

## **Features**

**For instruments:** Agilent 5970/A/B MSD with K&M optics, Agilent 5971/A MSD with K&M optics, Agilent 5972/A MSD with K&M optics, Agilent GCD with K&M optics, Agilent 5973/A/N MSD with K&M optics, Agilent 5989/A/B (MS Engine) with K&M optics, Agilent 5995 with K&M optics, Bear Cub 200, Bruker Esquire, Bruker Ion Trap, Hitachi 3DQ

- Easy Replacement
- Extended Linearity
- Low Noise
- Lower Cost
- Longer Life
- Greater Sensitivity
- High Performance
- Compact, On Axis Design
- Wide Dynamic Range
- Excellent Pulse Height Resolution

The Photonis Channeltron Mass Spec Detectors deliver high performance and are the preferred detector for mass spectrometers. A 100% test and inspection policy guarantees customers the highest quality and most reliable mass spectrometer detectors.

## **Description**

**For instruments:** Agilent 5970/A/B MSD with K&M optics, Agilent 5971/A MSD with K&M optics, Agilent 5972/A MSD with K&M optics, Agilent GCD with K&M optics, Agilent 5973/A/N MSD with K&M optics, Agilent 5989/A/B (MS Engine) with K&M optics, Agilent 5995 with K&M optics, Bear Cub 200, Bruker Esquire, Bruker Ion Trap, Hitachi 3DQ

**OEM #:** 05971-80103

**Notes:** Cartridge. Analog. Bruker, Hitachi, Agilent/HP replacement for "K&M" frame

The PHOTONIS 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, PHOTONIS' 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.

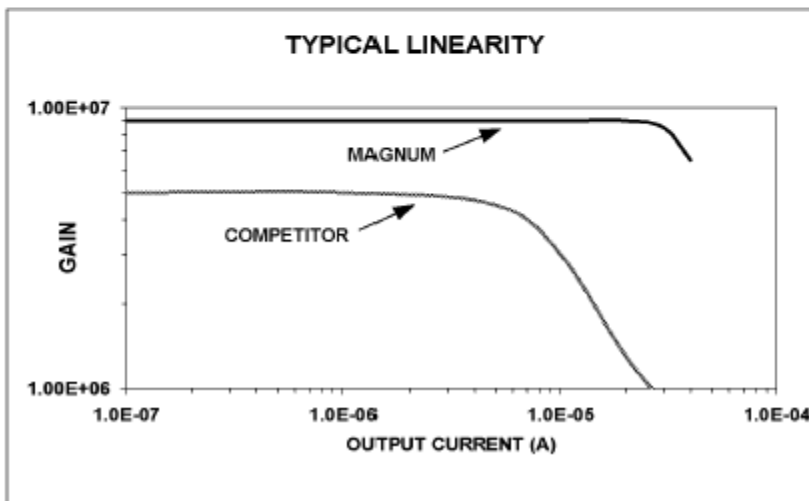
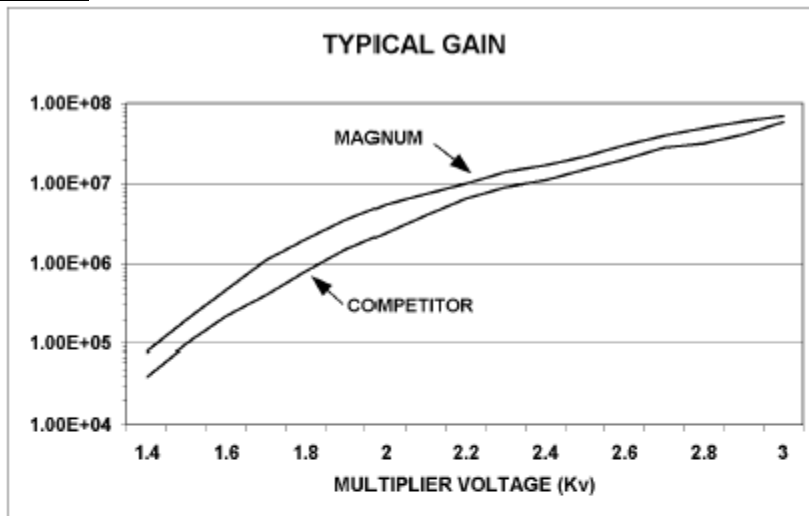
Distributing the secondary electron generation over six separate multiplier channels increases linear output current and promotes longer detector life. Single piece construction eliminates

fastener and connection problems, and PHOTONIS' proprietary glass formulation provides the industry's longest detector life.

Photonis' 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.

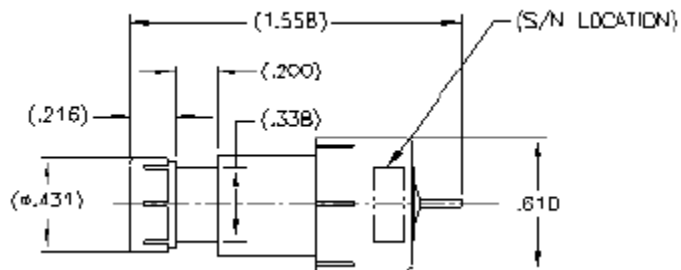
## Specs



## SPECIFICATIONS

|  |   |
|--|---|
| Operating Voltage                                  | 1200 - 3000 VDC   |
| Gain (typical)                                     | $5 \times 10^5$ at 1.6 kV; $6 \times 10^7$ at 3.0 kV; $8 \times 10^6$ at 2.3 kV |
| Background Noise (typical value after degassing)   | $< 3 \times 10^{-13}$ A at 3000 V   |
| Output Dark Pulses (typical value after degassing) | $< 0.1$ cps at 3000 V   |
| Resistance   | 20 - 40 MW at room temperature  |
| Linear Output Current (minimum)                    | 20 $\mu$ A  |
| Operating Temperature Range                        | -50° to 100 °C  |
| Maximum Vacuum Bake Temperature (non operating)    | 380 °C  |
| Vacuum (maximum pressure)                          | $7 \times 10^{-4}$ torr   |

### Detector Configuration



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