

1. Overview



EP-AP6114 pulse gas detector current sensitive preamplifier, can be applied to the positive ratio counter, gas ionization chamber and other detectors, its use of high-speed low-noise discrete components constitute a fast current amplifier, can be widely used in high-count rate gas detector measurement occasions.

2. Functional indicators

- ▶ 1 Specifically adapted for use with proportional counters
- ▶ 2 Cost-effective amplifier with 0~3000V high voltage bias inputs
- ▶ 3 Input Protection Circuit
- ▶ 4 Power supply conforms to NIM chassis standards

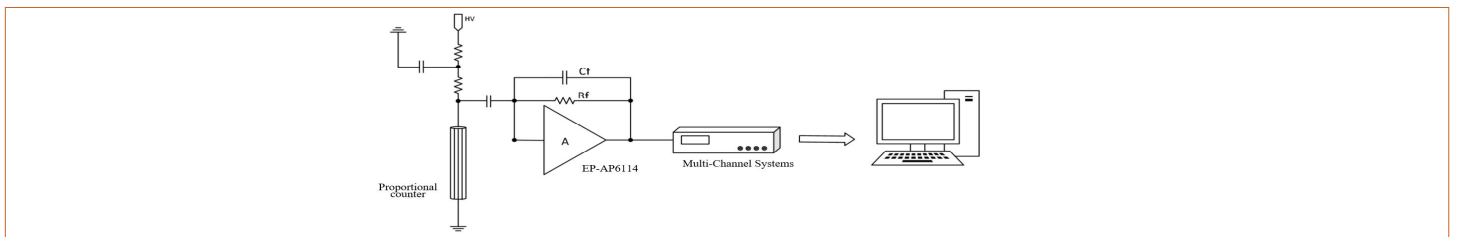
3. Performance parameter

Power supply	Power	High Voltage Output Voltage	Gain Linearity	Charge Gain	Rising time	Decay time constant	Analog bandwidth	Signal polarity	Output swing	Output bias	Output resistance	Gain Temperature Stability	Operating temperature	Storage temperature
±24V±12V	690mW	3000V MAX	<0.03%	2512mV/pC	13.6ns (3pF Feedback capacitor)	50µs	275MHz	Positive	-20V~22V	0V	93Ω	<0.1%/°C	0°C~50°C	-65°C~+150°C

4. Electromechanical interface

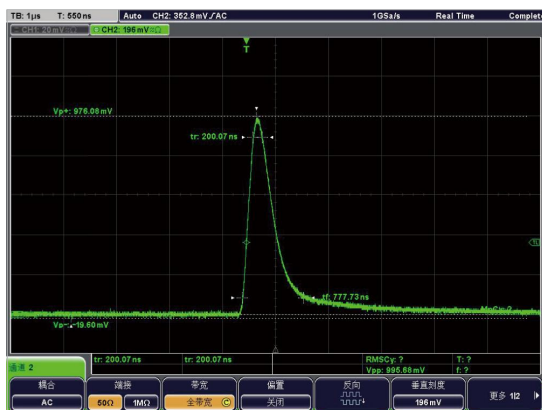
- ▶ INPUT Detector Connection Port
- ▶ TEST Test signal input port
- ▶ HV High voltage input (up to 3000V)
- ▶ POWER DC power input port (±24V/±12V) NIM Instruments Standard
- ▶ E Energy output signal
- ▶ T Time Output Signal

● Figure 1 Connection method



5. Performance testing

● Figure 2 Diagram of the device for measuring ¹³⁷Cs radioactive sources in a gas ionization chamber



6. Applications

The high count rate fission ionization chamber was tested using the EP-AP6114 pulsed gas detector front release, with a pass rate of 89.3% at a measured count rate of 130kcps.

● Figure 3 Fission ionization chamber test chart

