

Multi-technique 150mm hemispherical energy analyser **Service only**



The versatile CLAM4 150mm radius true hemispherical analyser offers guaranteed specifications across a wide range of techniques from Auger to ISS without compromising exceptional performance. The outer casing is manufactured from [Mu-metal](#) giving the highest continuity of magnetic screening and the smallest surface area to minimise outgassing. The variable slit version of the CLAM4 has four different width slits allowing the optimum transmission/resolution to be set.

LN04 lens, large area

The large acceptance angle (up to $\pm 12^\circ$) of the LN04 lens allows efficient collection of electrons and high transmission through the analyser hemispheres. Designed for a 39mm working distance, the lens can be refocused if chamber configuration dictates longer working distances, with minimal reduction of signal. The lens offers variable magnification of x5, x1 and $x^{1/5}$.

LN05 lens, large area, small area, angle resolved

The LN05 lens has selectable apertures in the lens so that the operator can define the analysis area or acceptance angle from the sample. The standard lens configuration has six aperture settings. There are four aperture settings for SAX with increasing size of analysis area and one aperture setting for angle resolution. In addition there is an open aperture setting for use in large area XPS, UPS and AES.

Multi-channel detector option

The CLAM4 is available with either a single channel detector or a 9-channel array, connected through a single multi-pin feedthrough. The pre-amplifier is located in the cable to ensure the closest possible coupling to the detectors. The pre-amplifier uses a Programmable Array Logic chip with First In, First Out buffers to reduce the dead-time of each channel pre-amplifier to $<17\text{ns}$, allowing very high count rates to be achieved.

Computer control

The CLAM4 is complimented by Thermo VG Scientifics [VGX900](#) data acquisition and processing software. This allows the analyser to be under complete or partial computer control.