

5901 MAGNUM ELECTRON MULTIPLIER™ FOR PULSE COUNTING

Specifically Designed for Pulse Counting Applications

- High Performance
- Compact, On Axis Design
- Wide Dynamic Range
- Low Noise
- Excellent Pulse Height Resolution

The BURLE **Magnum Electron Multiplier™** has exceptional performance to achieve optimum resolution, dynamic range, and detection sensitivity for Pulse counting applications involving the detection of charged particles and electro-magnetic radiation.

The **sensitivity** of your measurement 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.

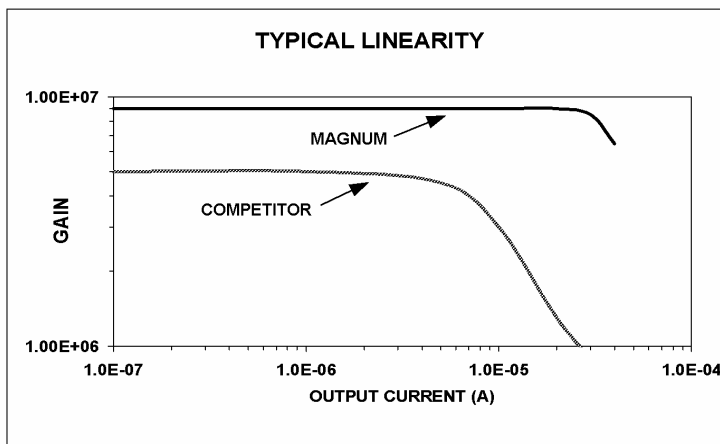
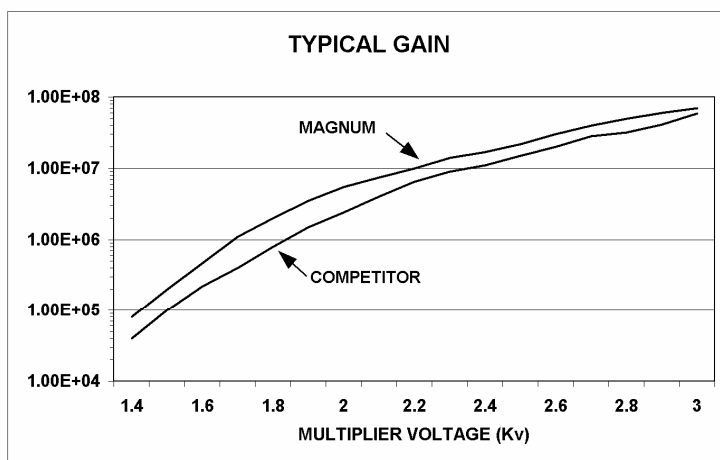
Distributing the secondary electron generation over six separate multiplier channels increases the linear output current and maximum count rate, while promoting longer detector life. BURLE's proprietary glass formulation provides the industry's longest detector life. The single piece construction eliminates fastener and connection problems.

BURLE's replaceable **Magnum 5901** cartridge can be installed quickly with the minimum of instrument down time. Each cartridge is specifically designed to be an exact replacement for the original detector cartridge.



The detector is also available with attached leads for prototyping applications.

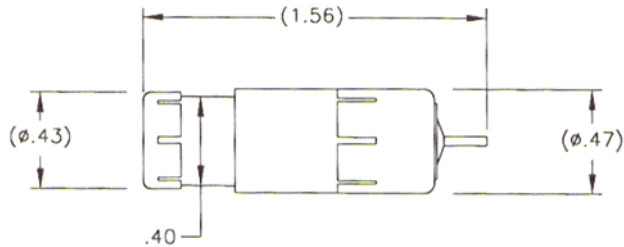
High resolution, dynamic range improvements, and superior sensitivity, all from the world's largest supplier of standard, retrofit and custom detectors for mass spectrometry.



5901 MAGNUM ELECTRON MULTIPLIER™

| SPECIFICATIONS | |
|----------------------------------------------------|---------------------------------------|
| Operating Voltage | 1200 – 3000 VDC |
| Gain (typical) | 5×10^7 @ 2500V |
| Pulse Height Resolution (typical) | 70% FWHM Maximum @ 3000V |
| Background Noise (typical value after degassing) | $<3 \times 10^{-13}$ amps @3000V |
| Output Dark Pulses (typical value after degassing) | <0.1 count/sec @3000V |
| Resistance | 20 – 40 MΩ @ room temperature |
| Linear Output Current | 20 micro-amps min. |
| Operating Temperature Range | -50° to +100 °C |
| Maximum Vacuum Bake Temperature (non operating) | 380 °C |
| Vacuum | 7×10^{-4} torr max. pressure |

DETECTOR CONFIGURATION



Features

- Easy Replacement
- High Dynamic Range
- Extended Linearity
- Low Noise
- Lower Cost
- Longer Life
- Greater Sensitivity

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