



Innovator In Spectroscopy Equipment

GD2317



- Hp(0.07)
- Hp(10)
- H*(10)



**GAMMA DETECTOR
MODEL GD2317
1.6", 2", 2.5" & 3"**

www.cfp.co.ir



CATALOG



DOSIMETERS



FREE DOWNLOAD

GAMMA DETECTOR

MODEL GD2317 1.6", 2", 2.5" & 3"

Features

- High efficiency
- High speed detection
- Preamp integral with detector
- Extreme sensitivity to gamma rays
- High sensitivity and uniform response
- Continuous operation under severe environmental condition
- Rugged integrated NaI(Tl), CsI(Tl) and BGO detectors in tough aluminum housing available in 1.6" x 1.6", 2" x 2", 2.5" x 2.5" and 3" x 3" sizes
- Durable, Versatile
- Very high counting rate
- Splash resistant design
- Wide temperature range
- Ready for field operation
- Decay time from 50 - 500 μ sec
- Special rugged design to withstand typical field usage

Extreme sensitivity to gamma rays



Description

The GD2317 from Control Farayand Pasargad (CFP) is a great general purpose gamma detector. It has several versions based on size and type of crystal. The GD2317 Scintillation crystal types are NaI(Tl), CsI(Tl) and BGO and their size are 40mm x 40mm (1.6" x 1.6"), 2" x 2", 63mm x 63mm (2.5" x 2.5") and 3" x 3". Crystal is coupled to a PMT with integral voltage divider and charge sensitive preamplifier, the whole package is housed in a spun aluminum housing and neatly capped off with an aluminum 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 generally operate with a bias between photocathode and anode of 500V to about 1200V DC or higher. CFP Charge sensitive preamplifier gain is 13mV/pC and the decay is 50 - 500 μ sec.

Specifications

UNIT:GD2317				
Type	1.6" x 1.6"	2" x 2"	2.5" x 2.5"	3" x 3"
Detector	NaI(Tl), BGO, CsI(Tl)			
Input(s)				
-HV	HV bias -450 to -1200V DC, SHV connector			
Output(s)				
SIGN	Preamplifier output: tail pulse with negative polarity; ~ 600 ns rise time and ~ 700 μ s fall time, BNC connector			
RS232 port	+12V DC, ground, 9 pin Sub D connector			
Control(s)				
-HV	High voltage bias adjustable -450 to -1200VDC, SHV connector			
Indicator(s)				
Indicator	No indicator			
Performance				
Resolution FWHM @ 662 keV	NaI(Tl) < 6.5% BGO < 9% CsI(Tl) < 7%	NaI(Tl) < 7% BGO < 10% CsI(Tl) < 8%	NaI(Tl) < 7.2% BGO < 10.5% CsI(Tl) < 8.5%	NaI(Tl) < 7.5% BGO < 10.8% CsI(Tl) < 9%
Energy rang	20 – 3000keV			
Detector				
Gamma detector	NaI(Tl), BGO, CsI(Tl)			
PMT	14-pin 10-stage PMTs (Hamamatsu R1306, R1307)			
Measurement/Spectrum				
High voltage	-450 to - 1200V ,Negative			
Energy calibration	Linear calibration			
Digital Signal Processing				
Charge sensitive pre-amplifier gain	1.4 - 14mV/pC			

Application

- Geophysics
- Gamma gate
- Security control
- Nuclear medicine
- Industrial gauging
- Customs and border patrols
- Environmental and area monitoring
- Health physics
- Isotope identification
- Teaching and research
- General purpose gamma counting
- Construction of spectrometric systems for laboratory and industrial purposes

Electrical, Mechanical and Environmental





Unit:GD2317				
Type	1.6" × 1.6"	2" × 2"	2.5" × 2.5"	3" × 3"
Electrical				
Power required	HV bias +450 -1200V DC			
Physical				
Housing dimensions (Ø × H)	57.8mmx 221mm	57.8mm x 228mm	83.2mm x 295mm	83.2mm x 305mm
Weight	Nal(Tl): 0.7 kg BGO: 1.4kg CsI(Tl): 0.8kg	Nal(Tl): 1kg BGO: 2kg CsI(Tl): 1.2kg	Nal(Tl): 1.5kg BGO: 3kg CsI(Tl): 1.9kg	Nal(Tl): 2.2kg BGO: 4.5kg CsI(Tl): 2.5kg
Environmental				
Storage temperature	-20°C to 50°C			
Operating temperature	5°C to 50°C			
Relative Humidity	10 to 70%			

Software





The device doesn't have any software

Ordering info





GD2317-Nal 1.6" Standard package includes

Part #	Image	Description
GD2317-Nal 1.6" main		Integrated 1.6" x 1.6" NaI(Tl) detector
ACCE2317001		CD user guide (1 Pack)
ACCE2317003		Guarantee (one year)
ACCE2317007		Protective Rugged Hard case





GD2317-Nal 2" Standard package includes

Part #	Image	Description
GD2317-Nal 2" main		Integrated 2" x 2" NaI(Tl) detector
ACCE2317001		CD user guide (1 Pack)
ACCE2317003		Guarantee (one year)
ACCE2317007		Protective Rugged Hard case





GD2317-Nal 2.5" Standard package includes

Part #	Image	Description
GD2317-Nal 2.5" main		Integrated 2.5" x 2.5" NaI(Tl) detector
ACCE2317001		CD user guide (1 Pack)
ACCE2317003		Guarantee (one year)
ACCE2317007		Protective Rugged Hard case





GD2317-Nal 3" Standard package includes

Part #	Image	Description
GD2317-Nal 3" main		Integrated 3" x 3" NaI(Tl) detector
ACCE2317001		CD user guide (1 Pack)
ACCE2317003		Guarantee (one year)
ACCE2317007		Protective Rugged Hard case





GD2317-BGO 1.6" Standard package includes

Part #	Image	Description
GD2317-BGO 1.6" main		Integrated 1.6" × 1.6" BGO detector
ACCE2317001		CD user guide (1 Pack)
ACCE2317003		Guarantee (one year)
ACCE2317007		Protective Rugged Hard case





GD2317-BGO 2" Standard package includes

Part #	Image	Description
GD2317-BGO 2" main		Integrated 2" × 2" BGO detector
ACCE2317001		CD user guide (1 Pack)
ACCE2317003		Guarantee (one year)
ACCE2317007		Protective Rugged Hard case





GD2317-BGO 2.5" Standard package includes

Part #	Image	Description
GD2317-BGO 2.5" main		Integrated 2.5" × 2.5" BGO detector
ACCE2317001		CD user guide (1 Pack)
ACCE2317003		Guarantee (one year)
ACCE2317007		Protective Rugged Hard case





GD2317-BGO 3" Standard package includes

Part #	Image	Description
GD2317-BGO 3" main		Integrated 3" × 3" BGO detector
ACCE2317001		CD user guide (1 Pack)
ACCE2317003		Guarantee (one year)
ACCE2317007		Protective Rugged Hard case





GD2317-Csl 1.6" Standard package includes

Part #	Image	Description
GD2317-Csl 1.6" main		Integrated 1.6" × 1.6" Csl(Tl) detector
ACCE2317001		CD user guide (1 Pack)
ACCE2317003		Guarantee (one year)
ACCE2317007		Protective Rugged Hard case





GD2317-Csl 2" Standard package includes

Part #	Image	Description
GD2317-Csl 2" main		Integrated 2" × 2" Csl(Tl) detector
ACCE2317001		CD user guide (1 Pack)
ACCE2317003		Guarantee (one year)
ACCE2317007		Protective Rugged Hard case

GD2317-Csl 2.5" Standard package includes








Part #	Image	Description
GD2317-Csl 2.5" main		Integrated 2.5" × 2.5" Csl(Tl) detector
ACCE2317001		CD user guide (1 Pack)
ACCE2317003		Guarantee (one year)
ACCE2317007		Protective Rugged Hard case

GD2317-Csl 3" Standard package includes

Part #	Image	Description
GD2317-Csl 3" main		Integrated 3" × 3" Csl(Tl) detector
ACCE2317001		CD user guide (1 Pack)
ACCE2317003		Guarantee (one year)
ACCE2317007		Protective Rugged Hard case

* =we stand behind our products. We guarantee your satisfaction in the quality of our instruments by providing a complete one-year warranty covering any defect of workmanship, material, and/or design. If our products do not perform, we will provide complete repair and/or replacement. for guaranty conditions, please refer to manual device (GD2317 - Manual)

Optional accessories and services

Part #	Image	Description
ACCE2317004		Installation
ACCE2317005		Training
ACCE2317006		Re-calibration services
ACCE2317002		Device Box with Foam Inserted`
ACCE2317010		RG58 , 50Ω cable with two BNC male plugs
ACCE2317011		RG59 , 50Ω cable with two SHV male plugs
ACCE2317012		RS232 cable

** = The proper maintenance & calibration of your instruments is critical to ensure proper performance & accuracy. for Re-calibration (Interval) services, please call with CFP company (021- 46045383)

Matters need attention:

1. Each detector is thoroughly tested before shipping and comes with a 12 months guarantee, we are responsible for the repair, replacement within the warranty period, and provide technical support. Please don't disassemble the detector by yourself, in case of any questions please contact us.
2. The packaged product allows to transport by cars, trains, airplanes, ships and other transportation vehicles, transportation should prevent severe shock, severe vibration, and rain.
3. Scintillation detector should be stored in a cool, dry environment.
4. Please pay attention to the input voltage value and polarity, improper input voltage will lead to the detector does not work and even damage.
The cable should be correctly connected to the connector, incorrect connection may lead to detector damage.