

# 5903 MAGNUM™ ELECTRON MULTIPLIER

For Thermo Finnigan Instruments:

GCQ™ and LCQ™

SSQ® 7000 and TSQ® 7000

PolarisQ and TSQ® Quantum

- High Performance
- Linear Over Wide Range of Output Current
- Low Noise
- Direct Plug-in Replacement for OEM Multiplier

BURLE's **MAGNUM™ ELECTRON MULTIPLIER** provides exceptional performance to achieve optimum mass resolution, dynamic range, and detection sensitivity for Mass Spectrometry measurements.

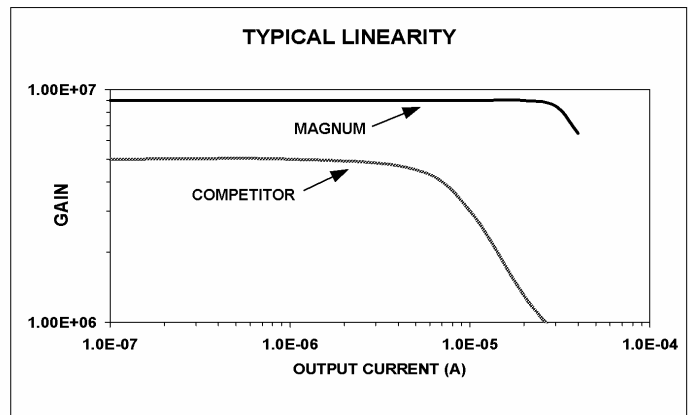
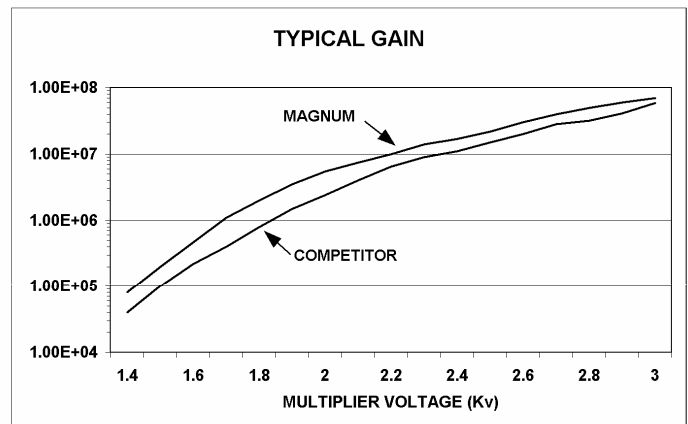
The **sensitivity** of the instrument is often limited by the detector. Benefiting from our exclusive SPIRALTRON™ technology, BURLE's **MAGNUM™** Mass Spectrometer detector provides the highest dynamic range in the industry, as well as delivering increased gain stability and extremely low noise. The 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 minimal instrument down time. Installation can be performed by the 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. It is not necessary to purchase an ion optics frame to replace the detector cartridge.



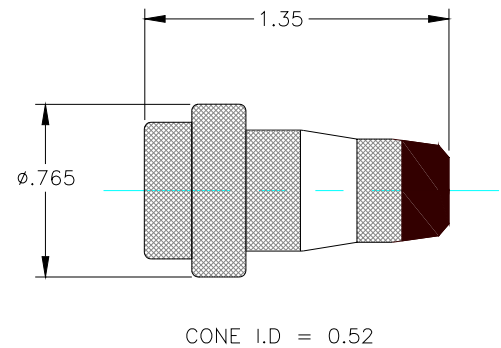
High mass resolution, dynamic range improvements, and superior sensitivity, all from the world's largest supplier of standard, retrofit and custom detectors for mass spectrometry.



# MAGNUM™ ELECTRON MULTIPLIER

SPECIFICATIONS	
Operating Voltage	1000 – 3000 VDC
Gain (typical)	$1 \times 10^7$ at 2500 V
Background Noise (typical value after degassing)	$< 2 \times 10^{-13}$ A at 3000 V
Output Dark Pulses (typical value after degassing)	$< 0.1$ cps at 3000 V
Resistance	16 – 42 M $\Omega$ at room temperature
Linear Output Current (min.)	20 $\mu$ A
Operating Temperature Range	-50° to +100 °C
Maximum Vacuum Bake Temperature (non operating)	380 °C
Operating Pressure (max.)	$7 \times 10^{-4}$ torr

## Detector Configuration (inch)



**The 5903 MAGNUM ELECTRON MULTIPLIER™ is a direct replacement for the original detector.**

## Features

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

The information furnished is believed to be accurate and reliable, but is not guaranteed and is subject to change without notice. No liability is assumed by BURLE INDUSTRIES for its use. Performance data represents typical characteristics and not specifications as actual, individual product performance may vary. Customers should verify that they have the most current BURLE product information before placing orders, and should independently test and evaluate BURLE products for their intended use. No claims or warranties are made as to the application of BURLE products or their suitability or fitness for any particular purpose. This document may not be reproduced, in whole or in part, without the prior written consent of BURLE INDUSTRIES.

Copyright 2004 by BURLE Technologies, Inc. All rights reserved.

MAGNUM™ and SPIRALTRON™ are trademarks of BURLE Technologies, Inc. All other trademarks are the property of their respective owners. BURLE® and BURLE INDUSTRIES® are registered trademarks of BURLE Technologies, Inc. Marca(s) Registrada(s). Printed in the U.S.A.

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