

# Model HVPA-1210

## Integrated High Voltage Power Supply

The HVPA-1210 contains a voltage divider, charge-sensitive preamplifier (GSP-1000) and power supply assembled in one package. It is for use with scintillation detectors coupled to 12-pin, 10-stage photomultiplier tubes (PMTs) that are operating at positive high voltage. The HVPA-1210 is a plug-on model that simply pushes onto the 12-pin PMT base.

### Standard Features -

- Excellent stability with varying anode currents
- Very low power consumption
- Low noise
- 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 such as the 1M1/1.5 and 1.5M1.5/1.5 models.



### High Voltage Power Supply Specifications -

- +12V @ 50 mA
- -12V @ 10mA
- Positive 0-1250V
- Control voltage 0-5V (meaning 1V = 250V)
- Ripple p-p <0.005%
- Max Operating temperature -10° to 50°C
- Storage temperature -25° to 95°C
- Temperature coefficient < 25 ppm/ °C
- Signal connector: BNC
- High voltage monitor Jack: POMONA, 72922-2
- High voltage control connector: LEMO ERA.00.250.CTL
- DC Power connector: LEMO EHP.0S.302.CLL
- Supplied DC power cable: 10 feet with Amphenol (9) PIN "D" connector

### Preamplifier Specifications -

- High input impedance
- Nominal charge sensitivity: 2.66 mVpC
- Decay time constant: 50μS (other time constants are possible.)
- Rise time (square input): ~10nS
- Cable driving capability: <750 feet
- Output impedance: 50 Ohms
- Charge rate capacity over 6μC/sec

### Voltage Divider Specifications -

- High voltage divider
- Anode load resistor: 2.2MOhm (nominal)
- Voltage ratio cathode to dynode 1 is 2R.

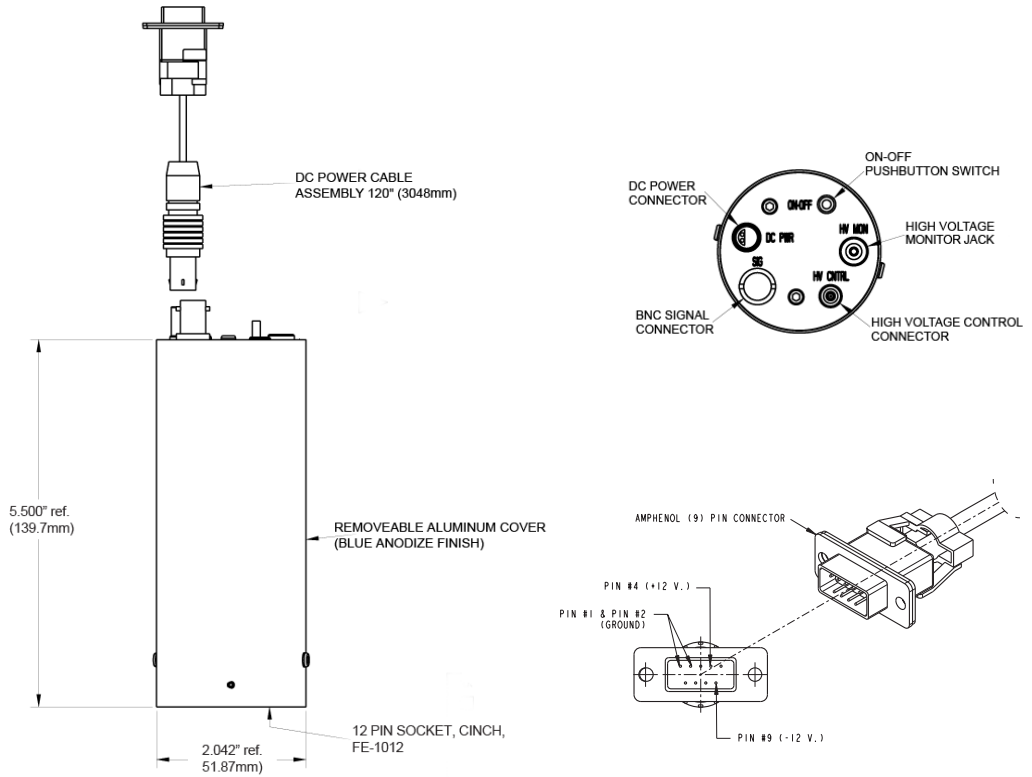
### Options -

- Signal connector: Other types available upon request.
- Conformal coating for high humidity applications.
- Charge sensitivity: Other gains as up to 50 mV/pC
- Output impedance: 50 ohm, 93 ohm or capacitor coupled
- Operate at +/- 5V
- Negative high voltage operation

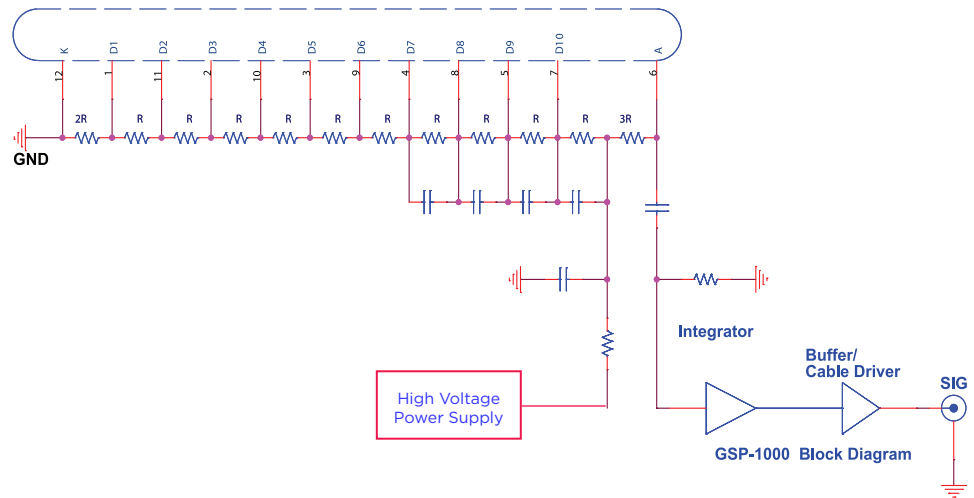
Compatible Photomultiplier Tubes			
Size	Electron Tubes Model	Hamamatsu Model	Photonis Model
1.5"	9102	R980	XP2012
	9902	R580	XP2013
	9903	2060	XP2040
			XP2052
			XP2060
			XP2072

# Model HVPA-1210 POWER SUPPLY

## Configuration -



## PA-1210 Schematic -



The drawing dimensions are nominal and subject to change. Call the factory for current values.



Saint-Gobain Crystals

www.crystals.saint-gobain.com

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