

5902 MAGNUM ELECTRON MULTIPLIER™

For - Hewlett Packard Instruments:
5770A, 5970, 5970B, 5971A, 5972A,
GCD, 5973, 5989A, 5989B,
M.S. Engine 5995 (HP Mass
Spectrometers Fitted With K&M
Replacement Ion Optics)

For - Bear Cub 200, Hitachi 3DQ, and
Bruker Esquire.

- High Performance
- Linear Over Wide Range of Output Currents
- Low Noise
- Direct Plug-in Replacement
- Extended Operational Lifetime

The BURLE MAGNUM ELECTRON MULTIPLIER™ provides exceptional performance which results in optimum mass resolution, dynamic range, and detection sensitivity in Mass Spectrometry measurements.

The **sensitivity** of your instrument is often limited by the detector. Benefiting from our exclusive SPIRALTRON™ technology, BURLE's MAGNUM™ Mass Spectrometer detector provides the highest dynamic range in the industry, as well as delivering increased gain stability and extremely low noise. The SPIRALTRON™ technology incorporates six individual spiral multiplier channels, fed by a single integral ion collection aperture. The high degree of channel curvature ensures that ion feedback noise is virtually eliminated.

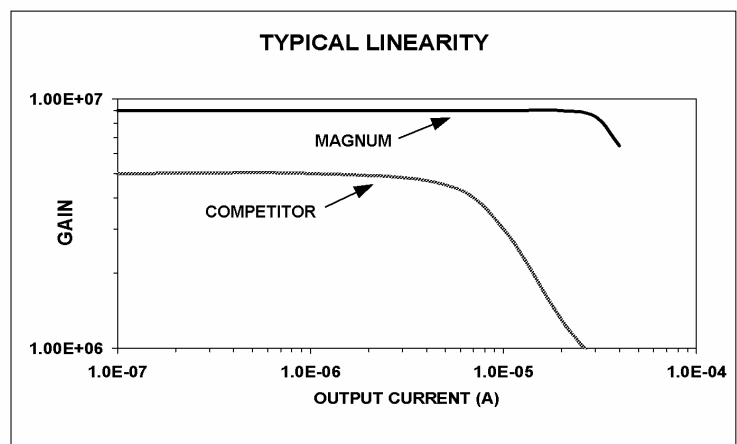
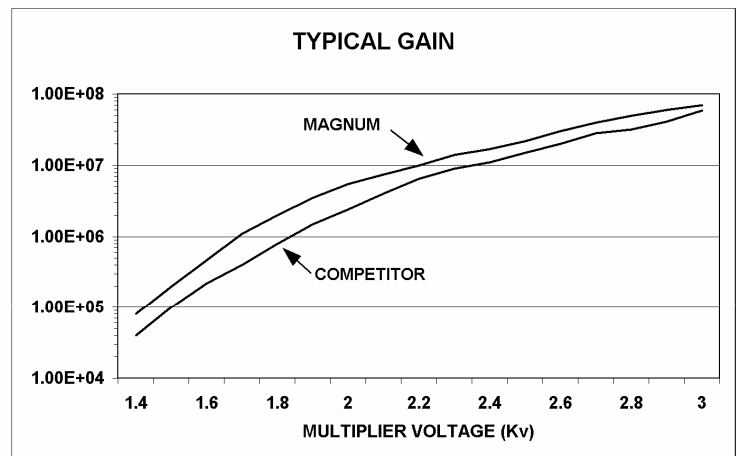
Distributing the secondary electron generation over six separate multiplier channels increases linear output current and promotes longer detector life. Single piece construction eliminates fastener and connection problems, and BURLE's proprietary glass formulation provides the industry's longest detector life.

BURLE's replaceable MAGNUM™ cartridge can be installed quickly with a minimum of instrument down time. Installation can be performed by any instrument



operator eliminating the need for an expensive factory service call. Each cartridge is specifically designed to be an exact replacement for the original detector cartridge. You don't have to buy an ion optics frame to replace the detector cartridge.

High mass resolution, dynamic range improvements, and superior sensitivity, all from the world's largest supplier of standard, retrofit and custom detectors for mass spectrometry.



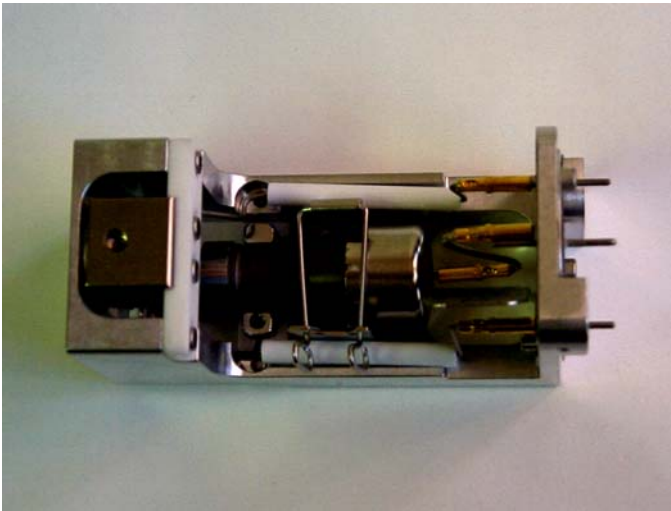
BURLE

MAGNUM ELECTRON MULTIPLIER™

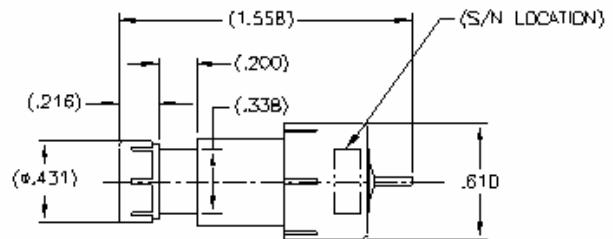
SPECIFICATIONS	
Operating Voltage	1200 – 3000 VDC
Gain (typical)	5 x 10 ⁵ at 1.6 kV 6 x 10 ⁷ at 3.0 kV 8 x 10 ⁶ at 2.3 kV
Background Noise (typical value after degassing)	< 3 x 10 ⁻¹³ A at 3000 V
Output Dark Pulses (typical value after degassing)	< 0.1 cps at 3000 V
Resistance	20 – 40 MΩ at room temperature
Linear Output Current (minimum)	20 μA
Operating Temperature Range	-50° to 100 °C
Maximum Vacuum Bake Temperature (non operating)	380 °C
Vacuum (maximum pressure)	7 x 10 ⁻⁴ torr

Features

- Easy Replacement
- High Dynamic Range
- Extended Linearity
- Low Noise
- Low Cost
- Long Life
- High Sensitivity



DETECTOR CONFIGURATION



The MAGNUM ELECTRON MULTIPLIER™ is a direct replacement for the original equipment

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For additional information in the U.S.A. and Canada, telephone +1-800-648-1800 and for international calls, use +1-508-347-4000, or FAX request to +1-508-347-3849. BURLE Electro-Optics, Inc., Sturbridge Business Park, P.O. Box 1159, Sturbridge, MA 01566-1159 USA