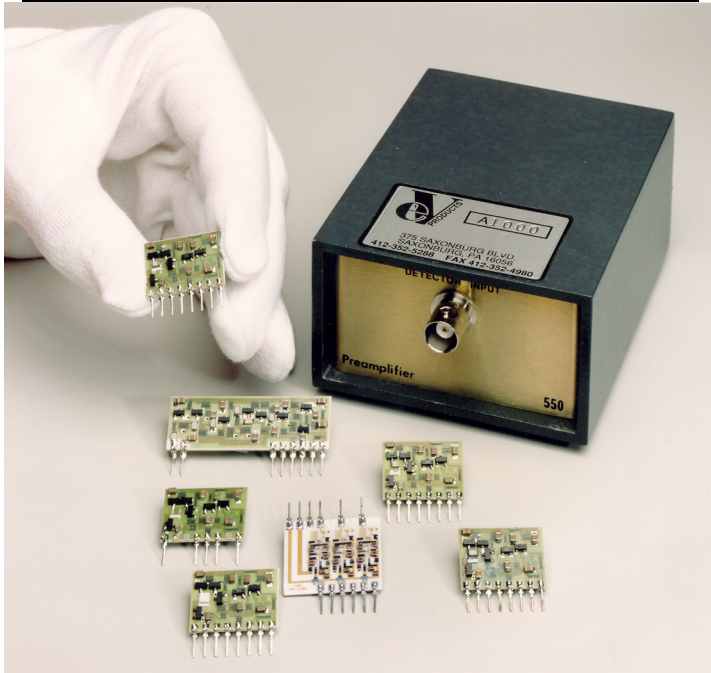


eV-509x Preamplifiers



For Use with:

- CZT detectors
- Si surface barrier detectors
- Photodiodes
- HgI₂
- Proportional gas counters
- Multichannel plate arrays with and without resistive anode readouts

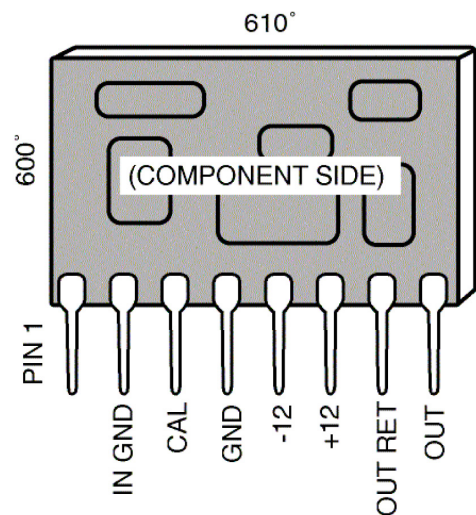
kromekTM
detect image identify

eV-509x Preamplifiers

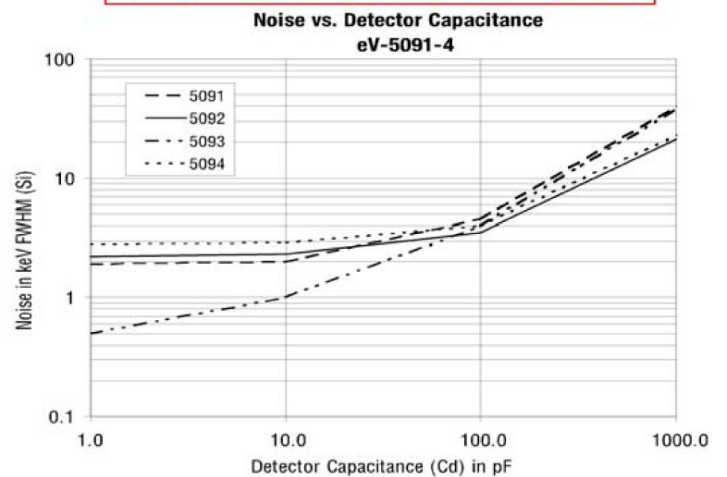
Single Charge-Sensitive Hybrid Preamplifier

The eV-509x product family is a low-noise, general purpose charge sensitive preamplifier designed to exhibit excellent performance with detectors having various source capacitances.

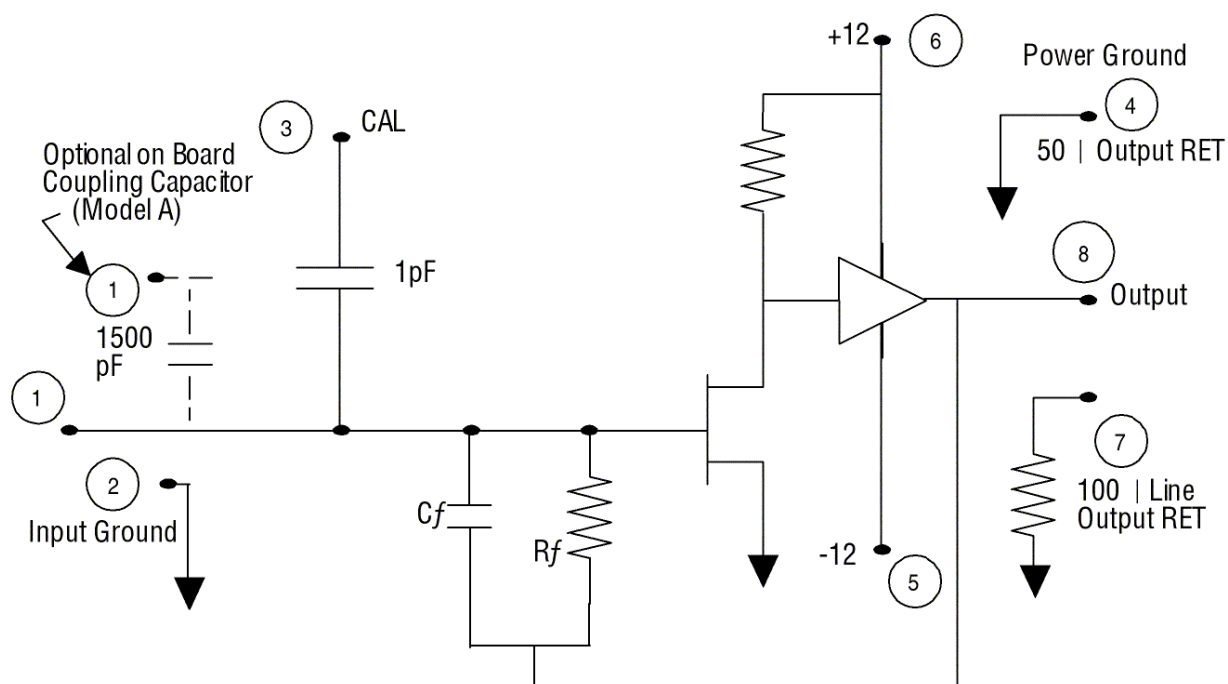
All eV-509x preamplifiers can also be ordered in the standard eV-550 preamplifier box shown above.



Single Channel Hybrid Noise vs. C_d Chart



eV-509x Preamplifiers



Specifications for each of 4 standard units

| | | eV-5091 | eV-5092 | eV-5093 | eV-5094 |
|----------------------------------|---------------|---------|---------|---------|---------|
| Parameter | Unit | Rating | Rating | Rating | Rating |
| Input Capacitance | pF | 12 | 30 | 12 | 30 |
| Risetime @ $C_{in} = 2\text{pF}$ | ns | 20 | 15 | 20 | 30 |
| Falltime @ $C_{in} = 2\text{pF}$ | μs | 25 | 110 | 1030 | 1100 |
| Sensitivity* | mv/fC | 1.0 | 0.2 | 3.6 | 1.1 |
| | mV/MeV (Si) | 44 | 5 | 158 | 48 |

| Parameter | Rating | Unit |
|----------------------|-------------|------|
| Output Capacitance | 57 | ohms |
| Open Loop Gain | $\sim 10^4$ | V/V |
| Radiation Resistance | $> 10^7$ | Rads |
| Power Dissipation | 180 | mW |