Models PA-1210

Scintillation Voltage Divider/Preamplifier (GSP-1000)

The PA-1210 is for use with scintillation detectors coupled to 12-pin, 10-stage photomultiplier tubes (PMTs). The PA-1210 is a plug-on PMT base/voltage divider that includes the same preamplifier contained in the Saint-Gobain GSP-1000, configured in a compact package with an optimized voltage divider. The plug-on models are easy to connect. You simply push the PA-1210 onto the 12-pin PMT base. The PA-1210 contains a charge-sensitive preamplifier for use in detection of X-rays, gamma rays, charged particles and neutrons.

Standard Features -

- Aluminum housing
- RoHS compliant
- Mount directly to a 12-pin base of a PMT or radiation detector.
- Optimized to work with Saint-Gobain Crystals standard detectors.



Voltage Divider Specifications -

- Positive HV max: 1500V
- Total divider resistance: 4MOhm (nominal) if gain potentiometer set to minimum
- Anode load resistor: 1MOhm (nominal)
- HV gain range adjustment: Varies with PMT applied HV between 80% and 100% of applied high voltage
- HV gain and focus: Lockable screw driver adjustable potentiometers.
- Signal connector: BNC
- High voltage connector: SHV
- Preamp power connector: Lemo EHP.OS.302.CLL or equivalent
- Supplied preamp power cable: 10 feet with Amphenol (9) PIN "D" Connector
- Voltage ratio cathode to dynode 1 is 2R
- Maximum operating temperature: -20°C +60°C

Compatible Photomultiplier Tubes			
Size	Electron Tubes Model	Hamamatsu Model	Photonis Model
1.5"	9102	R980	XP2012
	9902	R580	XP2013
	9903	2060	XP2040
			XP2052
			XP2060
			XP2072

Preamplifier Specifications -

- · High input impedance
- Nominal Charge sensitivity: 2.66 mV/pC
- Decay time constant: 50µS (other time constants are possible.)
- Power requirements: ±12VDC @less than 10mA
- Rise time (square input): ~10nS
- Cable driving capability: <750 feet
- Output impedance: 50 Ohms
- Charge rate capacity over 6µC/sec

Options -

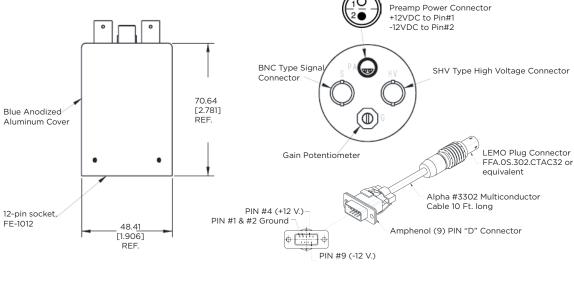
- High voltage connector: SHV or MHV
- Signal connector: Other types available upon request
- Conformal coating for high humidity applications
- Negative high voltage option available (Model PA-1210N)
- Charge sensitivity: Other gains as up to 50 mV/pC
- Output impedance: 50 ohm, 93 ohm or capacitor coupled
- Other preamp power cable lengths available upon request

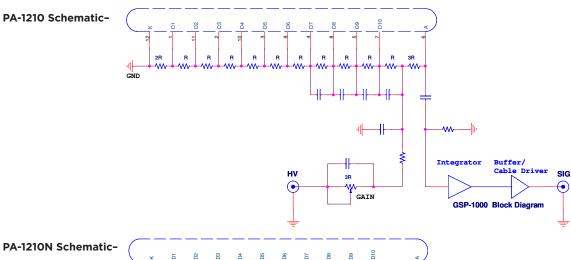


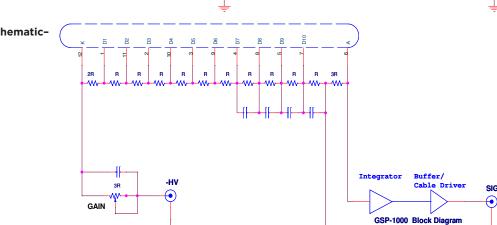
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Voltage Divider/Preamplifier

Configuration -









Saint-Gobain Crystals