

Aero Select

Portable, Wide-Range Aerosol Sampler

Unique in air particle sampling the Aero Select is a revolutionary product. Able to detect particles across the entire aerosol range from 2nm to 20µm, particles are collected simultaneously using both inertial deposition and diffusion and separated into 12 sample stages. The Aero Select can be applied to a diverse range of industries from monitoring environmental health and pollution to detecting nano and micron measurements of the airborne chemicals we may encounter each day.

The characterization of size distributions relating to the different chemical constituents of airborne particles is an essential step for many applications including:

- Occupational hygiene
- Environmental research
- Automotive industry
- Atmospheric science
- Nanotechnology
- Microelectronics.

APPLICATIONS

Ideal for use in general purpose scientific applications requiring size, structure, morphology and chemical composition of aerosol particles, the Aero Select can be used for in-situ sampling of airborne particulates in order to assess the risk of exposure.

This technology enables the user to determine concentrations of different particle species when monitoring processes such as combustion, or in ambient studies detecting man-made particles against a background of natural aerosols. This allows low levels of a target substance to be distinguished and can be critical in determining the environmental impact or health risks of exposure.



ANCON Technologies Ltd
Canterbury Innovation Centre, University Road
Canterbury, CT2 7FG, United Kingdom

T: +44 (0) 1227 811 705
E: info@ancontechologies.com
www.ancontechologies.com



ACCURATE PARTICLE SIZE DISCRIMINATION

The Aero Select is built for field use whilst providing the accuracy expected from a laboratory instrument. The 12 classification stages minimise sampling errors caused by turbulence and wall losses and the overall design reduces time and costs associated with analytical testing, ideal for a range of applications.

PORTABILITY

The convenient size and weight of the unit allow easy transportation to the sample location and a 24 hour programmable timer provides the option to auto-start if a delay is needed. Sampling can be continuous or segmented for optimal data collection. An on-board pump and flow meter simplifies installation and eliminates the need for external equipment.

EASE OF USE

The 12 sample stages of the Aero Select are completely accessible to the user without the need to disassemble the instrument. From arrival at the desired sampling location and loading the collection substrates, programming, setting the flow and beginning sample collection takes only a few minutes. Supplied with a set of diffusion and inertial sample collection substrates for use with TEM grids, the substrate holders guarantee proper alignment and positioning, eliminating error and damage to the samples.

SPECIFICATIONS

Particle size (equivalent aerosol diameter):	2nm – 20µm
Number of sizing channels:	12
Flow rate:	20 LPM
Collection ranges:	1-2, 2-5, 5-15, 15-60, 60-250 (nm, diffusion sampler) 0.25-0.5, 0.5-1.0, 1.0-2.0, 2.0-4.0, 4.0-8.1, 8.1-20.0, 20.0-35.0 (µm, inertial deposition)
Collection substrates:	Stages 1-7: Polished glass microscope slides Stages 9-12: Nylon or stainless steel screens
Operating pressure:	1 atmosphere
Operating conditions:	10-40°C, 10-90% RH non-condensing
Power:	85-264 VAC, 47-63 Hz
Dimensions:	36 (W) x 30 (D) x 45 (H) cm
Weight:	11kg
Production:	Manufactured and assembled in the United Kingdom



RELATED PRODUCTS

MR250

A companion product for the Aero Select, the MR250 is used to determine mass-size distributions quickly, eliminating the need for laboratory gravimetric analysis. The mass reader uses the light scattering characteristics of aerosol particles to quantify the masses of samples taken with the Aero Select in the size range of 250 to 3500nm.