

CLEANROOM MONITORING CATALOGUE

JUNE 2025



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When your business relies on a cleanroom, it is important to ensure it remains uncontaminated. Correct cleanroom monitoring processes result in less product waste, improved yield, improved product quality and increased profits, without compromising on safety.

Kenelec Scientific offer a range of monitoring solutions to suit the size of your cleanroom, and can assist at all stages of the installation cycle

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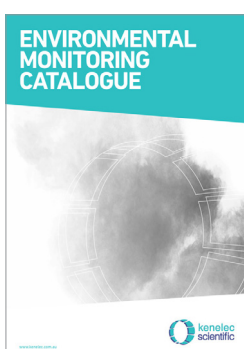
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MORE SOLUTIONS FROM KENELEC SCIENTIFIC



GOT A QUESTION? GET IN TOUCH!

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

+61 3 9873 1022

kenelec.com.au

sales@kenelec.com.au

For full Terms & Conditions, refer to www.kenelec.com.au/terms/

HOW WE CAN HELP

Kenelec Scientific can provide comprehensive installation and commissioning services to meet your facility monitoring requirements, from single particle counters to a full turnkey Facility Monitoring System.

- Remote, Portable and Handheld Particle Counters
- Differential pressure transducers and through-wall sensors
- Room temperature and relative humidity sensors
- System alarm and digital inputs
- Digital, visual, audible, SMS and e-mail alarms
- Centralised redundant vacuum systems
- Computer system with industry-leading FMS software
- Hot-swap redundant computer system
- Customisable system architecture
- Data and software redundancy options
- Interfacing hardware, including wireless options

INSTALLATION & COMMISSIONING

Kenelec Scientific can provide a tailored suite of qualification documents according to your requirements, including the following:

- 21 CFR 11 Compliance Table
- Factory Acceptance Test
- System Configuration Statement
- Functional Design Specification
- Installation Qualification
- Operational Qualification
- Performance Qualification

Kenelec Scientific's expert technical staff can also execute qualification protocols.

QUALIFICATION & VALIDATION

INSTALLATION CYCLE

CALIBRATION & SERVICE

Kenelec Scientific can offer full calibration and maintenance services for your facility monitoring system, saving you time and money. These critical functions ensure that your facility monitoring system remains reliable whilst meeting regulatory demands:

- Calibration and Service Agreements for your entire FMS
- NATA-accredited to perform Particle Counter calibrations under the requirements of ISO 17025
- Temperature, relative humidity and differential pressure calibrations at our Melbourne laboratories or onsite
- On-site preventative maintenance of all facility monitoring system components, equipment replacement and repair
- Backup of system configuration
- Remote support

SUPPORT & TRAINING

The expert technical team at Kenelec Scientific can offer customer support tailored to your needs, as well as user product guidance to ensure your staff are adept in the use of the installed facility monitoring system and instrumentation:

- Initial on-site training for the operation of the facility monitoring system
- Initial on-site training for the operation of portable, handheld and remote particle counters
- On-going refresher training for facility monitoring system
- Group training and workshops at our Melbourne office

CLEANROOM PARTICLE COUNTERS

The TSI range of AeroTrak® handheld, portable and remote aerosol particle counters provide the flexibility and features to confidently monitor your facility, from simple spot checking to meeting rigid cleanroom classification standards. With built-in redundancy to reliably monitor critical processes and demonstrate compliance, eliminate waste, interventions and interruptions. All TSI cleanroom particle counters comply with requirements of ISO 21501-4.

HANDHELD PARTICLE COUNTERS

TSI AeroTrak® Handheld Particle Counters offer many of the same advantages of comparable larger instruments to monitor cleanroom environments. Being lightweight and easy to carry, they are well-suited for cost-effective spot checking and are the ideal way to pinpoint sources of contamination, test filters or perform indoor air quality investigations.

Features

- 0.3 to 25 µm size range
- 0.1 CFM (2.83 L/min) flow rate
- Integrated handle for one hand operation
- Intuitive touchscreen interface
- Removable, rechargeable Li-ion battery
- Sturdy and lightweight

Applications

- Pharmaceutical
- Electronics
- Industrial
- Semiconductor



TSI 9303 AEROTRAK® HANDHELD PARTICLE COUNTER

A low cost and versatile handheld particle counter.

Features

- Up to three channels of simultaneous data
- 1,500 sample record storage
- 250 location labels
- User selectable middle size channel

TSI 9306 AEROTRAK® HANDHELD PARTICLE COUNTER

The most features and flexibility for handheld particle contamination monitoring.

Features

- Up to six channels of simultaneous data
- 10,000 sample record storage
- 999 location labels
- 250 zones
- Mass Concentration option
- Optional Temp/RH sensor



RENT ME

TSI REMOTE PARTICLE COUNTERS AND AIR SAMPLERS

Perfect for monitoring of large cleanrooms or critical environments, TSI AeroTrak® Remote Particle Counters are designed for use with FMS Software in cleanroom monitoring systems or facility monitoring systems. Their small size, flexible power options and wireless capabilities allow installation where space is limited. Worry-free monitoring with best-in-class data buffering reduces risk of data loss during network outages.



TSI 6000 Series AeroTrak®+ with Integrated Pump



TSI 7000 Series AeroTrak®+



TSI 7010 AEROTRAK®+ REMOTE ACTIVE AIR SAMPLER

Provides confident and reliable aseptic microbial monitoring in pharmaceutical manufacturing Grade A and B environments with external vacuum systems.

TSI Remote Particle Counters are available in a variety of:

- Flow rates
- Particle sizes
- Analog output options
- WiFi module available
- VHP-resistant models

Applications

- GMP Controlled Areas
- Isolators
- Restricted Access Barrier Systems (RABS)
- Cleanrooms
- Hospital Pharmacies
- Laboratories
- Industrial
- Aerospace
- Compounding Pharmacies



TSI 6310 / 6510 AeroTrak® Remote Particle Counters with Integrated Pump

PORTABLE PARTICLE COUNTERS

AEROTRAK® + PORTABLE PARTICLE COUNTER A100 SERIES

TSI AeroTrak®+ Portable Airborne Particle Counters (APCs) are ideal for all industries for cleanroom certification, monitoring and specialised tasks including gas testing and filter scanning.

Features

- Flow Rate 1 CFM (28.3 LPM) - 3.5 CFM (100 LPM)
- Channel Sizes 0.3 µm to 10 µm
- (6) user selectable channels

Benefits

- WiFi® enabled connectivity
- Simplify integration into third party systems with 4-20 mA analog particle data output and environmental sensor input options
- Intuitive GUI — requires no manuals to operate, significantly reducing the chance for user error and simplifying monitoring for environmental contamination
- Data integrity (including Annex 1)
- Communication options
- One instrument does it all- classify, monitor, filter scan, gas testing and root-cause analysis
- Highly visible status conditions – LED light bar viewable 20 meters / 360°
- Access user controls for GMP compliance
- Sample the correct volume of gas with built in gas correction factors
- Automated ISO 14644-1 and GMP (EU GMP and China GMP) reporting and instrument workflow with included TrakPro™ Lite Secure Software
- Filter test and investigate mode (both audible and visual)
- ISO 21501-4 calibration compliance
- Fit for purpose – easy to clean, stainless steel housing
- Multiple instrument reporting supported by latest TrakPro™ Lite Secure Software

RENT
ME



TSI 9110 AEROTRAK® PORTABLE PARTICLE COUNTER

Accurate measurement of particles down to 0.100 µm, ideal for testing Class 1 and Class 2 cleanrooms.

Features

- 0.100 to 10.0 µm size range
- Up to eight channels of simultaneous data
- 1.0 CFM (28.3 L/min) flow rate
- Highly repeatable and reliable measurements

Wireless
and wired
**integration with
FMS5 software**
available for
all models

MODELS	9110	A100-31	A100-35	A100-51	A100-55	A100-50
Size Range	0.100 to 10 µm	0.3 to 10 µm	0.3 to 10 µm	0.5 to 10 µm	0.5 to 10 µm	0.5 to 10 µm
Flow Rate	1 CFM (28.3 L/min)	1 CFM (28.3 L/min)	1.77 CFM (50 L/min)	1 CFM (28.3 L/min)	1.77 CFM (50 L/min)	3.5 CFM (100 LPM)
Data Channels	Up to 8	Up to 6	Up to 6	Up to 6	Up to 6	Up to 6
Applications	Semiconductor	Pharmaceutical, Semiconductor, Electronics, Aerospace, Optics, Automotive, Clean Manufacturing	Pharmaceutical, Medical, Manufacturing	Pharmaceutical, Semiconductor, Electronics, Aerospace, Optics, Automotive, Clean Manufacturing	Pharmaceutical, Medical, Manufacturing	Pharmaceutical, Medical, Manufacturing

*A100-(xx) A - "A" suffix adds analog output to any model

ULTRASONIC AIRTIGHTNESS AND LEAK DETECTOR SYSTEM

COLTRACO PORTASCANNER® AIRTIGHT

The Portascanner® AIRTIGHT (Ultrasonic Airtightness and Leak Detector System) is the world's first micro air-leak detector which uses ultrasound to detect, identify and locate air leakage sites. It allows healthcare and pharmaceutical personnel to locate, and then quantify the leaks in hospital wards, cleanrooms, and sterilisation departments to reduce the contamination of pharmaceutical drugs and highly infectious diseases such as Ebola and Covid-19. It is a non-invasive solution, which quickly and effectively detects leaks without interfering with medical staff and patients in a room.

Features

- Identify leak sites with a microscopic level of accuracy
- Measure and quantify leak sites and cross-sectional areas (mm²) using sophisticated algorithm
- Generate a value for the air flow rate (m³/h) through each leak
- Calculate the building or room's overall air permeability (m³/h-m²) and air change rate (ACH)
- Easy to navigate interface
- 7 inch touch screen LCD display, 8MP camera, USB drive stores photographic and quantitative data to generate traceable, exportable reports
- Complement in multiple stages of the door fan test/pressurisation test where there are limitations: highly disruptive, intrusive, costly, unable to find where the leaks are and their extent
- Help to find leaks that could not be found by traditional and alternate methods (thermal cameras, smoke pencils, anemometers, blower door/door fan tests)
- Assist in failure diagnosis and periodic maintenance

Applications

- Positive and negatively pressurised wards
- Operating theatres
- ICU wards
- Isolation rooms, isolator units/isolator tents
- Pharmaceutical clean rooms/sterile processing departments
- High level isolation units (HLIUs)
- Dental surgeries
- HVAC areas and corridors



MICROBIAL SAMPLERS

EMTEK P100 PORTABLE MICROBIAL AIR SAMPLER

With two controlled air sampling rates, the Emtek P100 Portable Microbial Air Sampler can be used to either continuously monitor the environment, or take quick "grab" samples as needed, allowing you to obtain microbial samples with a minimum of interference in your cleanroom.

Features

- Lightweight and portable with long battery life
- Controlled sample rates of 28.3 (1 CFM) and 100 LPM
- Operation via touch screen interface or optional PC based software
- Creation and storage of unique sampling plans
- Delay/Test/Hold functionality
- CFR Part 11 regulatory compliant data control
- 500 sample records storage
- Output to optional label printer, USB, or optional PC based software





REAL-TIME VIABLE PARTICLE COUNTERS

TSI 9510-BD BIOTRAK REAL-TIME VIABLE PARTICLE COUNTER

Truly isolate your aseptic process with the BioTrak® Real-Time Viable Particle Counter. It combines viable particle counting with sample capture capability and ISO-compliant total particle counting to offer a complete solution for pharmaceutical environmental monitoring. Time-tested gelatin filter technology efficiently captures sampled microorganisms for subsequent identification.

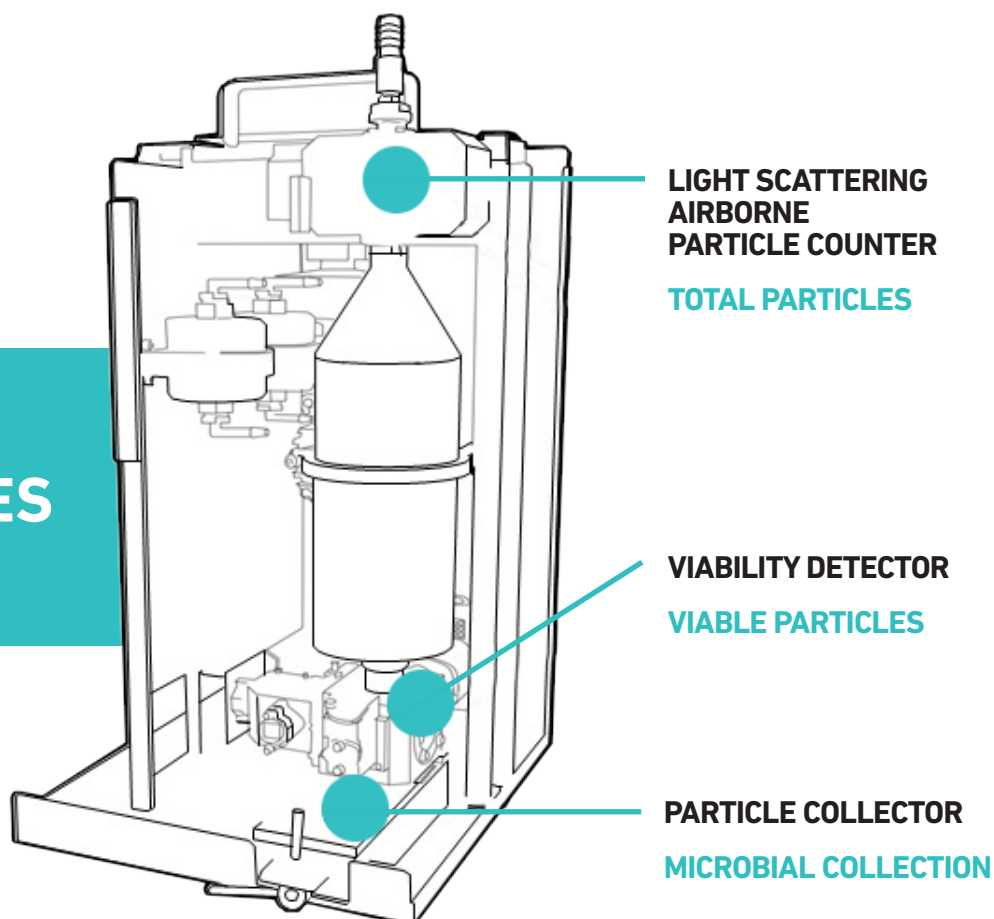
Features

- Detection of airborne viable particles in real-time
- Fully automated process – no media or manual processing
- Simultaneous detection of both total and viable particles
- 1 CFM (28.3 L/min) sample flow rate
- Only requires a single isokinetic probe at the sample site
- In-line particle collection filter
- Intuitive icon driven touch screen Graphical User Interface
- Stainless steel enclosure and HEPA filtered exhaust

Applications

- Continuous automated monitoring of aseptic environments
- Improved root cause investigations
- Room release
- Risk reduction

**THREE
CAPABILITIES
IN ONE**



ENVIRONMENTAL SENSORS

Kenelec Scientific offers custom monitoring solutions by combining highly accurate temperature, relative humidity, differential pressure and gas sensors that can be configured to meet any pharmaceutical or life science application. Below are just some of the sensors we use and recommend.

TEMPERATURE & RELATIVE HUMIDITY SENSORS



- Temperature range from -200 to +200 C
- Relative humidity range from 0-100%
- Accepts any analogue input from external sensors
- Optional local display



Vaisala RFL100 VaiNet Wireless Temperature and Relative Humidity Data Logger

DIFFERENTIAL PRESSURE SENSORS

- Differential pressure range from 0-6225 pascals
- Pressure range in PA or H₂O
- Optional local display



Differential Pressure Monitoring



Vaisala PDT101 Differential Pressure Transmitter

GAS SENSORS

- Wide range of gas sensors and sensor types
- Internal electrochemical sensor or catalytic for combustibles (internal or external)
- Solid state sensor for refrigerants or TVOCs (internal or external)
- RoHS compliant



CET LTP-M Modbus® Transmitter



CET cGas Detector Digital Transmitter

MONITORING SOFTWARE

Integrate your cleanroom particle counters and environmental sensors with state-of-the-art software for a complete continuous monitoring solution, including options from trusted suppliers TSI Incorporated and Vaisala.

TSI FMS5 FACILITY MONITORING SYSTEM

The FMS5 system is an advanced, reliable, and user-friendly monitoring software suite that features a truly distributed architecture. High availability databases and hot standby system failover functionality assures compliance and peace of mind.

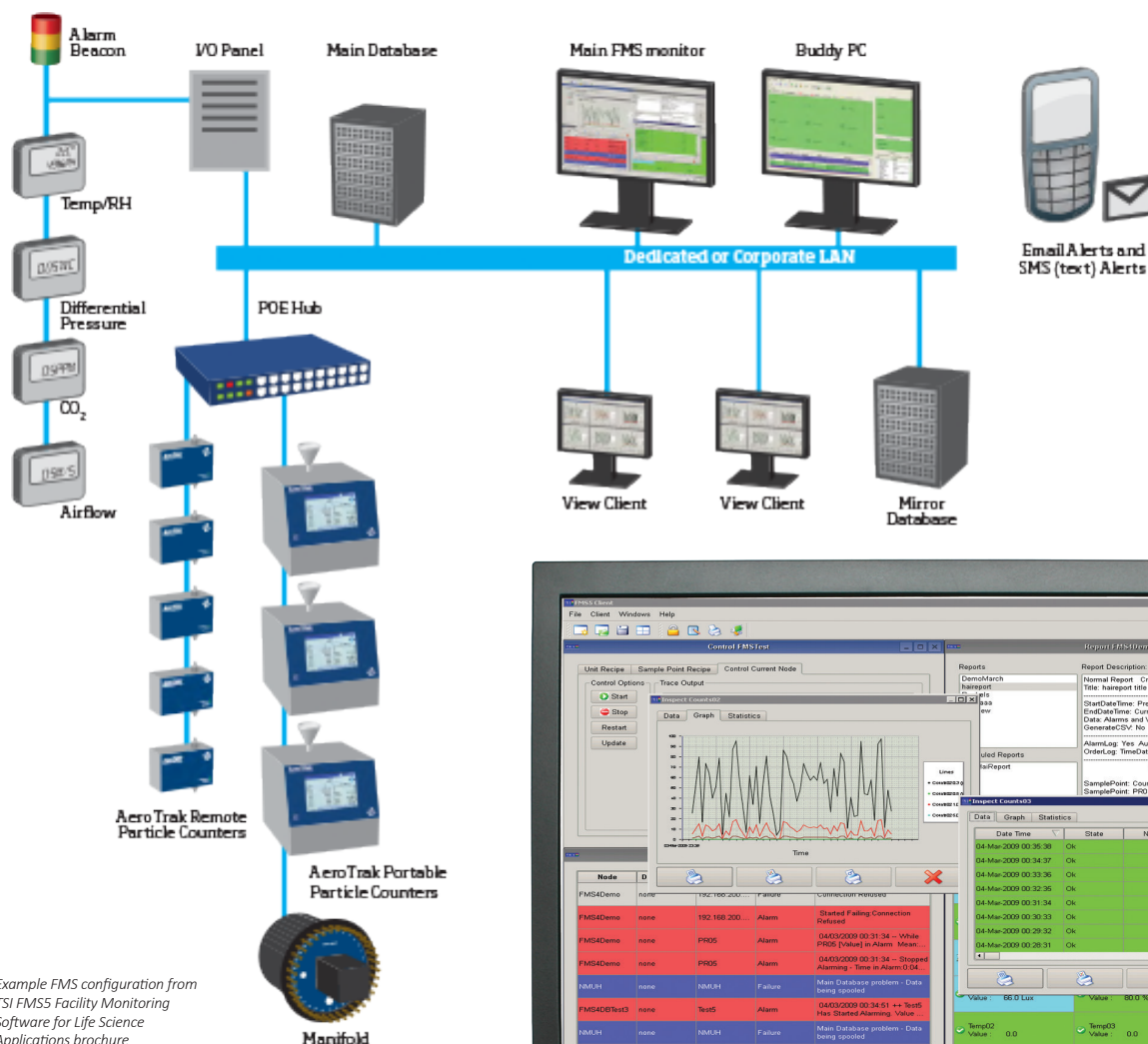
Standard inputs include: airborne particle counters (multiple manufacturers supported), temperature/humidity, differential pressures, air velocity and digital inputs. Any device that has a linear analogue output can be integrated into FMS, including the AeroTrak and BioTrak ranges.

Features

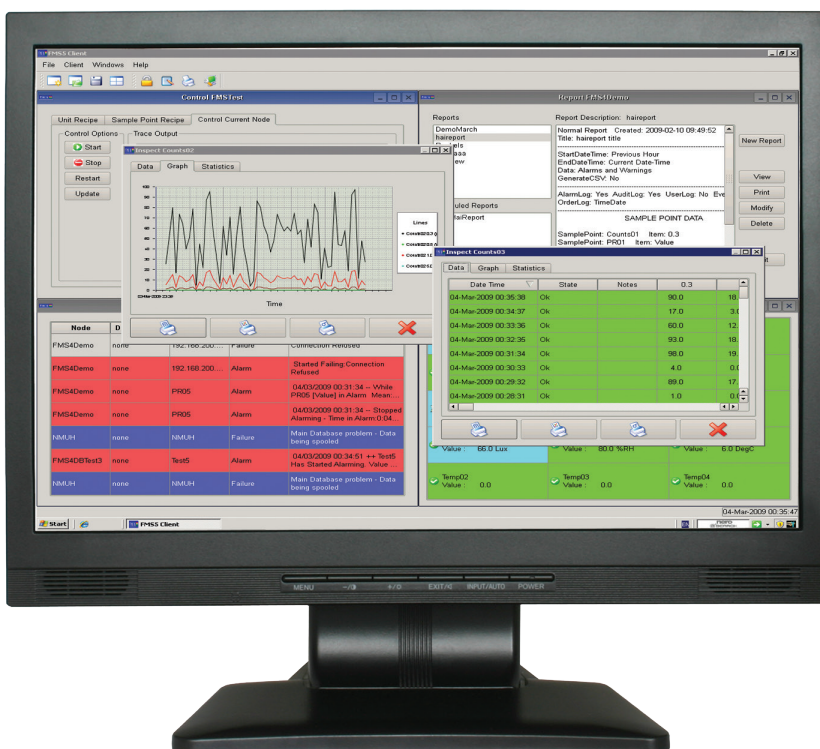
- Built-in system and database redundancy including particle counter data buffer redundancy, real-time mirror database backup and buddy option
- Meets all regulatory guidelines for GMP life science applications
- Intuitive operation to ensure the right information reaches the right people, including alarm display, notification (email, SMS, phone) and acknowledgement
- Demonstrates compliance using powerful user defined reporting, auto reporting and easy data export tools

Applications

- Pharmaceutical Cleanroom Monitoring
- Semiconductor and Hard Disk Drive Cleanroom Monitoring
- Medical Device
- Hospital Pharmacies
- In-Vitro Fertilization Facilities
- EU Tissue and Cell Directive
- Aerospace
- Data Centres
- Operating Theatres
- Compounding Pharmacies



Example FMS configuration from
TSI FMSS Facility Monitoring
Software for Life Science
Applications brochure



VAISALA VIEWLINC MONITORING, ALARMING AND REPORTING SOFTWARE

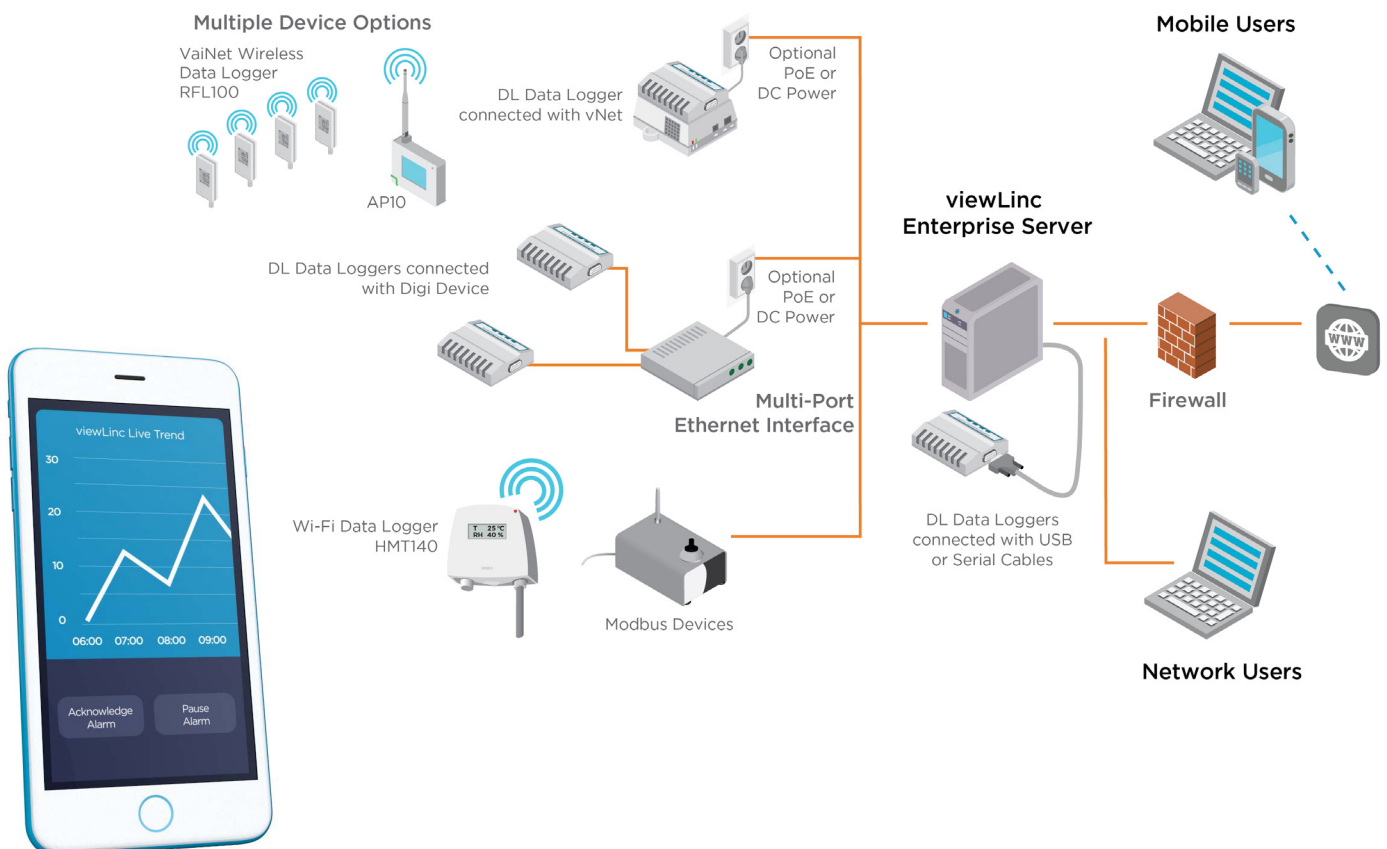
The viewLinc Enterprise Server software monitors temperature, relative humidity, CO2, differential pressure, level, door switches, and more offering low cost of ownership due to easy connectivity to your existing network, remote access, and scalability up to thousands of monitored locations. Multi-site monitoring is simple, global systems can be run off a single server location.

Features

- Software for continuous monitoring of temperature, humidity and other parameters
- Eight language versions, ideal for multi-site use and global monitoring
- Preconfigured and custom reports
- Configurable alarm notifications by email, SMS, or visual and audible alarms
- Scheduled threshold alarming and alarm notification delivery times to accommodate maintenance periods or work shifts
- Interactive tours built-in guidance for first-time users

Applications

- Fridges / Freezers
- Pharma / Biotech / Blood & Tissue
- Semiconductor
- Calibration Labs
- Aerospace
- Data Centres / IT
- Food & Beverage
- Warehouses



WIRELESS COMMUNICATION OPTIONS

Kenelec Scientific can provide you with modern wireless solutions to simplify your installation and reduce the associated labour costs. These solutions are customisable and scalable to your unique application.

SYSTEM OPTIONS

- Standalone wireless temperature and relative humidity data loggers
- A network of analogue input loggers to log such parameters as temperature, humidity, differential pressure, barometric pressure, carbon dioxide, dew point, etc.
- Wireless particle counter options for handheld, portable and remote particle counters
- Entire Facility Monitoring System composed of wireless devices
- Secure Wireless – WiFi, LoRa or VaiNet proprietary protocol

Vaisala HMT140
Wi-Fi Data
Loggers



Vaisala RLF100
VaiNet Wireless
Data Loggers



WIRELESS COMMUNICATION
WITH VAISALA VIEWLINC



TSI 9303 Handheld
Particle Counter



WIRELESS COMMUNICATION
WITH TSI FMS5

TSI 6510 Remote
Particle Counter



TSI 9110 Portable
Particle Counter



TSI AEROTRAK® +
A100 Portable
Particle Counter



WIRED VS WIRELESS

WIRED



- Good for high density installations
- Can be more cost effective for large / greenfields installations



- Extra labour for tubing and wiring
- Vacuum system needs careful planning

VS

- Great for low density and/or multi-building installations
- Easy to install for existing facilities
- Preconfigured at Kenelec Scientific for quick site installation
- Can use existing IT infrastructure to reduce costs



- Requires careful pre-planning and range testing



WIRELESS

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.

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.

Look for the symbol:



FS 605267

Kenelec Scientific Pty Ltd | ABN 88 064 373 717
Unit 4, 18-20 Redland Drive, Mitcham VIC 3132
p 1300 73 22 33 | e sales@kenelec.com.au | w www.kenelec.com.au

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