

**A****MICRO-MODULES****CE**

- **HIGH STABILITY 10PPM/HR**
- **ULTRA LOW NOISE 10PPM**
- **ULTRA LOW TEMPERATURE COEFFICIENT 10PPM/°C**
- **SIX-SIDED SHIELDED**
- **STABLE STATE INSTANTLY**
- **EXTERNAL POTENTIOMETER OR AN EXTERNAL VOLTAGE REFERENCE**
- **OEM CUSTOMIZATION AVAILABLE**

## INTRODUCTION

Wisman's MG series of high voltage 0.3W micro-modules that provide output voltage up to 1.1kV. MG modules are compact six-sided shielded modules with ultra-low noise, high stability and ultra-low temperature coefficient. All models are provided with external potentiometer or an external voltage monitoring panel. This series modules have protection functions including over current protection, arc fault protection and short circuit protection.

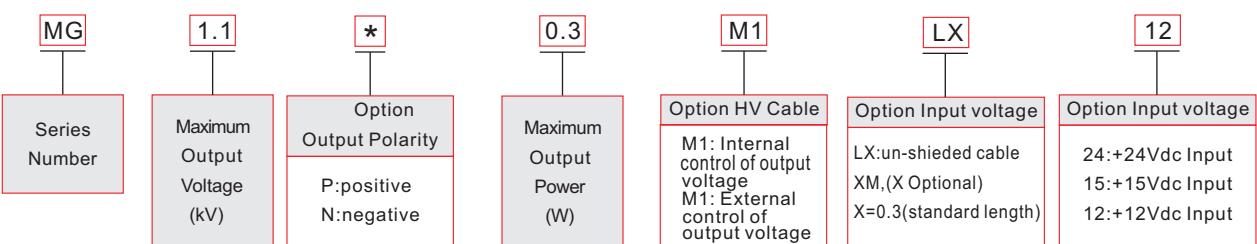
## TYPICAL APPLICATIONS

Mass spectrometry photomultiplier tubes (PMT), solid state detectors, Piezo crystal devices, ultrasonic transducers, microchannel plates (MCP), spectroscopy, scintillation counters, electron multiplier detectors, nuclear instruments, electrophoresis, semiconductor testing, DNA sequencing, radiation counter, electron and ion beams, electrostatic chuck, high voltage, bias hipot testing, precision lenses, image intensifiers, semiconductor testing, chemical applications, laboratory applications, industrial application supplies.

## MG SELECTION TABLE

KV	mA	P(W)	MODEL
1.1	0.27	0.3	MG1.1*0.3

## MG SELECTION EXAMPLE





## MG SPECIFICATIONS

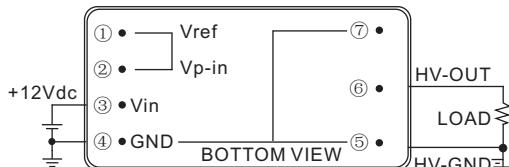
PARAMETER	DESCRIBE
Input Voltage	+12Vdc $\pm$ 2%. Input current 100mA max, +15Vdc $\pm$ 2%, +24Vdc $\pm$ 2% input available
Output	1.1kV, customization available.
Stability	0.001%/hr after a 30 minute warm-up period.
Temperature Coefficient	<10ppm/ $^{\circ}$ C.
Ripple	0.001% p-p of maximum output voltage.
Voltage Programming	By external 20k $\Omega$ potentiometer or external voltage control(Vp-in) 0~+5Vdc, Zin = 100k $\Omega$ .
Voltage Line Regulation	$\pm$ 0.001% (input voltage change $\pm$ 2%).
Voltage Load Regulation	$\pm$ 0.01% (no load to full load change).
Operating Temperature	0 $^{\circ}$ C~+50 $^{\circ}$ C.
Storage Temperature	-40 $^{\circ}$ C~+85 $^{\circ}$ C.
Humidity	0%~90% RH, non-condensing.
Cooling	Convection cooled.
Dimensions	0.50" H x 1.00" W x 2.00" D (12.70mm x 25.40mm x50.80mm).
Weight	30g.

## MG PIN INFORMATION

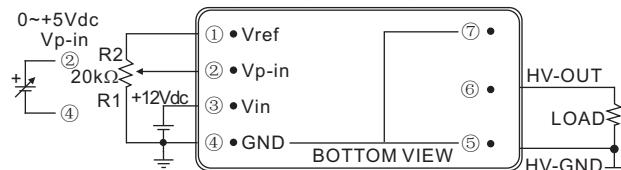
PIN	DESCRIPTION
1	+5Vdc Reference
2	Voltage Programming,0~+5Vdc=0~100% of rated output,Zin=100k $\Omega$
3	Input voltage +12Vdc $\pm$ 2%,Option +15Vdc $\pm$ 2%, +24Vdc $\pm$ 2%
4	Power/Signal GND
5	HV GND
6	HV Output
7	HV GND

## MG CONNECTION DIAGRAM

M1:Inner Voltage Programming

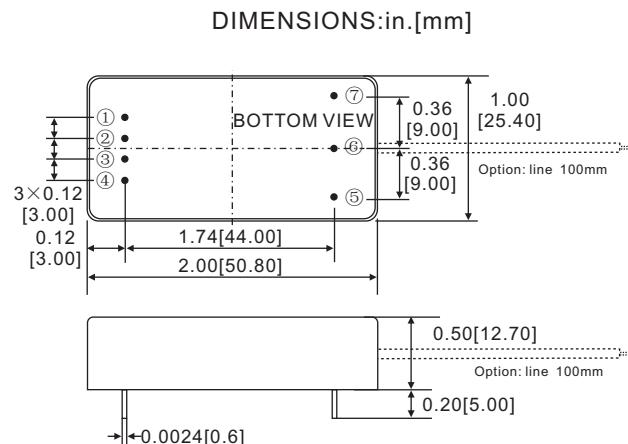


M2:External Voltage Programming

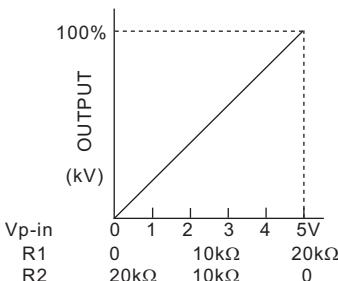


- PIN④, ⑤, ⑦ and case are internally connected, and should be always grounded.
- External potentiometer of TC  $\leq$  100ppm/ $^{\circ}$ C, PC  $\geq$  1/4W is recommended.
- PIN①, ② are for option.

## MG DIMENSIONS



## MG CHARACTERISTICS OF OUTPUT VOLTAGE SETTING



A

MICRO-MODULES