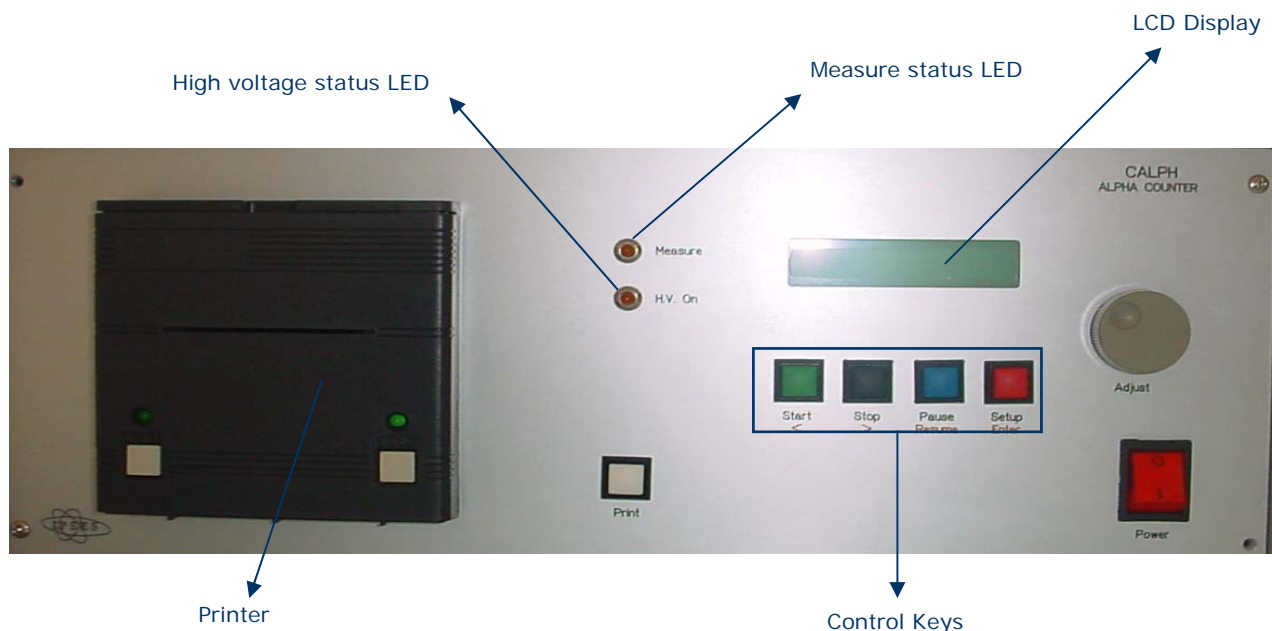


## Calph: alpha particle counting system



The alpha particle counting system **Calph** is a stand-alone alpha counter used for accurate alpha dose measurements. It is especially conceived for dating application in thermoluminescence analyses. A 42 characters per line impact dot matrix printer is integrated on the front panel to print measure reports.

**Calph** is equipped with a two single-channel analysers with adjustable LLD values and a time coincidences unit which allow to discriminate decays of Th232 chain, rejecting fast coincidence pairs due to U238 chain. Besides, it is equipped with an integrated High Voltage power supply for Photomultiplier.



Calph can be furnished together with all the necessary tools for a complete alpha counting laboratory:

- Sample holder/detector with housing for photomultiplier tube and scintillator discs, equipped with light safe enclosure and high voltage lock to prevent damages caused by accidental opening
- Photomultiplier tube equipped with divider and cables
- ZnS scintillator discs on mylar



## TECHNICAL FEATURES

**Power supply:** 230 Vac +/- 10% 50Hz  
(on request, it is available with any supply voltage)

**Max Consumption:** 50 VA

**Operating temperature:** 0-50°C

**Operating humidity:** 10%-80%

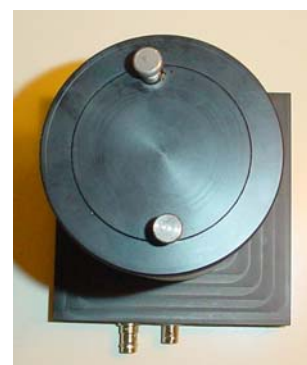
**Dimensions:** control unit: 470,8 mm x 191,6 mm x 312,6 mm (h x l x p)  
PMT housing: 220 mm height – base: 140 mm x 140 mm

**Discriminator:** smart-time coincidence unit. Possibility to set width and delay of the time coincidence window to differentiating between the alpha activities of two different radioisotopic chains (i. e. to evaluate the ratio of  $\text{Th}^{232}$  and  $\text{U}^{238}$  alpha activity in a sample).

**Printer:** integrated 42 characters per line impact dot matrix printer. The printer has a speed of 1.0 lines/sec. The print method is impact shuttle. It prints measure reports with values in *cpm*.

**Local Display:** 2 lines of 20 characters per line.

**HV power supply:** integrated to supply PM tube. Voltage output up to -1.995 Volt, max 2mA.



## Contacts

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