

We aim to become the go-to provider of health and safety solutions in the industry, trusted for our cutting-edge technology, exceptional customer service, and unwavering commitment to creating a safer, healthier workplace for all.

#### **AES Services**

#### **Hire Equipment**

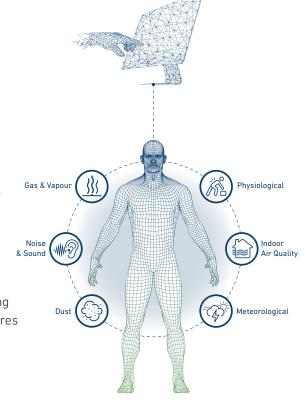
We have an extensive range of instruments in our hire fleet for long or short term hire Australia wide. These instruments are the newest models available and are calibrated and serviced regularly.

#### **Service**

Our technicians are all officially manufacturer trained and certified to provide the best possible service and calibration procedure on your equipment. We use genuine parts and can conduct on-site maintenance work if required.

#### **AES Connect**

AES Connect is a new service offered by AES which encompasses a suite of technologically advanced solutions to help digitise the Safety and Occupational Health industry. Part of this offering includes AES LiveSite, a platform combining real-time data with synchronized video and data readings of workplace exposures with advanced reporting functions, data archiving and instant record retrieval. You will notice the LiveSite icon on some products that are compatible with this platform.



#### **Portable**

Our personal gas monitors are rugged in construction, simple to operate, have audible and visual alarms, and comply with all instrinsic safety requirements. Available with a wide range of sensor options including PID for VOCs, electrochemical sensors for toxic gases and oxygen, flammable LEL and NDIR sensors for CO<sub>2</sub>.







- Extensive range of sensor options
- Datalogging capability
- Man-down alarm options
- · Adjustable alarm setpoints
- Easy to view display
- Remote monitoring access available

#### **Transportable**

When you need more than personal gas monitoring, transportable area monitors provide a comprehensive safety perimeter or wireless fence line.

Real-time monitoring gives peace of mind that issues can be addressed quickly and effectively.





#### AreaRAE PLUS

- Monitors up to 7 gases
- Rugged and weatherproof
- Optional meteorological sensor for tracking toxic plumes

#### BW Honeywell RigRat

- Extended run time off one charge
- Wireless no cables
- Remote monitoring options available with TouchPoint Plus Control System
- Connect multiple units for a wireless safety boundary

## Fixed and Semi-Permanent

#### MeshGuard

MeshGuard is the leading gas detection system that is rapidly deployable in numerous industrial and remote monitoring applications.

- Self-forming wireless network; units come online automatically
- Multiple controller options for real-time wireless data collection and viewing
- MeshGuaro

   M
- · Intrinsically safe
- Magnetic mounting option for very quick and easy installation



An easily configurable, wall mounted control system that supports up to sixteen channels of gas detection. Its intuitive user interface and modular approach enables you to take control and configure what you need for a wide range of applications.

- Quick and easy setup and use
- Intuitive touchscreen user interface
- Traffic light style status at a glance



- Ergonomic industrial design
- Suited to a wide range of industries

#### Sense Point XCL

Sense Point XCL combines a simple yet robust mechanical housing with a gas detector app, so you can use everyday technology to set up and maintain your gas detector. Sensepoint XCL is available as a flammable gas detector for the detection of potentially explosive gases, or as a toxic gas detector.



- Simple, robust housing with our easiest ever installation and maintenance
   Integral gassing port for hard-to-reach locations
- Compatible with Touchpoint Plus and other industrystandard controllers
- Manage installation, commissioning and maintenance from the gas detector app on your smartphone
- Aesthetic design blends in to the environment



#### **Personal PID**

#### ToxiRAE Pro PID

Protect workers from the threat of volatile organic compounds (VOCs) in the workplace and observe conditions remotely from a central command station with this compact, wireless monitor.

Reliable, rugged, and intrinsically safe, the ToxiRAE Pro PID can be easily attached to workers' uniforms.



- Wireless access to real-time instrument readings and alarm status
- Man down Alarm
- 190 built-in PID correction factors
- Continuous datalogging
- Easy to use

#### Fixed PID

#### **RAEGuard 2 PID**

Continuously monitor for the threat of Volatile Organic Compounds (VOCs) in hazardous locations with the fixed RAEGuard 2 PID detector. This monitor is easy to configure and maintain in the field thanks to a modular design with easy access to PID lamp and sensor, without the need for tools.



**Survey Monitors PID** 

- Fixed, field-configurable detector for VOCs measurement
- Pre-programmed correction factors for more than 200 compounds
- Digital and analog outputs
- Graphic display and LED status indicator for fault and alarm conditions
- · Humidity compensation



### **Landfill Gas Monitors**

Using a landfill gas monitor forms an important part of ensuring a landfill site is safe for those that work on-site but also those who live and work in the surrounding areas. Landfill gas emissions present several hazards, including explosion risks from combustible methane gas, one of the most common gases to be found produced from a landfill site.

#### **GFM 436**

The GFM 436 by Gas Data is an ATEX accredited instrument for landfill gas control and site investigation. This instrument measures the proportions of CH $_4$  (by both volume and Lower Explosive Limit), CO $_2$ , O $_2$ , H $_2$ S and CO presented in soil gas, greenfield and brownfield sites. Hexane content is measured to assist in areas with hydrocarbon vapours from spilt fuels, oils, or other such contaminants.



#### **INSPECTRA MAX**

The INSPECTRA® MAX by Gazomat is a natural gas leak portable analyser with laser spectroscopy. This highly sensitive detector offers all the advantages of optical detection in a highly compact and portable device, giving you precise and reliable findings when detecting methane leaks.



- · Intrinsically safe and ATEX certified
- Provides measurements of 6 gases
   CH<sub>4</sub>, CO<sub>2</sub>, O<sub>2</sub>, H<sub>2</sub>S, CO and Hexane
- Measure of atmospheric, flow rate, static and differential pressures
- Small portable design that is easy to hold in one hand
- Optional water level data entry with 2 meter readings can be stored for each borehole location

- Total selectivity to methane
- Smooth and stable readings
- Methane high sensitivity, down to 0.5ppm
- Continuous display from 0ppm to 100% Vol. GAS
- Extended temperature range from -15°C to +50°C
- Zone 1, IECEx and ATEX certified, can be used safely indoors and outdoors in explosive atmospheres

## **Transportable and Fixed Solutions**

A fixed monitoring solution can be used to consistently understand levels of dust to identify the activities which create the greatest risk. For particulate monitoring in remote locations or where power is not available, we have options to power up your dust monitor 24-hours a day, without interruption.

#### **AIR XD**

AES can support long and short-term dust monitoring operations with a fixed set-up of the AIR XD. This unit will simultaneously monitor different PM sizes including, PM1.0, PM2.5, PM4.25 and PM10 providing results in real-time.

**Dustroid** 

Dustroid is an Online Dust Monitoring System for accurate and simultaneous measurement of PM10 and PM2.5 in ambient air. It is capable of monitoring various particulate size ranging from 1 micron to 100 microns.

It can measure different kinds of dust pollution like Suspended Particulate Matters (SPM), Respiratory Particulate Matters (RPM) and Total Suspended Particulates (TSP).

Dustroid can be used for dust monitoring in areas with dust-laden activities like construction, mining, quarrying, ports, metallurgical processes, and many more.



Battery back-up

- Solar Power
- Real-time telemetry

#### DustTrak™ DRX

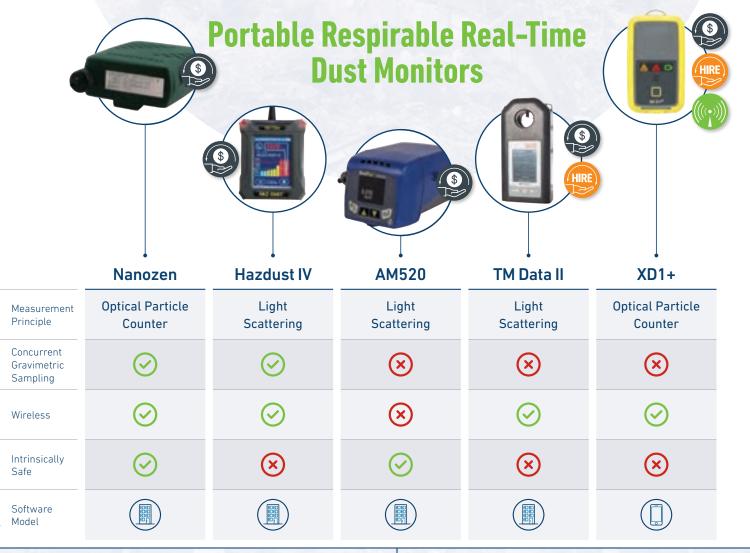
The DustTrak™ DRX Aerosol Monitor can measure both mass and size fraction at the same time and provides a gravimetric sample. It is suitable for indoor and outdoor applications, industrial and occupational hygiene, baseline screening, remote monitoring and research studies.

- Simultaneously measure size-segregated mass fraction concentrations corresponding to PM1, PM2.5, respirable, PM10 and PM Total size fractions
- STEL alarm setpoint
- · Touchscreen interface
- · TrakPro data analysis software
- Automatic zeroing (with optional zero module) minimizes the effect of zero drift
- Perform in-line gravimetric sampling for custom reference calibrations

#### **AQMesh**



- · Real-time telemetry
- NO, NO<sub>2</sub>, O<sub>3</sub>, CO, SO<sub>2</sub>, H<sub>2</sub>S, TVOC and CO<sub>2</sub>
- PM1, PM2.5, PM10, TPC and TSP (up to 30 microns)
- Noise option
- · Wind speed & direction option
- Relative humidity, pod temperature and atmospheric pressure as standard

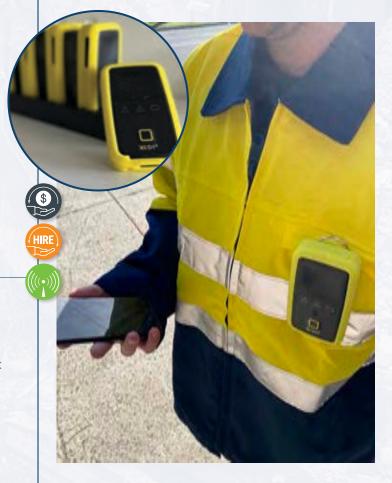


#### **XD1+ Personal Dust Monitor**

This cost-effective, real-time personal dust monitor clips easily to the wearer as a lightweight alarm detecting harmful increases in dust particles. Simple and straightforward operation with just a single button, the XD1+ gives you instant alarms for fully customisable STEL and TWA measurements for dust sizes.

The XD1+ has been designed to be used daily to complement traditional regulatory air monitoring to provide that extra layer of safety and continuous data logging.

- Real-time alerts
- Dimensions of only 112mm x 64mm x 25mm
- 0.1um to 10 um particulate detection
- User-configurable audio-visual alarms to provide instant warnings to workers who exceed thresholds
- Battery operated, rechargeable (16+ hour battery life)
- No pumps, filters, sampling heads, tubes, impactors, or any other consumable parts
- BLE enabled



## **Respirable Silica Dust Monitoring**

Silica dust is generated in workplace from mechanical processes including crushing, cutting, drilling, grinding, sawing and polishing of natural stone or man-made products that contain silica.

Inhaling crystalline silica particles, which are sometimes so small you cannot see them, can lead to serious illnesses such as silicosis, lung cancer, tuberculosis, and chronic obstructive pulmonary disease (COPD).

#### Workplace Exposure Standards

Under the model WHS Regulations, PCBUs (person conducting a business or undertaking) have specific duties to manage the risks to health and safety when using, handling, generating and storing hazardous chemicals, including silica. PCBUs also have a duty to ensure the workplace exposure standard for crystalline silica is not exceeded and to provide health monitoring to workers.

The workplace exposure standard for respirable crystalline silica (silica dust) that must not be exceeded is 0.05mg/m³ (8 hr time weighted average).\*

\*currently under review

#### **Solutions**

AES offers a variety of personal air sampling monitors and dust monitoring solutions suitable for larger or remote locations. To ensure effective hazard monitoring, a combination of personal air sampling monitors and area monitors might be necessary. The ideal approach will be determined by the distinct needs of your situation.



## **Real-time Silica Monitoring**

The award-winning Air XS Silica Monitor from Trolex, produced with the support of the Centre for Work Health and Safety, is the only real-time silica monitor in the world. Air XS Silica Monitor is designed to give you an early warning and the power to understand and mitigate your respirable crystalline silica (RCS) risks, and to help protect your people from harm and your business from potential litigation.

- Real-time silica detection with downloadable data
- Verify preventative processes are working
- · Easy and simple to maintain





## **Air Sampling**

During operations there is the potential for harmful dust, gases or vapours to be discharged to the atmosphere. As inhalation is usually the most significant route of entry into the body, it is important that the air workers breathe is monitored. Air quality monitors can help to alert when toxic pollutants are present and ensure that legislative limits are not exceeded.

## **Area Sample Pump**

#### **AIR BOX**

A high performance 5-10L/min pump with flow compensation, no pulsation and full data capture capability. Monitor live flow rates from outside the enclosure with Bluetooth technology with easily downloadable report data.

- Adjustable flow rate (5-10L/min)
- Shower and dustproof to IP65
- Flowrate compensation
- · Easy access to battery for quick on-site swap out



## **Personal Air Sampling Pumps**

Inhalation of dust particles is usually the most significant route of entry into the body, it is therefore important that the air workers breathe is monitored. Air sampling pumps draw in a known volume of air through a suitable sampling medium in order to achieve accurate results.

Key features of our personal air sampling pump range:

- Large range of flow rates available from low to high
- Wirelessly enabled
- · Long battery life and run times
- Touch screen options
- Rugged and durable for harsh environments
- Multiple unit charging dock
- Lightweight and ultra-quiet options available
- · Market leading technology



## **Indoor Air Quality**

Many work environments often require people to spend a large portion of their time indoors.

As a result, a worker's long-term health and comfort are largely dependent on indoor air quality (IAQ) testing. Unlike outdoor air, indoor air is recycled continuously – causing it to trap and build up pollutants. The IAQ monitors supplied by AES measure common air pollutants, in some cases as low as ppb level detection.

AES provides a full line of indoor air quality monitors and air pollution meters that can be used to gauge temperature, humidity (% RH, wet-bulb, dew point, etc), outdoor air calculations, carbon dioxide, carbon monoxide and airborne particles.

#### DirectSense II

This WiFi and Bluetooth enabled smart probe is a cutting-edge air monitoring probe.

#### Measuring:

- Temperature Humidity
- CO2 CO VOC (PPB),
- Formaldehyde (PPB) Ozone

Plus other indoor air quality, green building, industrial hygiene and HVAC parameters.

#### CO<sub>2</sub> Monitor

A cost-effective CO<sub>2</sub> Transmission Risk Air Monitor (HTRAM) from Honeywell. For use in schools, restaurants, gyms and other small-to-medium sized buildings that alerts users when conditions are present that may increase the risk of exposure to airborne viral transmission, including COVID-19. Includes in-built smart algorithm to account for human activity levels in an indoor area, providing a more accurate reading.

#### Q-Trak VelociCalc

TSI's Q-TRAK™ IAQ Monitor provides quick, accurate information to assess key IAQ parameters, including CO₂, temperature, humidity, CO and VOCs. Good indoor air quality improves concentration and productivity and can also reduce lost days due to health-related absences.







- Bluetooth connection direct to iOS and Android smartphones and tablets
- GrayWolfLive® available via WiFi enabled DirectSense II probes with secure cloud platform for remote realtime access, data-logging, and alerts
- Plug-and-play sensors to fit your application, current and future

- Sleek and lightweight design
- Easy to see traffic light system to show increase in CO<sub>2</sub> level
- Integrated 3 pre-programmed activity levels to provide a more accurate reading
- Coverage of 800-1000 sq ft
- Simultaneously displays CO<sub>2</sub>,
   CO, temperature and humidity measurements
- Calculates dew point, wet bulb and percent outside air
- · Large colour graphic display
- Displays up to 5 measurements

## **Biological Monitoring**

Biological monitoring is carried out for a variety of reasons, from ensuring that workplaces comply with regulatory standards to ensuring that workers are protected from biological hazards.

AES supplies a variety of biological monitors, including microbial air monitors, mould monitors and devices to test for the presence of bacteria in water.

## Mould

## Mycometer® Surface Fungi

Quantification of fungi on surfaces in less than an hour, the methodology has been developed in collaboration with mould remediation consultants and contractors and the Danish Building Research Institute, and has been proving its value for more than a decade.



## **Allergens**

## Mycometer® Air Allergen

This sampling kit is for quantification of allergens in air. The test assays are conveniently packaged in sets of 20 samples per box, complete with accessories required for both sample collection and analysis.



#### Mycometer® Air Fungi

Air Fungi is the state-of-the-art test method for onsite quantification of fungal particles in air in less than an hour. The methodology measures the level of fungal particles in terms of viable and most nonviable spores and hyphal fragments.



## **Biological Air Sampling**

#### QuickTake 30

QuickTake 30 Pump (10 to 30 L/min) is designed for use with BioStage viable cascade impactor, VersaTrap spore trap cassettes, asbestos filters, or impactors.



#### **BioStage**

The BioStage Single-stage Bioaerosol Impactor operates on the principle of inertial impaction and meets NIOSH Methods 0800 and 0801 specifications for sampling indoor and outdoor air for viable microorganisms, including bacteria, fungi, and actinomycetes.



- On-site results in less than an hour
- Verified Technology (USEPA 2011)
- · High data reproducibility
- Long run times on one Li-lon battery charge
- Easy to use programmable timer for unattended sampling
- Compact and portable
- Versatile sampling accessories
- · High-contrast digital display

- Easy to use
- Proven principle of operation
- Meet ACGIH recommendations for bioaerosol sampling
- Meet NIOSH Method 0800 and 0801 requirements
- Performance equivalent to Andersen
   N-6 and Aerotech 6\*\*

## **Noise Dosimetry**

Noise dosimeters are used to measure the noise exposure of a person over a specific time period. Employers are required to supply their staff with noise dosimeters that will track the amount and level of noise a worker is subjected to.

#### Minuendo

Smart Alert is a complete solution consisting of hearing protection with noise monitoring ear plugs and a data service that provides automatic notifications and actionable guidance on noise exposure.



- Hearing protection with noise monitoring (in-ear)
- Real-time warnings
- Natural hear-through for situational awareness
- No overprotection
- Simple dashboards for HSE managers and users
- Analytics with actionable insight



#### High noise levels

may initially cause dull hearing and ringing in the ears, whilst regular exposure may lead to loss of hearing and other adverse health effects.

#### Low noise levels

can interfere
with activities or
concentration and can
cause similar stress
and health effects as
high noise levels.

#### doseBadge 4 Cirrus

The doseBadge 4 is the original wireless personal noise dosimeter and is the ideal instrument for personal noise exposure measurements.



- Rugged metal case
- No cables or external microphone
- Reliable and very easy to use

#### doseBadge 5 Cirrus

The doseBadge5 is the next generation doseBadge noise dosimeter from Cirrus. It provides all the unique features of the original doseBadge such as no controls, cables or displays, with a range of new features.



- Bluetooth connection
- Scheduled start and stop functions
- Automatic calibration detection and USB download

**Sound Level Meters** 

#### **Optimus Red**

The Optimus Red is a purposebuilt occupational sound level meter, perfect for testing the noise levels in work environments to help meet health and safety compliance levels.

- · Simple to operate
- Real-time measurements
- Up to 140dB(A) and 143dB(C) Peak with a single measurement range



The Optimus Green is for environmental noise measurements, including power generation and aviation noise.



- Real-time 1:1 & 1:3 Octave Band Filters
- Simultaneous A, C & Z Frequency Weightings
- Simultaneous F, S & I Time Weightings
- Single 120dB measurement range

## **Hand-Arm Vibration (HAV)**

Hand-Arm Vibration (HAV) is the most common type of vibration that a worker may be exposed to. It is caused by long term exposure to handheld tools and equipment such as sanders, chainsaws and grinders. Hand-arm vibration meters can help to prevent many of these health issues from developing.

#### R-Link HAV and Proximity Warnings

The R-Link smart watch is a new generation of workplace wearable technology which is designed to help workers monitor the risk of exposure to vibration and provides a multi-function proximity warning system.

R-Link informs the wearer of their vibration exposure levels by calculating and displaying their HSE HAV risk assessment exposure points in real-time.

Using the latest ultra-wideband technology for fast and accurate detection.

the R-Link watch will also alert workers of their proximity,

keeping your workforce safe from straying too close to dangerous vehicles or equipment.

# t workers of their proximity,

#### **Revo HAV Meter**

The CV:31A Revo<sup>™</sup> Vibration Meter provides a simple and convenient way to measure, analyse and assess vibration data.

Capable of measuring four channels simultaneously, the CV:31A is ideal for assessing hand-arm and whole-body vibration exposure.



- Keep workers safe with proximity warnings to moving vehicles or equipment
- Gain real insight of exposure to vibration and readily show compliance
- Create exclusion zones, based on workers' credentials, to restrict access
- Send alerts and track lone workers
- Track employee movements and activity levels

- Meets ISO 8041:2005
- 3 channel FFT for the detection of main frequencies
- Fourth cannel for SEAT measurements at driver seats

## **Outdoor Environmental Monitoring**

#### Short/long term monitoring

The Cirrus Invictus outdoor noise monitoring system is a purpose designed environmental noise measurement instrument designed for use in a wide range of applications from short term noise measurements to long term noise monitoring projects.

The Cirrus Invictus outdoor noise monitoring system can be used on its own as a portable environmental noise monitor or can be combined with other instruments and sensors to form part of a larger, more comprehensive noise measurement and management system.



## **Environmental Noise**

#### Quantum Outdoor / Indoor

#### **Permanent Cloud-based Monitoring**

Quantum Outdoor is a fully automated solution for environmental management that takes advantage of cloud technology to provide a comprehensive environmental monitoring system. It offers the ultimate solution for remote data access and analysis of multiple environmental conditions, including particulates and gases, vibration, and weather and wind speed by combining them all into one easy-to-use package.

- 24/7 real-time sound level monitoring
- Secure data access through the Quantum Portal anytime, and on any device (mobile, tablet, PC)
- Automated real-time alerts if a decibel trigger level is reached or exceeded, so you can stay in control and take corrective action before a non-compliance is issued



#### MERCURY MONITORING

## **Mercury Monitoring**

Mercury exists in many forms, from elemental (or metallic) and inorganic to organic. It is found in the air, water and soil, but some industries pose the risk of overexposure. Each of these forms differs in its degree of toxicity and in the health problems they can cause. AES can help you to avoid issues related to mercury exposure with our range of handheld mercury monitors.





#### **J505**

- Portable fluorescence spectroscopy
- Battery operation for 10+ hours, battery charges in 3 hours or less
- Detection range: 0.05 μg/m3 to 500 μg/m3

#### J405

- Gold film sensor technology
- 24 hour battery life
- Detection range: 0.5 μg/m3 999 μg/m3
- Battery powered sensor regeneration
- · Auto time/date stamp

## **Face Fit Testing**

Face fit testing or RPE fit testing is an important range of tests undertaken to ensure that tight-fitting respirators fit the user correctly. It ensures respiratory protective equipment, including N95, P100 and N99, FFP1, FFP2, FFP3, full and half-face elastomerics, are working properly to provide the highest level of protection to the wearer.

#### AccuFIT9000 Pro

- Fit tests all tight-fitting full & half respirators
- Easy to use 7" colour touch screen control
- Stand alone or PC operation
- Two modes of operation for particle size range
- · WiFi enabled
- OSHA, ANSI, CSA, HSE protocol compliant

AccuFIT 9000 Pro can be calibrated and serviced in Australia, at an AES office.





#### CONSUMABLES

- Disposable fit-testing probes
- Universal fit-testing alcohol
- · Fit-testing twin tube hose
- Lighthouse Shield Pro P2 respirator (Flat Folded) Compliant to AS/NZS 1716:2012

#### ASBESTOS MONITORING

## **Real-time Asbestos Monitoring**

#### **ALERT PRO Connected**

The ALERT PRO Connected by Alert Technology is the world's first early warning device for airborne asbestos fibres. Portable and easy to use, it continuously assesses the airborne environment providing a real-time alarm if asbestos containing materials are disturbed and their toxic fibres released into the air. This vital early warning enables an immediate and proactive safety response helping to prevent the risk of prolonged exposure. An IoT device, ALERT's location can be tracked using GPS and its real-time data transmitted to the ALERT CONNECT platform for users anywhere in the world to access (provided the device has signal)

(promote more and angles)

Real-time alerts for airborne asbestos

- Portable, lightweight & robust
- Visual & audible alarms
- Comes with 2 x 8 hr Lithium Ion Batteries (15v)
- Downloadable time & data stamped reports
- Local end user software for report generating



## **Heat Stress Monitoring**

AES provides an extensive range of physiological monitoring equipment to help identify and reduce heat stress in the workplace. Our equipment assists in monitoring worker well-being including core body temperature, activity level, and hydration status.

#### **Heat Shield**

The LSI Lastem Heat Shield WBGT monitor is an essential tool for the health and safety professional in their evaluation of the environment for risks relating to heat stress. Its compactness, ruggedness and ease of use, make the Heat Shield the ideal solution for everyday monitoring in both indoor and outdoor harsh working environments.



#### Kenzen

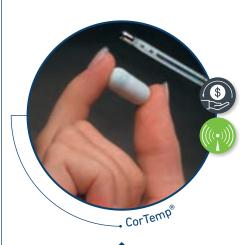
Kenzen Patch™ is a small flexible device that provides safety monitoring of key physiological indicators for workers. Worn during the work shift, personalised health insights and notifications will be received to help you stay safe in the most strenuous scenarios.

The sensor technology and programmed algorithms provide real-time feedback on performance, motion and vitals.



#### CorTemp®

CorTemp® Ingestible Core Body
Temperature Sensor wirelessly
transmits accurate core body
temperature reading as it travels
through the digestive tract. The sensor's
signal passes harmlessly through the
body to the CorTemp® Data Recorder
worn on the outside of the body.
Core body temperature and heart rate
are two of the most objective measures
for heat stress. The CorTemp™ wireless
Core Body Temperature/Heart Rate
Monitoring system delivers both
with the highest degree of accuracy,
comfort and ease of use.



- Measures globe temperature, wet bulb temperature, dry bulb temperature and relative humidity
- Quick, reliable and accurate assessment of indoor and outdoor WBGT index
- Built-in radio technology for simultaneous, wireless monitoring in different locations/heights
- Predicted Heat Strain (PHS) calculations

- Real-time reporting of heart rate, sweat rate, body temperature and activity
- View personal trends and historic reports
- Real-time alerts with OSHA-based follow-up recommendations
- Add flags to capture important health events

- Wireless monitoring of core body temperature
- Accurate sensor results within +/- 0.1°C

#### Checklist for risk-managing heat in the workplace

#### Risk factors to consider:

- · Are ambient conditions hot?
- · Are days and nights hotter than usual?
- Is it humid?
- · When is work done?
- How often can workers take breaks somewhere cool?
- Is there air movement or a breeze?
- Is the work intense or long?
- Are workers physically fit and acclimatised?
- Do workers wear hot clothing (including PPE)?
- Are the workers qualified, trained and experienced?
- (If known) do workers have medical conditions?
- Is there cool drinking water or electrolyte drinks on hand?

#### **Equivital**

Equivital leverages data sent from an intrinsically safe version of EQ02 LifeMonitor, worn on the body, to provide real-time safety, welfare and location information of workers within a facility.

This information is sent using Radio/Satcom/GSM/GPRS/WiFi and can be viewed by key personnel locally or remotely.

#### HydraTrend™

HydraTrend™ Test Strips are intended for self-monitoring of urine pH and specific gravity for hydration status monitoring.
Hydration test kit results are easy to read by simply comparing the results on the test strip to the colour chart on the bottle.

#### Real-time Outdoor Heat Stress Monitoring System

LSI LASTEM has developed a weather station suitable for WBGT index permanent real-time monitoring for the health and safety of workers in severe outdoor high thermal stress conditions.

The system consists of sensor, data logger and mounting accessories, for the measurement of air temperature, relative humidity, radiant temperature and wet temperature (other meteorological sensors are available).





LSI LASTEN

- Displays heat stress, safety and performance monitoring in real-time
- Includes interactive map for location tracking
- Customisable analytics and after-action review
- · Track and predict heat injury
- Designed for long term wear
- ATEX/Intrinsic safety approvals

- · Convenient and easy to use
- Quick feedback on hydration status which can be used to adjust fluid intake
- 30-60 second results
- Automatic weather station including sensors for WBGT calculation: wet temperature, globe temperature, air temperature (and RH%). Other meteorological sensors are available
- Permanent and real-time system
- · Real-time dashboard

#### **EMF Monitors**

As many manmade sources (such as electrical wiring) can emit AC electromagnetic fields, which contain radiation, being able to measure them is important.

This is where EMF monitors come into play. They are designed to measure the EMF radiation being emitted and to alarm if the levels reach potentially dangerous proportions.

#### WaveMon RF-60

EMF Personal Monitor, for the continuous monitoring of workers' exposure to EMF measurements up to 60 GHz.



- Electric Field Detection, Isotropic sensors with RMS response
- Weighted response to international standards.
   ICNIRP 98, European Directive 2013/35/EU, FCC and Safety Code 6
- High intensity audible, visible and vibration alarms.
   With user definable trigger threshold

## SMP2 – Electronic Field Meter

The SMP2 is an ideal EMF measurement system for analysing magnetic and electric fields in public spaces and workplaces, locally or remotely.



- 2-in-1: broadband measurements (DC to 60 GHz) and spectrum analysis (DC to 400 kHz).
- Real-time FFT-based spectrum analysis using digital processing.
- Weighted Peak Method (WPM) for automatic and real time comparison with limits.

#### LIGHT METERS

## **Light Meters**

Light meters are used to measure the amount of light in various applications, including the verification of proper installation and performance of building lighting systems and in assessing the light levels required by growing plants. Exposure to too much or not enough light can also cause health problems for workers.

## Extech Heavy Duty Light Meter – 407026 NIST

- Fc Range: 200.0, 2000, 5000Fc
- Lux Range: 2000, 20,000, 50,000Lux
- Basic accuracy of ±4% FS
- Large 1.4" (1999 count) LCD display
- · % displays differential from reference point
- "ZERO" Re-Calibration



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## **Water Quality Monitoring**

AES supply a wide range of water quality monitors for hire. Ground water assessments are essential in the management of a sustainable environment. Samples are taken to assess the water quality and also record as data as a snapshot of level of quality during that time.

#### **WP-88 Turbidity Meter**

- The WP series enclosure is fully waterproof to IP67 rating.
   The connectors are rated to IP65
- · Australian made
- User friendly



#### Solinst 122 Interface Meter

The 122 Interface Meter measures water and product level and thickness, accurately to 1.0 millimeter or 1/200 ft.

- · Certified intrinsically safe, and is ATEX certified
- Lengths to 300 m or 1000 ft



#### MP10 Low Flow Micropurge Kit Digital Controller

Expert flow and drawdown control for low-volume purging

- Exclusive MicroPurge control mode
- Multi-mode digital control
- Full digital display



#### YSI Professional Plus Water Quality Meter

Handheld multiparameter meter providing extreme flexibility for the measurement of a variety of combinations for dissolved oxygen, conductivity, specific conductance, salinity, resistivity, total dissolved solids (TDS), pH, ORP, pH/ORP combination, ammonium (ammonia), nitrate, chloride and temperature. Also a very powerful lab instrument for BODs, pH and ORP.



#### Heron H.Oil Interface

The H.OIL oil, water interface meter is used to measure the interface level between two liquids in the same tank, vessel, well or aquifer.



## **Service**

- Priority service on calibration and repairs
- ✓ 48-hour turnaround time for calibration
- ✓ All/most brands of equipment serviceable
- ✓ Fixed pricing for calibration
- ✓ Factory trained service technicians
- ✓ Onsite service available
- ✓ Dedicated Account Manager
- ✓ Technical phone support
- ✓ Free training session
- Access to rental/loan equipment \*Subject to availability

We believe in the importance of superior customer satisfaction and after-sales service. Our fully equipped Service Departments are supported by qualified and officially manufacturer certified technicians to ensure that the correct and efficient maintenance requirements of customer's instruments are met.

Our AES Service van is also available for onsite service work.



## **Accessories**

## AES can supply you with bottled gas and accessories for all your instruments

CUSTOMISED CASES



DOCKING STATIONS



SAMPLE PROBES & TUBING



#### CALIBRATION GASES



CONFINED SPACE KITS



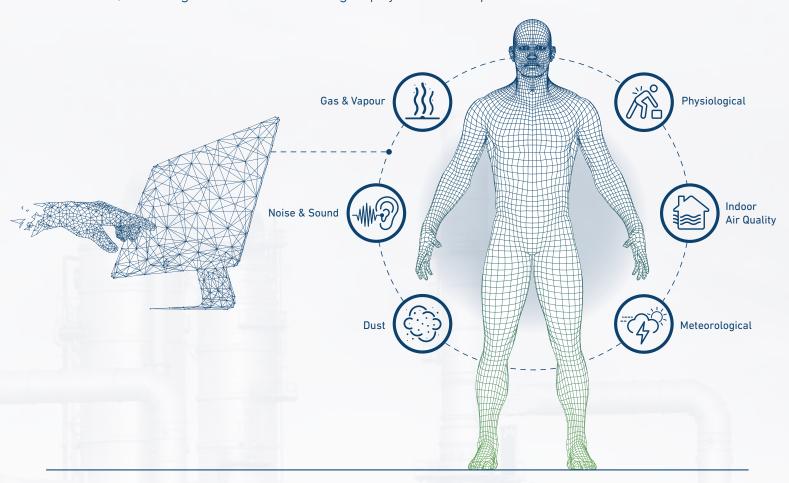
These customisable cases can be used to transport your monitoring equipment easily and safely. Our waterproof hard cases are impenetrable and indestructible with a lightweight, tough resin shell and double side-mounted superior latching system.

## **Connected Health & Wellbeing**



AES Connect is a suite of solutions to assist the workplace health and safety professional in making workplaces safer and more productive using advanced digital technologies.

We connect safety devices, individual worker hazard monitors, and environmental data hubs, ensuring seamless monitoring of physical atmospheric hazards.



#### **AES LiveSite**

AES LiveSite, developed in partnership with Vigilum
Technologies is a cutting-edge application for real-time exposure monitoring. LiveSite offers operators a modular single interface that integrates multiple monitoring devices, data sets, site and worker administration tools.

## AES SampleConnect - Coming Soon!

AES SampleConnect allows users of traditional air sampling methods and equipment to digitise their data and results, producing accurate reports, faster analysis and a digital paper trail for audit purposes.

## AES TwinConnect - Coming Soon!

AES TwinConnect is the concept of creating a virtual replica of the physical workspace, complete with real-time data integration.

This technology provides an unparalleled understanding of potential hazards and their interactions. Digital representation allows for the simulation of various scenarios, enabling proactive identification of risks before they manifest in reality.



#### **REAL-TIME EQUIPMENT FOR REAL-TIME SAFETY.**





























AES - Leading the way in real-time equipment for real-time safety.



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