

## ArrayPGstat Specifications

<b>Chassis</b>	
Accommodates up to eight 5-channel boards	
<b>5-Channel Board</b>	
<b>Cell Control</b>	
Compliance Voltage	±15V
Max Output Current	±4 A over 40 channels / 100mA max per Ch.
Rise Time	45 uS for 1k Ohm load (0%-100% signal)
Slew Rate	0.2 V/μs
Bandwidth	8 kHz (-3 dB, 1k Ohm load)
Applied DC Potential Ranges	1 (±10 V)
Applied Potential Resolution	0.3 mV
Applied Potential Accuracy	< 0.04% FSR (Full Scale Range)
Current Autoranging	Yes
Applied DC Current Ranges	2 (±1mA , ±100mA)
Best Applied Current Resolution	91 nA, 0.003% of FSR
Applied Current Accuracy	0.03% of FSR
Input Bias Current	500 pA
Input Impedance	250 GΩ parallel to 3 pf
Maximum Update Rate	4 μs
Maximum Scan Rate	100V/sec
IR Compensation	N/A
External Control	N/A
<b>Potential Measurement</b>	
Measured DC Potential Ranges	1( ±10 V)
Resolution	3 μV, 300 μV (0.006%, 0.003% of FSR)
Accuracy	0.08 or 0.03% of FSR
<b>Current Measurement</b>	
Measured Current Ranges	PotentioSTAT: 2 (± 1mA, ± 100 mA )
PotentioSTAT Min to Max	91nA to 100mA
Best Resolution	GalvanoSTAT: 91 nA (0.003% of FSR) PotentioSTAT: 91 nA (0.003% of FSR)
Accuracy	GalvanoSTAT: 0.03% of FSR; PotentioSTAT: 0.3 - 0.03% of FSR
<b>Excitation Signal and Data Acquisition</b>	
Acquisition Speed	250 k samples/s (Aggregate) 10 k samples/s/ch. (10 channels/card)

DAC Resolution	16 bits
Range	$I = V_{meas}/\{\text{Effective Gain}\}$
1mA	3.3K Ohm
100mA	100 Ohm
Number of DAQ cards	Up to 4
Data Control and Acquisition Configuration	One excitation signal source controls a minimum of two 5-channel PGstat boards and a maximum of 8 boards (40 channels). Select up to 4 excitation signal sources that can be distributed across any combination of pairs of PGstat boards. Excitation sources are National Instruments DAQ cards optimized for the number of PGstat boards selected.

[http://nuvant.com/products/potentiostat\\_galvanostat/multichannel/arraystat-5-25-cycling-channels/](http://nuvant.com/products/potentiostat_galvanostat/multichannel/arraystat-5-25-cycling-channels/)