

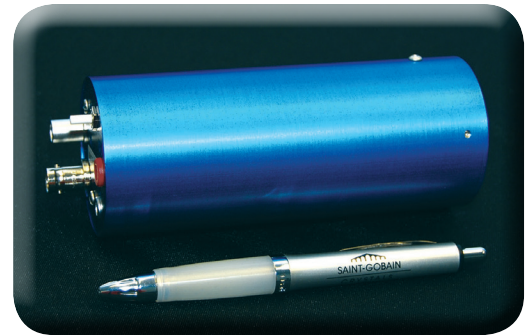
# Model HVTA-1410

## Integrated High Voltage Power Supply

The HVTA-1410 contains a fully transistorized voltage divider, charge-sensitive preamplifier (GSP-1000) and power supply assembled in one package. It is for use with scintillation detectors coupled to 14-pin, 10-stage photomultiplier tubes (PMTs) that are operating at positive high voltage. The HVTA-1410 is a plug-on model that simply pushes onto the 14-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 14-pin base of a PMT or radiation detector.
- Optimized to work with Saint-Gobain Crystals standard detectors such as the 2M2/2 and 3M3/3 models.



### High Voltage Power Supply Specifications -

- +12V @ 38 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 -

- Transistorized high voltage divider
- Anode load resistor: 2.2MΩ (nominal)
- Voltage ratio cathode to dynode 1 is 2R.
- Support for anode currents >50 uA

### 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

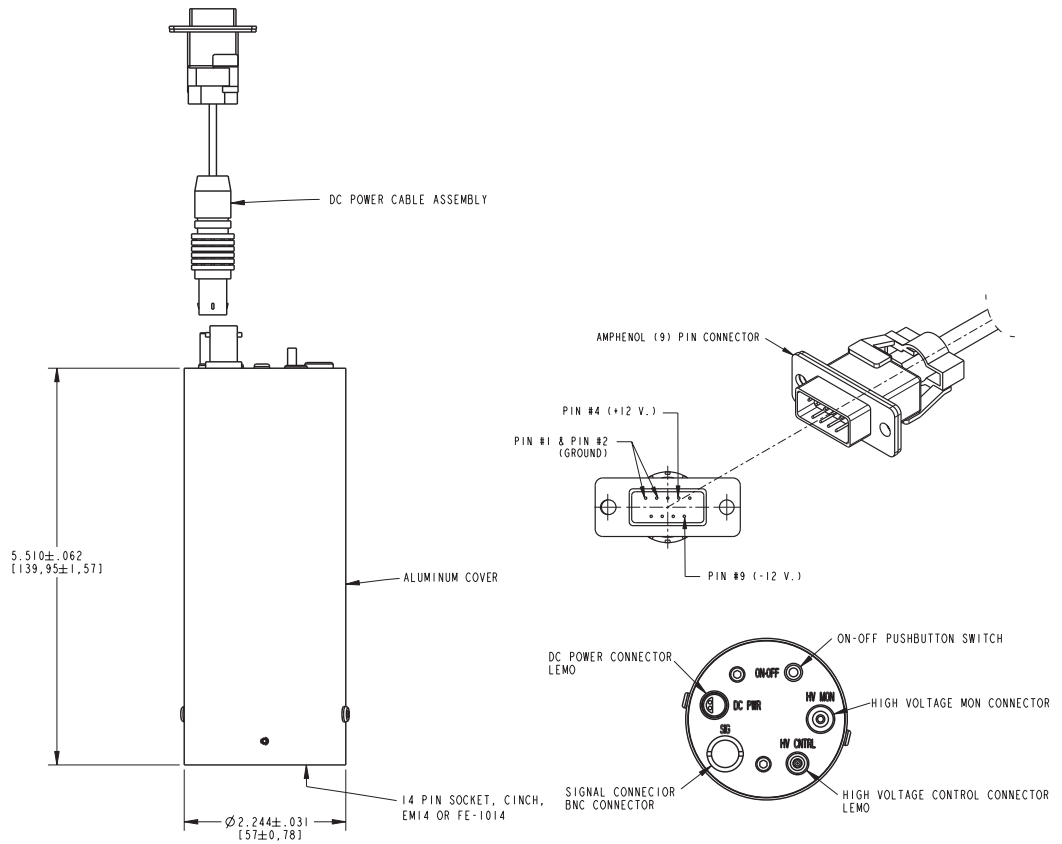
Compatible Photomultiplier Tubes					
Size	ADIT Model	Burle Model	Electron Tubes Model	Hamamatsu Model	Photonis Model
2"	B51D01	S83019	9266K	R550 R2154	XP2201B XP2202B XP2203B XP3230B XP6202B
3"	B76B01	S83021	9305K		XP3330B XP3332B XP6302B
3.5"	B89B01	S83013	9306K		XP3730B XP3732B
5"	B133D01	S83006	9390K	R877 R1513	XP3530B XP3540B XP3550B

CRYSTALS

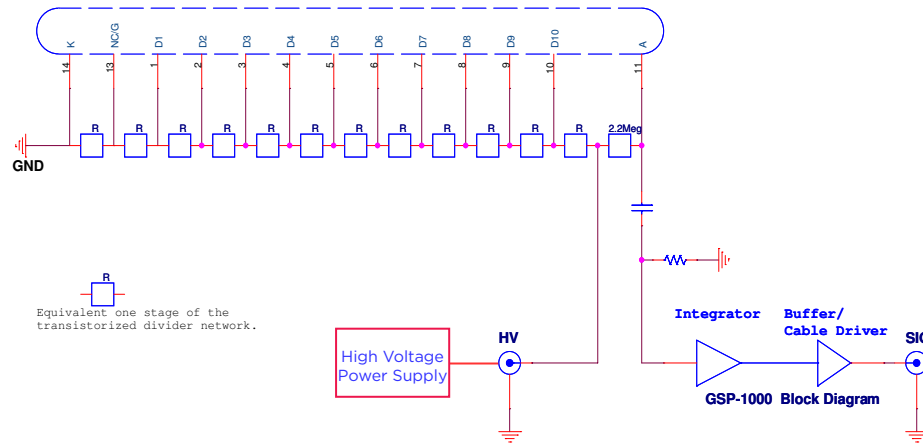
SAINT-GOBAIN

# Model HVTA-1410 POWER SUPPLY

## Configuration -



## TA-1410 Schematic -



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



Saint-Gobain Crystals

www.crystals.saint-gobain.com

Manufacturer reserves the right to alter specifications.

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