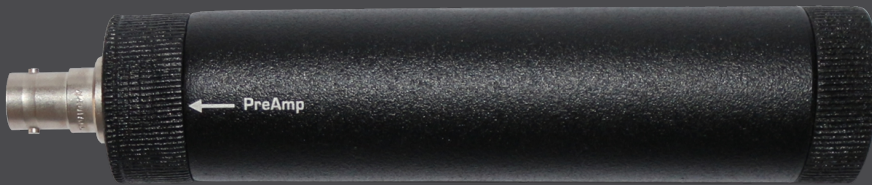




Innovator In Spectroscopy Equipment

## CHARGE SENSITIVE PREAMPLIFIER MODEL CSP2117



Hi Gain  
1.45Volts/pC



Mid Gain  
0.14Volts/pC



Low Gain  
14mVolts/pC  
1.4mVolts/pC

### Optional Cable





Innovator In Spectroscopy Equipment

## CHARGE SENSITIVE PREAMPLIFIER MODEL CSP2117

### Features:

- Single Channel Charge Sensitive Preamplifier
- Three Versions Based on Gain (High, Medium and Low )
- High Gain: 1.45 Volts/pC or 64 mV/MeV(Si)
- Medium Gain: 0.14 Volts/pC or 6.2 mV/MeV(Si)
- Low Gain: 14 mVolts/pC and 1.4 mVolts/pC
- Output Impedance: 50 ohms
- Output Offset: +200 to -200 mVolts
- Maximum Charge Detectable per Event:
- $-1.3 \times 10^7$  to  $1.3 \times 10^{10}$  electrons (2.1 pC - 2.1 nC)



### Description:

CFP Charge sensitive preamplifiers (CSPs) can be used to read out pulse signals from radiation detectors as diverse as semiconductor radiation detectors (e.g. CdTe, CZT), scintillator-photodiode detectors, gas-based detectors such as ionization chambers and proportional counters, and photomultiplier tubes (PMTs).

CFP offers three different charge sensitive preamplifier modules: High, middle and low gain preamplifier. These preamplifiers are all modules of the same size. They differ from each other primarily by their gain, with the high gain version having the highest gain 1.45 Volts/pC, The middle gain version is approximately a factor of 10 reduced (0.14 Volts/pC ).and the low gain version have two level of 14 mVolts/pC and 1.4 mVolts/pC.

Selecting a suitable preamplifier is depending on your application and needed gain. High gain preamplifier is suitable to be used with various types of radiation detectors including semiconductor detectors (e.g. CdTe and CZT), p-i-n photodiodes, avalanche photodiodes (APDs), and various gas-based detectors (proportional detector, wire drift chambers, Bf3, He3). Midum gain amplifiers could be used with surface barrier or PIPS detectors and low gain amplifiers could be used with silicon photomultiplier (SiPM or MPPC) detectors and PMTs.

### Application:

- Semiconductor detectors (e.g. HPGe, Ge, CdTe, Hgl2 and CZT)
- PIN photodiodes
- Avalanche photodiodes (APDs)
- Gas-based detectors
  - Proportional detector
  - Wire drift chambers, Bf3 and He3
- Surface Barrier or PIPS detectors
- Silicon photomultiplier (SiPM or MPPC) detectors
-



Innovator In Spectroscopy Equipment

## CHARGE SENSITIVE PREAMPLIFIER MODEL CSP2117

### Performance:

- Operating Temperature: -40°C to +85°C.
- Weight -All Versions: 260 g
- Dimensions: Ø23x65 mm
- Cable Length: 60 cm
- Connectors:
  - Input: BNC and SHV
  - Output: 6-pin LEMO

### Standard Accessories:

- Gamma Detector
- Delivered in Hard Case with Foam Inserted





کنترل فرایند پاسارگاد