

MULTIPLE ALPHA COUNTER

○ FOR MEASUREMENTS OF ALPHA ELEMENTS
IN THE LABORATORY

□ APPLICATIONS

- Routine counting in the laboratory on :
Sampling filters,
Scintillating flasks,
And other sources of alpha
radiation.



- Modular apparatus with a drawer unit as its basic element.
- The drawer units comprises the photomultiplier and the electronics associated with it for the counting of the photons produced by a scintillating device.
- 1 to 3 drawers may be brought together in a rack..
- 1 to 4 racks may be controlled by the PC.
- Display of the sampled volume and the instantaneous flow rate.
- The instrument is controlled by software running on a PC.
- Parameter setting and data reading by *CAM* software.

Specifications



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SPECIFICATIONS

FEATURES OF THE DRAWER UNIT

Sample dimensions
Maximum useful diameter : 70 mm
Maximum useful height : 200 mm

Sensor used :

photomultiplier Philips photonique XP6302B
photocathode diameter : 76 mm
photocathode sensitivity : 100 μ A.lm⁻¹.
Maximum sensitivity wavelength : 400 nm.
Background noise < 1 counts / hour @ 20°C (bare photomultiplier)
Voltage divider : Philips photonique VD202B
Shielding : Philips photonique MS133
Maximum activity : 10 000 Bq

High Voltage

Compound filled high voltage power supply
Voltage range (600 to 1350V)
Voltage adjustment by software

Counting pulses are totalized locally by a counter
Test : DEL emitting in the red area placed into the drawer excites the photomultiplier

Display

Multicolor LED to indicate counter state (Busy)
3 ½ digit High Voltage display.

Casing :

aluminium
Dimensions of the drawer : 142 x 394 x 232 mm (w x h x d)
Weight : 5 kg.

FEATURES OF RACK

Capacity : from 1 to 3 drawers

Functions :

Power supply of drawers.
Management of drawer electronic.
USB Link to Pc

Power supply :

230 Volts 50Hz
UPS recommended

Casing :

aluminium
Dimensions of the drawer : 470 x 540 x 440 mm (w x h x d)

Environment :

Protection index: IP31
Storage temperature : - 20°C to + 60°C
Working temperature : 0°C to + 40°C
Recommended working temperature : 20°C

CONTROL OF THE DRAWER UNITS :

Standard PC with USB transmission capability.
Windows XP, Vista
CAM software managed

Software :

ALGADE **CAM** software may managed up to 4 Drawers.

High voltage power supply adjustment
Counting time
Repetition of counting sequences
test LED function

calibration function for determination of optimum high voltage power supply.

Date files management

CAM instruments are delivered with :

- Rack with specified number of drawers
- Dedicated PC with **CAM** software installed
- Power supply cable 230 V,
- USB cable,
- Manuals,
- Calibration certificate.