Innovator In Spectroscopy Equipment

GAMMA DETECTOR
MODEL GD2317

3”x3”

63mmx63mm

2”x2”

40mmx40mm

Optional Cable

CsI(Tl)

NaI(Tl)

BGO

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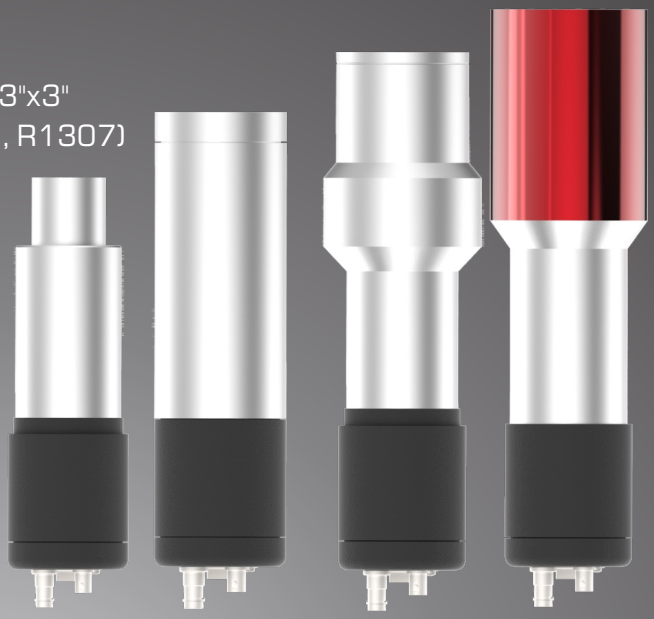
GAMMA DETECTOR MODEL GD2317

Features:

- Scintillation Crystal: NaI(Tl), CsI(Tl), BGO
- Size of Crystal: Ø40x40 mm, Ø2"x2", Ø63x63 mm, Ø3"x3"
- Photo Multiplier Tube: 10 stage (Hamamatsu R1306, R1307)
- Voltage Divider: Integral 12 M Ohm
- Connector: BNC for Signal, SHV for HV
- Background CPM: Vary from 90-400 cps (0.1 Sv)
- Voltage Range 450 V - 1200 V
- Gamma Energy Range: 30 to 3000 KeV
- Charge Sensitive PreAmplifier (14 mV/pc-1.4mV/pc)
- Decay Time from 50-500 sec
- NaI(Tl) Resolution @662 KeV: <7%
- CsI(Tl) Resolution @662 KeV: <8%
- BGO Resolution @662 KeV: <10%



Description:

This detector is a great general purpose Gamma detector. It has several versions based on size and type of crystal. Scintillation Crystal types are NaI(Tl), CsI(Tl) and BGO and their size are Ø40x40 mm, Ø2"x2", Ø63x63 mm and Ø3"x3". Crystal is coupled to a PMT with integral voltage divider and charge sensitive preamplifier, the whole package is housed in a spun aluminium housing and neatly capped off with an aluminium cap, silver plated BNC and SHV connector. 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). 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.

CFP Charge sensitive preamplifier gain is 13mV/pc and the decay is 50-500 µsec.

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Application:

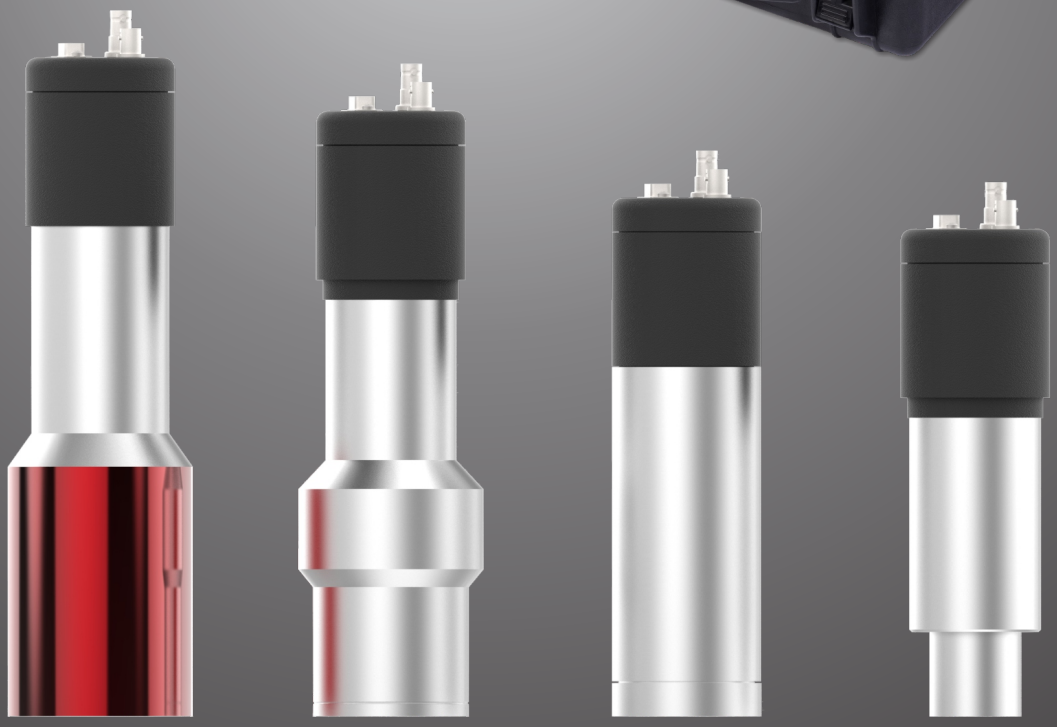
- Environmental and Area Monitoring
- Geophysics
- Industrial
- Nuclear Medicine
- Security Control
- HEP and Astrophysics
- General Purpose Gamma Counting
- Laboratory Radiation Measurement
- Personal Safety
- Gamma Spectroscopy System
- Gamma Gate

Performance:

- Operating Temperature: +5°C to +50°C.
- Storage Temperature: -20°C to +50°C.
- Weight - Version 1(NaI): 0.7, 1, 1.5 and 2.2 Kg
- Weight - Version 2(BGO): 1.4, 2, 3 and 4.5 Kg
- Weight - Version 2(CsI): 0.8, 1.2, 1.9 and 2.5 Kg

Standard Accessories:

- Gamma Detector
- Delivered in Hard Case with Foam Inserted




کنترل فرایند پاسارگاد