Innovator In Spectroscopy Equipment

# GAMMA COUNTER
# MODEL GC2217

CsI(Tl)
1"x2.5"


CsI(Tl)
2"x3"


## Crystal type
## CsI(Tl)

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## Features:

- Scintillation Crystal: CsI(Tl)
- Photo Multiplier Tube: 10 stage (Hamamatsu)
- Voltage Divider: Integral 12 M Ohm
- Adjustable Resistance: 5 M Ohm
- Connector: BNC
- Background CPM: 11300 @ 650V
- Voltage Range 450 V - 750 V
- Gamma Energy Range: 30 to 5000 KeV

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## Description:

This detector is a great general purpose Gamma counter, it has two versions. In the first version, crystal is a Ø1"x2.5" CsI(Tl) and in the second version, crystal is Ø2"x3" CsI(Tl). Crystal is coupled to a PMT with integral voltage divider, the whole package is housed in a spun aluminium housing and neatly capped off with an aluminium cap, silver plated BNC connector and adjustable resistor rotating wheel. Surface finished in a hard wearing made of electrostatically applied epoxy black coating.

Photomultiplier Tube (PMT) modules combine a PMT with voltage divider. A variety of PMT modules are available which differ in output signal format (current or voltage), spectral response. 8mm Current Output types feature low ripple noise and fast settling times. 15mm Voltage Output types feature 15mm head-on photomultiplier tubes and 0.1V/μA 200 kHz amplifiers. Current Output type is a high gain (10) PMT module suitable for use in broadband spectrophotometers and other precision photometric instruments. Rectangular active area PMT modules deliver high sensitivity with gains as high as 10 and fast response times.

Suitable for low-gamma-level detection applications, the photomultiplier tube (PMT) provides extremely high sensitivity and ultrafast response. PMTs consist of a photocathode followed by a series of dynodes and an electron collector (anode) in a highly evacuated glass or metal that can be enveloped. When light enters the photocathode of a photomultiplier tube, photoelectrons are emitted from the photocathode. These photoelectrons are multiplied by secondary electron emission through the dynodes and then collected by the anode as an output pulse. The gain of the PMT, that is the ratio of anode output current to the photoelectric current from the photocathode, is directly related to the supply voltage. PMTs generally operate with a bias between photocathode and anode of 500V to about 1200V DC or higher. The photocathode composition determines the spectral response, the quantum efficiency at each wavelength, the overall uniformity of photomultiplier sensitivity, and the dark current.

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## Application:

- Environmental Monitoring
- Geophysics
- Industrial
- Nuclear Medicine
- Security Control
- HEP and Astrophysics
- General Purpose Gamma Counting
- Area Monitoring
- Laboratory Radiation Measurement
- Personal Safety
- Gamma Level-meter
- Gamma Gate

## Performance:

- Operating Temperature: +5°C to +50°C.
- Storage Temperature: -20°C to +50°C.
- Weight - Version 1(g): 850
- Weight - Version 2(g): 1250
- Dimensions - Version 1(mm): Ø50x220
- Dimensions - Version 2(mm): Ø58x265

## Standard Accessories:

- Gamma Counter
- Delivered in Hard Case with Foam Inserted

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کنترل فرایند پاسارگاد