ENVIRONMENTAL MONITORING CATALOGUE

NOVEMBER 2022





MORE SOLUTIONS FROM KENELEC SCIENTIFIC



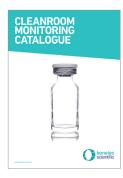
Occupational Health & Safety Catalogue



DPM Monitoring Brochure



Rental Solutions Catalogue



Cleanroom Monitoring Catalogue



HVAC & Indoor Air Quality Catalogue

ENVIRONMENTAL MONITORING CATALOGUE

Environmental monitoring products help identify risks to communities and workers from breathable particles. With hard data on air quality and visibility, organisations are able to meet health and safety standards.

Kenelec Scientific offer a range of environmental monitoring options to ensure the health safety of organisations and individuals through quality equipment designed to measurement dust, aerosols, diesel particulate matter, smoke and ultrafine particles.

DUST AND AEROSOL MONITORING

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GOT A QUESTION? GET IN TOUCH!

Have an enquiry about a particular product? You can contact our **Sales Department** via the following channels:

- **L** +61 3 9873 1022
- 🔀 sales@kenelec.com.au
- www.kenelec.com.au

DUST AND AEROSOL MONITORING

Kenelec Scientific can offer you a wide range of dust and aerosol monitoring solutions, from basic sample pumps for gravimetric analysis, right though to high-end research grade particle counters.

REAL-TIME DUST MONITORS

Need immediate access to dust and aerosol data to determine exposure levels and take prompt corrective actions? Do you need more than a single total sample value for a full shift? Then real-time light-scattering laser photometers are an ideal solution. The DustTrak range from TSI take dust and aerosol measurements in real time, and can be used in a variety of outdoor applications including harsh industrial workplaces, construction sites and environmental sites.

TSI DUSTTRAK II AND DRX AEROSOL MONITORS

The DustTrak series measures aerosol contaminants such as dust, smoke, fumes and mists, giving you real-time aerosol mass readings. Offering a suitable solution for a range of environments from clean office settings to harsh industrial workplaces, construction and environmental sites.

Used by the EPA, regulators, mining companies, quarries, construction companies, councils, leading OH&S consultants, environmental consultants, the defence department, universities and research groups, the DustTrak series of monitors are the ultimate devices for dust monitoring applications.

Features

- Measure size-segregated mass fraction concentrations corresponding to PM 1, PM 2.5, PM4 (Respirable), PM 10 and Total PM
- Lightweight and portable
- · Highly accurate measurements down to 0.1u
- 60,000+ point data logging capability
- · Complete with software and accessories

Applications

- Industrial/occupational hygiene surveys
- Indoor air quality investigations
- Outdoor environmental monitoring
- · Baseline trending and screening
- Engineering control evaluations
- Remote monitoring
- Process monitoring
- Emissions monitoring
- Aerosol research studies



TSI 8530 DUSTTRAK II PORTABLE DUST MONITOR

Features

- 0.1 to 10 µm particle size range
- 0.001 to 400 mg/m3 concentration range
- 6600mA rechargeable Li-Ion battery
- 5.7" VGA colour touch screen
- 37mm filter sample collection capability*

*cartridges not included, must be purchased separately

MEASURES PM FRACTIONS

ONE AT A TIME

TSI 8532 DUSTTRAK II HANDHELD AEROSOL MONITOR

Features

MEASURES PM FRACTIONS

SIMULTANEOUSLY

- 0.1 to 10 µm particle size range
- 0.001 to 150 mg/m3 concentration range

RENT

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- 3600mA rechargeable Li-Ion battery
- 3.5" VGA colour touchscreen



TSI 8533 DUSTTRAK DRX **DESKTOP AEROSOL MONITOR**

Features

- 0.1 to 15 µm particle size range
- 0.001 to 150 mg/m3 concentration range
- 6600mA rechargeable Li-lon battery
- 5.7" VGA colour touch screen
- 37mm filter sample collection capabilities

*cartridaes not included, must be purchased separately

TSI 8534 DUSTTRAK DRX HANDHELD AEROSOL MONITOR

- 0.1 to 15 µm particle size range
- 0.001 to 150 mg/m3 concentration range
- 3600mA rechargeable Li-Ion battery
- 3.5" VGA colour touchscreen
 - **Dust & Aerosol Monitoring**

CUSTOM ENVIRONMENTAL MONITORING SYSTEMS

Outdoor dust and aerosol monitoring is a growing requirement, covering a range of applications including outdoor construction sites, site perimeter monitoring, bush fire monitoring and remote monitoring applications. Kenelec Scientific understands that no site is ever the same. To assist in meeting your monitoring requirements, we've created a step-by-step guide to customising your very own dust, smoke, diesel or other aerosol monitoring system based around the DustTrak range of aerosol monitors from TSI.

AEROSOL MONITOR OPTIONS



TSI 8530 DUSTTRAK II

- Measures PM1, PM2.5, PM4 and PM10 one at a time
- 0.1µm to 10µm particle size range
- 0.001 to 400mg/m³ dust concentration

TSI 8533 DUSTTRAK DRX

- Measures PM1, PM2.5, PM4, PM10 and PMTotal simultaneously
- 0.1 μm to 15 μm particle size range
- 0.001 to 150mg/m³ dust concentration



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ENCLOSURE OPTIONS

+ TSI 801690 AUTOZERO MODULE

- Required for all environmental monitoring systems
- Eliminates zero drift when sampling over extended periods



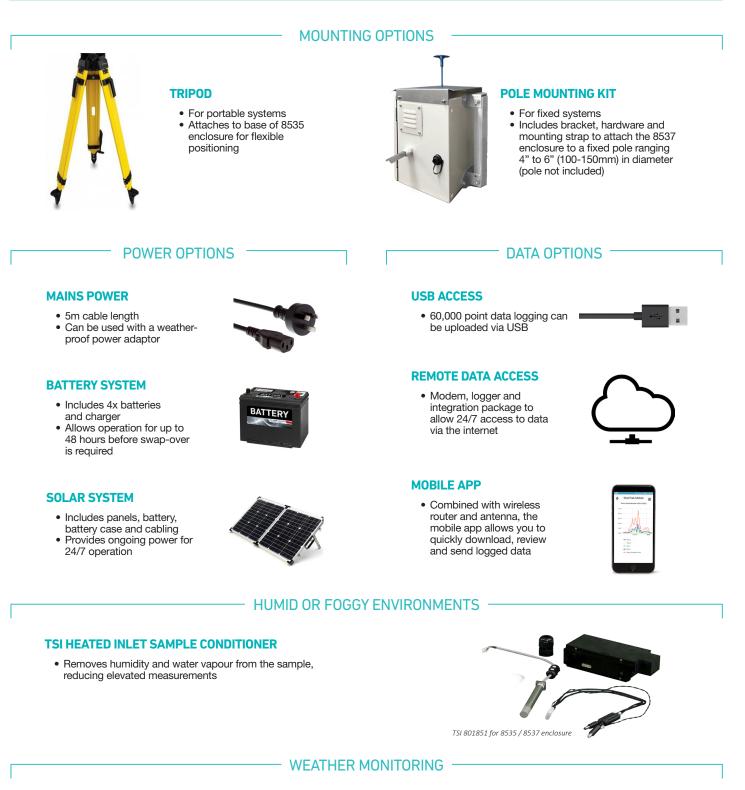
TSI 8535 DUSTTRAK ENVIRONMENTAL ENCLOSURE

Portable systemWeatherproof Pelican enclosure



BOM 8537 DUSTTRAK ENVIRONMENTAL ENCLOSURE

Fixed systemWeatherproof metal enclosure



VAISALA WXT530 SERIES WEATHER TRANSMITTERS

Choose a transmitter that is right for your monitoring needs:

- WXT531 Rainfall
- WXT532 Wind speed, wind direction
- WXT533 Rainfall, wind speed, wind direction
- WXT534 Air pressure, temperature, humidity
- WXT535 Air pressure, temperature, humidity, rainfall
- WXT536 Air pressure, temperature, humidity, rainfall, wind speed, wind direction

For more information on these sensors, refer to page 17



CUSTOM ENVIRONMENTAL MONITORING SYSTEMS

KENSENSE MONITORING SYSTEM

Part of our customised monitoring system range, the KenSense is a lightweight, portable measurement solution with the capacity to configure multiple channels of measurement for dust, aerosol and gas monitoring.

With simple mounting options and a lockable weatherproof enclosure, the system is extremely low maintenance and can be set up where you need it.

Designed and built by our skilled technical team, just tell us what measurements you need and we can build a system to meet your specific monitoring requirements.

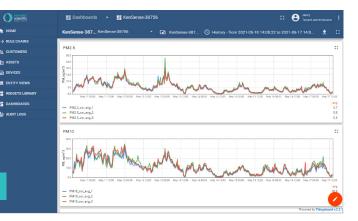
Features

- Simultaneously measurements of PM1, PM2.5 and PM10,
- as well as ambient temperature and relative humidity • Onboard datalogger - data is logged on a removable
- onboard SD card
- Equipped with GPS technology for location data tagging
 Cloud data transmission using cellular communications
 Flexible power options can be powered with mains
- adapter or solar battery system

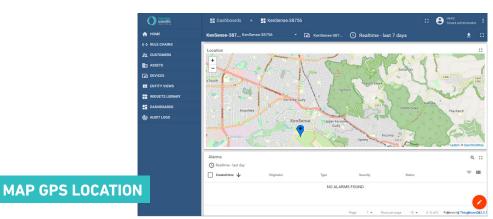
Applications

- · Air quality monitor for smart cities and communities
- · Outdoor environmental monitoring
- Site perimeter monitoring
- Fence-line monitoring
- Dust control operations
- Construction site monitoring
- Urban pollution studies





REAL-TIME AND HISTORICAL CHART



Dust from industrial activities such as milling, construction and demolition, as well as fly ash from coal power generation, can contain toxic substances that can pollute the environment and may be harmful if inhaled, and must be monitored and managed carefully to avoid environmental compliance or health and safety issues.



SENSING PRECISION CEGRIT MK II

The CEGRIT is an Automatic Isokinetic Sampling device that has been used and developed, for over 50 years, to extract fly-ash and dust particle from boiler gas mixtures. Air borne gas particulates, from 5 μ m to 250 μ m, are extracted isokinetically even when stack gas velocity fluctuations occur during the extraction period.

Features

- Visual means of checking sample condition while in operation
- Robust construction and no moving parts making it extremely reliable
- · Easy to install and low maintenance
- Sample capture efficiency rate typically 99%

COMPLIANCE MONITORING

Dust compliance monitoring is essential to ensure that levels of airborne dust in environments such as construction, earthworks and mine sites are measured, and appropriate control strategies employed to meet regulations and minimise risk to workers. Kenelec Scientific provide a range of sampling equipment to help you meet your compliance monitoring requirements and all applicable standards.



KENELEC SCIENTIFIC DUST DEPOSITION GAUGE

Dust deposition gauges offer a low-cost, reliable way of undertaking simple non realtime dust monitoring. Consisting of a glass funnel supported by a glass bottle, the unit require very little maintenance, and do not require any power to operate, so they can be taken and positioned literally anywhere. A custom solution developed in-house by Kenelec Scientific.

Features

- Economical solution for monitoring dust generated from site activities
- Complies with AS NZS 3580.10.1-2003 (R2014)
- Supplied in kit form for easy on-site assembly
- Analysis completed by Envirolab: <u>www.envirolab.com.au</u>



EUROFINS DIRECTIONAL DUST DEPOSITION GAUGE

The Eurofins Directional Dust Deposition Gauge is built for monitoring localised dust levels, measuring dust deposition in 4 directions. Once collected, sample containers can be capped instantly and sent directly to the lab for analysis preventing contamination during transport and the need for sample wash-downs/transfers whilst in the field.

- Designed to be installed over a star picket for easy installation
- Gauge constructed of high quality materials
- Capable of sampling form four directions north, south, east & west.

ULTRAFINE PARTICLE MONITORS

Ultrafine particles (UFPs) are everywhere: polluting the air, eroding our health, and affecting our climate. The first step in cleaning the air of these potentially hazardous particles is to measure them. Kenelec Scientific can offer a range of instruments from handheld spot-checking instruments to research grade instruments suitable for long-term air quality monitoring networks.

HANDHELD UNITS

TSI 8525 P-TRAK ULTRAFINE PARTICLE COUNTER

The 8525 is ideal for measuring workplace ultrafine particulate levels, as well as helping eliminate indoor air quality (IAQ) problems. This portable instrument detects and counts particles smaller than 1 micrometer that often accompany or signal the presence of pollutants.

Features

- Real-time ultrafine particle counter
- Measure particle sizes 0.02-1µm
- Easy to use
- Data log information



LAB / MOBILE UNITS



TSI 3783 ENVIRONMENTAL ULTRAFINE PARTICLE COUNTER

Federal Reference Methods (PM2.5, PM10) and equivalent mass based methods cannot quantify the amount of UFP in the air. The EPC[™] monitor provides quantitative UFP concentration data to supplement mass based and FRM equivalent methods. This freshly engineered water-based condensation particle counter detects ultrafine particles down to 7 nanometres and delivers robust field performance. A good choice for indoor and outdoor ambient monitoring and many other applications that require 24/7 operation.

- 7 nanometre detection with D 50 efficiency curve
- Single particle counting for concentrations up to 106 particles/cm3
- Enhanced zero count stability
- Adjustable sampling intervals down to 1 second

REAL-TIME PERSONAL MONITORS

Accuracy, reliability and portability are key when selecting a personal monitoring device for measuring exposure to potentially harmful levels of substances such as dust, smoke and diesel particulate matter. Overexposure can be detected quickly and preventive measures such as changing ventilation rates and addressing equipment issues can be taken immediately. Real-time monitoring contrasts very favourably with the traditional NIOSH 5040 method involving sample pumps and post-event lab analysis.



TSI AM520 SIDEPAK[™] PERSONAL **AEROSOL MONITOR**

The AM520 is a small, portable, battery-operated, datalogging, light-scattering laser photometer. It provides aerosol mass concentration readings of dust, fumes, mist, smoke and fog within a worker's breathing zone. It is the perfect solution for real-time, personal aerosol sampling in a variety of workplace environments including mining, construction, transportation, confined spaces and general industry where air quality could be an issue.

Features

- · Lightweight, portable, and rugged design
- Robust impactor design for measurement in higher mass concentrations
- Audible and visual alarms; 95dB audible horn and flashing red OLED display
- Large LCD display with back-lighting
 Wearable on a belt loop, or can be mounted to a vehicle or wall

TSI AM520i SIDEPAK[™] PERSONAL AEROSOL MONITOR

Intrinsically safe design for use in

explosive environments.

The new AM520i SidePak™ aerosol monitor provides real-time monitoring of respirable dust exposure with the bonus of intrinsically safe certifications for use in potentially explosive or volatile environments.

Measuring PM10, PM4 (respirable), PM2.5, PM1 and 0.8µm for diesel particulate matter (DPM) exposures, the AM520i combines TSI's proven direct reading measurement technology, portability, datalogging, and long-running batteries with global certifications for use in environments requiring intrinsically safe instrumentation.

- IECEx and ATEX certified
- · Audible and visual alarms
- 0.8 µm DPM impactor
- PM5 China respirable size fraction impactor
- High capacity battery
- Color OLED display



SMOKE MONITORING SYSTEMS

There is an increasing awareness in our community of the hazards posed by smoke and the consequent need to monitor smoke levels. Be it wood smoke from domestic fires, smoke from industrial processes or smoke from bushfires, it is a significant air pollutant. With the knowledge and experience Kenelec Scientific has built up over many years, we have developed a range of smoke monitoring solutions based on different applications our customers have put forward, and can assist you with your own custom system when "off the shelf" isn't enough.



SMOKETRAK MONITORING SYSTEM

Designed principally for tracking of smoke particulate, the system is ideal for applications such as bushfire smoke plume tracking, identification of highly polluting domestic wood fires and for tracking of point sources of particulate matter. The system is fully transportable and can sit in any vehicle, measuring and showing real-time particulate levels, with data then also accessible via the internet.

Features

- Monitors PM1.0, PM2.5, PM4.0, PM10.0 and PMTotal, providing separate measurements for each
- Mapping of mass concentration of particulate matter on a street-by-street (and even-house-by-house) basis
- Visual indications when thresholds are exceeded, and colour indications of smoke levels overlaid on Google Maps giving an instantaneous overview of smoke intensity
- Real-time reporting and data access via the Cloud, data update is typically every minute

SMOKESWITCH MONITORING SYSTEM

Recognising the need for customised solutions, Kenelec Scientific has developed the SmokeSwitch – a unit designed for applications such as computer data centres and large shopping complexes, where high smoke levels in the environment can cause issues. Smoke particles can lead to short circuits in sensitive computer systems and can cause significant discomfort for patrons in public areas.

- Based on AlphaSense OPC-N2 that provides particle counts in 16 bins and PM1.0, PM2.5 and PM10 information
- Supports a wide range of outputs including digital outputs to switch on alarms, analogue outputs for PM2.5, PM10, and ModBus TCP Interface to interface to your BMS
- Housed in a water-proof enclosure making it suitable for outdoor usage
- Fully configurable to your needs and customised to suit your application





WEATHER MONITORING

Accurate and reliable weather data is a key component for many environmental monitoring applications, particularly in the area of pollution monitoring. If the air is calm, pollutants cannot disperse and will build up locally. Also cold, calm weather can result in low level temperature inversions and air pollution such as smoke becomes trapped. Wind strength and direction are important parameters in locating point sources of dust. We offer a range of weather monitoring instruments to cover all important weather parameters and meet your monitoring needs.

WEATHER SENSORS

Kenelec Scientific offer a range of weather sensors for measuring wind speed, wind direction, rainfall, air temperature, relative humidity and barometric pressure. Analogue outputs allow integration with existing control or monitoring systems, however we also offer multi-parameter sensors with digital outputs for more demanding applications.



TEXAS ELECTRONICS TV-4 FOR LIGHT INDUSTRIAL

Features

- Cup wheel diameter 15.3cm
- Anodised aluminium exterior
- Low starting threshold (0.27m/s)

WIND SPEED SENSORS



TEXAS ELECTRONICS TV-100-L320 FOR MEDIUM INDUSTRIAL

Features

- Cup wheel diameter 32cm
- Gold anodised aluminium exterior
- Low starting threshold (0.5m/s)



TEXAS ELECTRONICS TV-114 FOR HEAVY INDUSTRIAL

Features

- Cup wheel diameter 46cm
- Gold anodised aluminium exterior
- Low starting threshold (0.9m/s)



TEXAS ELECTRONICS TD-4 FOR LIGHT INDUSTRIAL

Features

- Overall vane length 21.6cm
- Anodised aluminium exterior
- Low starting threshold (0.27m/s)

WIND DIRECTION SENSORS



TEXAS ELECTRONICS TD-106-5D FOR MEDIUM INDUSTRIAL

Features

- Overall vane length 48cm
- Gold anodised aluminium exterior
- Low starting threshold (0.5m/s)



TEXAS ELECTRONICS TD -104-5D FOR HEAVY INDUSTRIAL

- Overall vane length 85.9cm
- Gold anodised aluminium exterior
- Low starting threshold (1.1m/s)

TIPPING BUCKET RAIN GAUGES



TEXAS ELECTRONICS TR-525I 6" COLLECTOR

Features

- Collection diameter 154mm
- Resolution 0.2mm



TEXAS ELECTRONICS TR -525USW 8" COLLECTOR

Features

TEMPERATURE / HUMIDITY

- Collection diameter 203mm
- Resolution 0.2mm



TEXAS ELECTRONICS TR-525M 9.66" COLLECTOR

Features

- Collection diameter 245mm
- Resolution 0.1mm



TEXAS ELECTRONICS TT-101-QR TEMPERATURE SENSOR RESISTIVE

Features

 Available in four different temperature ranges: -40° to +120°F, -60° to +40°C, -40° to +50°C, +60° to +220°F



TEXAS ELECTRONICS TTH-1315 TEMPERATURE & HUMIDITY SENSOR

Features

CONTROLLERS, DISPLAYS, INDICATORS

- Stacked plate construction of shelter provides natural ventilation
- Quick-release mounting bracket allows for easy installation and maintenance
- Aluminium radiation shield is lightweight and extremely durable

BAROMETRIC PRESSURE



TB-2012M BAROMETRIC PRESSURE SENSOR

Features

- Calibration range 26" to 32" or 878
 mb to 1080 mb
- Can be used at elevations up to 1800 feet (548.64m) above sea level
- Temperature range -18° to +50°C



TEXAS ELECTRONICS 2-200 WIND SPEED SYSTEM

Features

- System consists of a TV-114
- anemometer and a dial indicatorIndicator can be ordered for one of
- two ranges: 0-100 mph and 0-50 m/s



TEXAS ELECTRONICS WSC-5 WIND SPEED ACTIVATED CONTROLLER

Features

- Designed to withstand harsh environments where strong winds can pose a danger
- Control output function (either switchon or switch-off or both) can be set for activation at any desired speed value from 0-100 mph

SOLAR RADIATION



TEXAS ELECTRONICS SP-LITE SOLAR RADIATION SENSOR

- Complies with "Cosine Response"
- Full 180-degree field of view for
- complete hemispheric measurementOptional 4 20mA output available

WEATHER SYSTEMS

Building on the range of weather sensors we have available, we can also offer more advanced weather systems. For example, the weather station data can be integrated with a data logger and data made available via a hosted website or uploaded to the Cloud. Weather data can also easily be integrated into a dust monitoring station, noise monitoring system or with other parameters.

LOW COST WEATHER STATIONS



DAVIS 6250AU VANTAGE VUE® WIRELESS WEATHER STATION

The Davis 6250AU Vantage Vue® Wireless Weather Station gives you all the weather data you need for home use, education, boating and more. Sleek but tough-your outdoor sensor suite sets up in minutes and starts sending data wirelessly to your console anywhere in your home, school, or business.

Features

- · Measures temperature both indoors & outdoors
- Updates every 2.5 seconds
- Opuates every 2.5 seconds
 Wireless transmission up to 300m
 Solar powered with stored energy backup
- Includes the Vantage Vue console display



DAVIS 6152AU WIRELESS VANTAGE PRO2™ WEATHER STATION

The Davis 6152AU Wireless Vantage Pro2™ Weather Station is an economical wireless weather station with a versatile sensor suite that combines a rain collector, temperature and humidity sensors and anemometer into one package.

Features

- Large, backlit 3.5" x 6" (9 x 15cm) LCD screen
 Options available for UV/solar, soil moisture, short and
- long-range repeaters, and much more Fast updates every 2.5 seconds
- Optional WeatherLink data logger and software offer additional analyses in a variety of versions
- Wireless transmission from station to console up to 1,000ft. (300m)



*laptop not included

DAVIS WEATHERLINK 2.0 SOFTWARE

The WeatherLink Cloud Platform allows access to real-time data anywhere, anytime. Build and customize dashboard to receive current data updates from all of your installed sensors, visualise any of your sensor data with custom charts, or access all your raw data via a single interface.

- Available for Vantage Vue and Vantage Pro2 consoles
- · Customise dashboard, chart, mapping and raw data views
- Connect via datalogger to internet or cellular network
- Mobile app available for data on the go

ADVANCED WEATHER STATIONS

VAISALA WXT530 SERIES WEATHER TRANSMITTERS

The WXT530 is a unique series of all in one weather instruments that provides six of the most important weather parameters, which are air pressure, temperature, humidity, rainfall, wind speed and direction. With 6 versions, you can choose measurement parameter combinations that fit for your application.

Features

- Measure up to 6 weather parameters
 Low power consumption; suitable for solar applications
 Compact design, light-weight, single cabling for all measurements and secure one bolt mounting make installation and deployment easy and fast





WXT531 WEATHER TRANSMITTER

Rainfall



WXT532 WEATHER TRANSMITTER

- Wind speed
- Wind direction



WXT533 WEATHER TRANSMITTER

WXT536 WEATHER TRANSMITTER

- Rainfall ٠
- Wind speed ٠
- Wind direction •



WXT534 WEATHER TRANSMITTER

- Air pressure •
 - Temperature
- Humidity



WXT535 WEATHER TRANSMITTER

- Air pressure
- Temperature
- Humidity
- Rainfall



Rainfall Wind speed •

Humidity

Air pressure

Temperature

•

•

•

Wind direction

KENELEC SCIENTIFIC

Our company:

Established in 1962, Kenelec Scientific is one of Australia's leading scientific and environmental technology companies. Based in Melbourne, with distributors located throughout Australia and New Zealand, we are industry leaders in the supply of globally sourced, latest generation technologies at competitive prices.

Our services:

Sales

Buy the latest equipment from some of the most trusted brands in the industry.

Rental

Short and long term hire available on an extensive range of instruments.

Calibration

Professional calibration of your instruments in our accredited laboratories.

Validation

Wide range of validation services to ensure compliance with regulations.

Service & Repairs

Local after-sales service and support from our experienced technicians.

Education

Product education and support available in-house, onsite or online.

Financing

Secure your equipment without relying on up-front capital funding.



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More solutions:

In addition to the options in this catalogue, we also offer a number of other specialised monitoring solutions, as well as being able to build a system to meet your exact requirements. Get in touch or visit our website for more information.

Have you considered renting?

Renting can be a cost-effective solution to ensure you have the tools you need, when you need them.

As one of Australia's leading specialist suppliers of testing and monitoring equipment, Kenelec Scientific stock an extensive range of instruments with no minimum hire period to help your business perform at its best without the financial stress of needing to buy.

All of our units are regularly checked and calibrated by our experienced technicians to ensure accurate and reliable performance, and we are constantly updating our range so you have access to the best equipment in the industry.

We also offer up to 20% off our standard rental rates for instruments you rent while your own unit is being calibrated, and for equipment that is hired long-term.

RENT

Look for the symbol:

We look forward to working with you.

