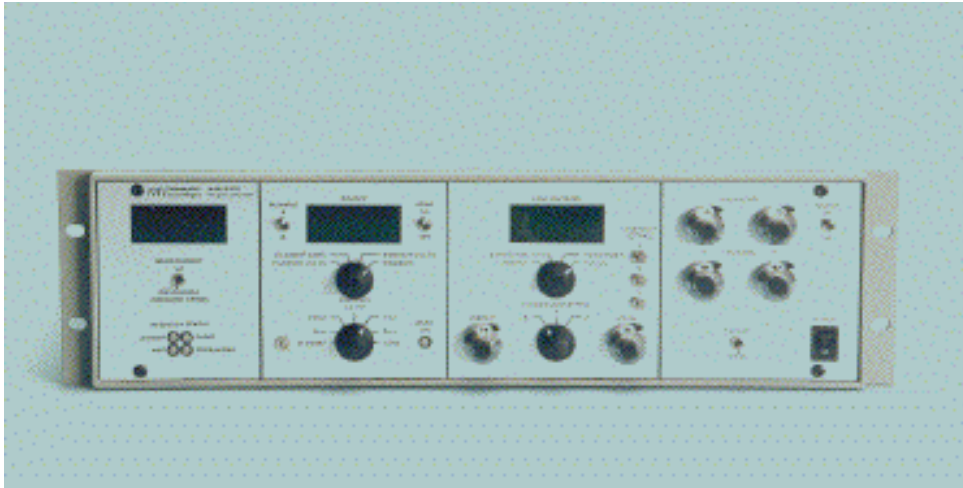


Model 1401A Ion Gun Controller



Controller Features

- Precise and stable lens voltages
- Emission regulated electron impact current supply
- Front panel raster controls with external programmability
- Power interlocks for safety and equipment protection
- Remote On/Off control for automated operation from external equipment
- Raster compensation electronics to correct for changes in sample geometry and working distance
- Comprehensive front panel system parameter monitoring

Controller Specification

Input Power:	115/220 volts AC auto-select operation. Fused at 3.3 Amperes.
Beam Energy:	0 - 5000 volts switch mode supply continuously variable. O/P current: 1 mA maximum. O/P capacitance: 0.0047 μ F.
Condenser:	0 - 5000 volts switch mode supply continuously variable. O/P voltage scales with Energy. O/P current: 1 mA maximum. O/P capacitance: 0.0047 μ F
Objective Focus:	0 - 5000 volts switch mode supply continuously variable. O/P voltage scales with Energy. O/P current: 1 mA maximum. O/P capacitance: 0.0047 μ F
Filament Power:	Emission regulated supply with front panel selectable filaments providing 5 volts @ 5 Amp. maximum.
Electron Impact	Internally adjustable accelerating voltage and emission current front panel metering.
Ion Extraction:	Internally adjustable to 1500 volts.
Faraday Collector:	Front panel momentary switch permits beam current monitoring through panel mounted display.
Deflection:	Variable bi-polar 350 volt dc supply for +X, -X, +Y and -Y deflection. Remaining octupole elements are supplied from a resistive divider network.
Interlocks:	HV cable disconnection turns off HV supplies. Adjustable high pressure interlock switches off HV supplies in the event of system overpressure. System and Auxiliary interlocks provide total shutdown in the event of system or auxiliary equipment failure.
Front Panel Monitoring:	Digital panel meters provide precision monitoring of all critical parameters including; lens voltages ($4\frac{1}{2}$ digit), ion source pressure and beam current ($3\frac{1}{2}$ digits), filament current and voltage ($3\frac{1}{2}$ digits), emission current ($3\frac{1}{2}$ digits).
Chassis Dimensions:	483(w)x132.5(h)x435.4(d) mm. 19 inch rack-mountable desktop case 3U high.