

MAGNUM Electron Multiplier™ 5900 Series

Applications

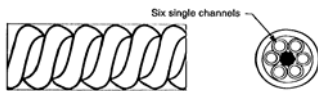
- ✓ Mass spectrometer replacements
- ✓ High pressure
- ✓ High dynamic range
- ✓ Compact, plug-in applications

Features

- ✓ High mass resolution
- ✓ Wide dynamic range
- ✓ Low noise
- ✓ Long life
- ✓ High sensitivity
- ✓ Easy replacement
- ✓ Unique 6-channel design



Unique SPIRALTRON™ Design

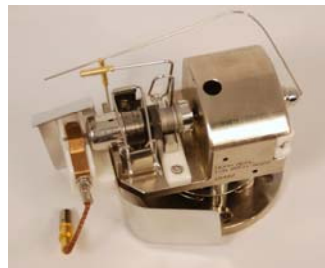


Six channel construction

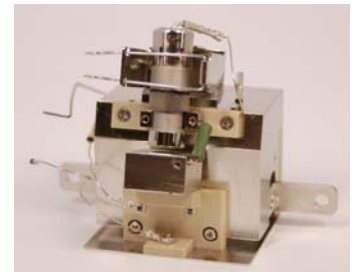
- Single inlet aperture
- Longer multiplier life
- Reduced ion feedback

MAGNUM Replacement Multipliers

5900 MAGNUM	Analog, HP replacement
5901 MAGNUM	Pulse Counting
5902 MAGNUM	Analog, Bruker, Hitachi, HP/K&M replacement
5903 MAGNUM	Analog, Thermo Finnigan, Dionex replacement
5904 MAGNUM	Analog, Bear and Varian replacement
5905 MAGNUM	Analog, Thermo Finnigan replacement



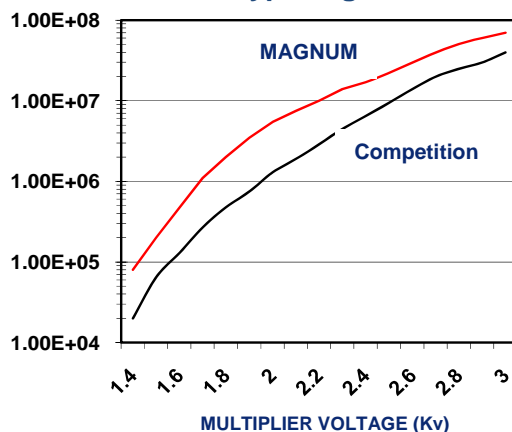
MAGNUM in Agilent Detector



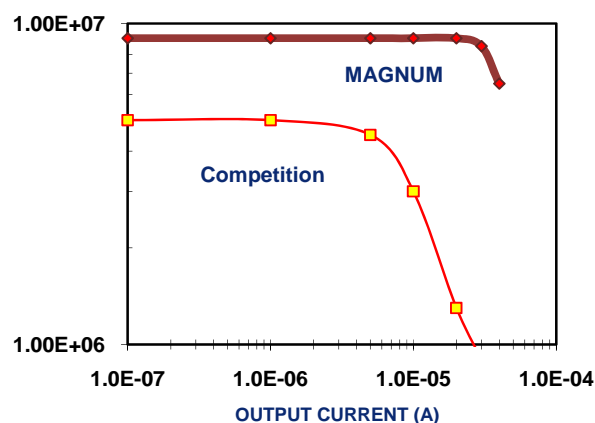
MAGNUM in Bruker Detector

Higher Gain and Longer Life

Typical gain









Typical linearity



Electron Multiplier

MAGNUM

MAGNUM specifications

MAGNUM	5900	5901	5902	5903	5904	5905
						
Spec Number	31308	31984	32336	32906	33328	34002
EDR Spec			34883	34916		
MODE	Analog	Pulse Counting	Analog	Analog	Analog	Analog
Max Pulse Height Distribution		70% FWHM				
Max Operating Pressure	7×10^{-4} Torr	7×10^{-4} Torr	1×10^{-5} Torr (7×10^{-4} EDR)	1×10^{-5} Torr (7×10^{-4} EDR)	1×10^{-5} Torr	1×10^{-5} Torr
Operating Voltage	3000 V MAXIMUM					
Bias Current @ 2500 V	60 to 147 μ A 178 to 277 EDR	60 to 167 μ A 178 to 277 EDR	60 to 147 μ A 178 to 277 EDR	60 to 156 μ A 178 to 277 EDR	60 to 147 μ A	60 to 156 μ A
Resistance (ref only)	17 to 42 M Ω 9 to 14 EDR	18 to 50 M Ω 9 to 14 EDR	17 to 42 M Ω 9 to 14 EDR	16 - 42 M Ω 9 to 14 EDR		
Minimum Gain @2500 V	1×10^7	5×10^7	1×10^7	1×10^7	1×10^7	1×10^7
Max Dark Current	1×10^{-12} A (at 2500 V)					
Max Dark Count	120 counts in 60 seconds (at 3000 V)					
Bias Resistor (nominally)	10 to 20% of Total Resistance (20% EDR)	10 to 20% of Total Resistance (20% EDR)	10 to 20% of Total Resistance (20% EDR)	10 to 20% of Total Resistance (20% EDR)	10 to 20% of Total Resistance	10 to 20% of Total Resistance
Max Vacuum Bake	350° C (not operating)					
Operating Temperature	-50 to 120° C					

Other compact PHOTONIS Multipliers for high pressure applications

Spiraltron™ up to 1×10^{-3} Torr



MegaSpiraltron™ up to 10^{-2} Torr (standard and EDR)



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