

EL-5030 AEROSOL ELECTROMETER: Measurement of charged aerosol particles

The IONER EL-5030 electrometer is an electrometer specially designed for efficient collection of particle charge and measuring ultra-low currents generated by ionized gases and electrically charged aerosols from nm up to sub-microns.

The measuring principle is the collection of charged gases or aerosols and the detection of the current generated by the image charge flowing to a Faraday cage when charged sample flows inside.

Coupled with a DMA, it allows calculating the number concentration of particles or ions.



APPLICATIONS

- Measurement of Particle concentration.
- Instrument calibration in Aerosol Science.
- Charged nanoparticle detection.
- Toxicology of charged nanoparticles.
- Aerosol filter evaluation.

SPECIFICATIONS

Measurement rate	± 1fA-10pA
Resolution	0.1 fA
Noise (RMS)	0.5 fA
Aerosol Flow rate* ¹	10 SLM
Bandwidth	1Hz
Gas inlet connection	¼"
Gas outlet connection	¼"
Weight	5 Kg
Dimensions	300×130×210 mm
Power supply	100-240 VAC/50-60Hz
Max Consumption	60W
Operating temperature	5-40°C
Operating humidity conditions* ²	5-80%
Communications	Ethernet
Software and Labview [®] drivers	Included

*1 Standard Litres Per Minute at 20 °C and 1 Atm.,

*2 Non-condensing

The EL-5030 has been designed to filter and measure ions and charged particles in gas phase. In addition to the hardware specifications, a specific software is provided for data acquisition.