- HIGH STABILITY:10PPM/HR
- ULTRA LOW NOISE 10PPM
- ULTRA LOW TEMPERATURE COEFFICIENT 10PPM/℃
- SIX-SIDED SHIELDED
- EXTERNAL POTENTIOMETER OR AN EXTERNAL VOLTAGE REFERENCE

CE

70X50X17

INTRODUCTION

Wisman's MD series of high voltage 1~5W micro-modules that provide output voltages ranging from 0.3kV to 4kV. MDA modules are compact six-sided shielded modules with ultra-low noise 10ppm, high stability 10ppm/Hr and ultra-low temperature coefficient 10ppm/℃. 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.

MD SELECTION TABLE

kV	mA	P(W)	MODEL	kV	mA	P(W)	MODEL	kV	mA	P(W)	MODEL	kV	mA	P(W)	MODEL
0.3	3.3	1	MD 0.3*1	1	1	1	MD 1*1	2	0.5	1	MD 2*1	3	0.33	1	MD 3*1
	6.7	2	MD 0.3*2		2	2	MD 1*2		1 1	2	MD 2*2		0.67	2	MD 3*2
	10	3	MD 0.3*3		3	3	MD 1*3		1.5	3	MD 2*3		1	3	MD 3*3
	13	4	MD 0.3*4		4	4	MD 1*4		2	4	MD 2*4		1.25	4	MD 3*4
	16.7	5	MD 0.3*5		5	5	MD 1*5		2.5	5	MD 2*5		1.67	5	MD 3*5
0.5	2	1	MD 0.5*1	1.5	0.67	1	MD 1.5*1	2.5	**0.4**	**1**	MD 2.5*1	4	0.25	1	MD 4*1
	4	2	MD 0.5*2		1.33	2	MD 1.5*2		0.8	2	MD 2.5*2		0.5	2	MD 4*2
	6	3	MD 0.5*3		2	3	MD 1.5*3		**1.2**	**3**	MD 2.5*3		0.75	3	MD 4*3
	8	4	MD 0.5*4		2.67	4	MD 1.5*4		1.6	4	MD 2.5*4		1	4	MD 4*4
	10	5	MD 0.5*5		3.33	5	MD 1.5*5		**2**	**5**	MD 2.5*5		1.25	5	MD 4*5

MD SELECTION EXAMPLE

MD	4	*	5	VP	5	VIM	5	LS	15
Series Number	Maximum Output Voltage (kV)	Option Output Polarity: P:positive N:negative	Maximum Output Power (W)	Option Programming: VP: Voltage programming	Option Programming Proportion: 10:0~+10Vdc=0 to max. output 5:0~+5Vdc=0 to max. output	Option Monitor: VM:Voltage Monitor IM:Current Monitor VIM:Voltage & Current Monitor	Option Monitor Proportion: 10:0~+10Vdc=0 to max. output 5:0~+5Vdc=0 to max. output	Option Start Way: LS: GND=ON OPEN=OFF REMOTE CONTROL SWITCHES	Option Input Voltage: 24:+24Vdc input 15:+15Vdc input 12:+12Vdc input

A MICRO-MODULES

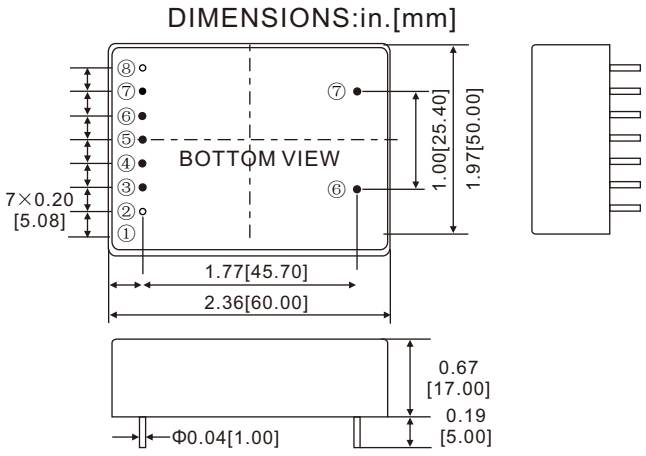
MD SPECIFICATIONS

PARAMETER	DESCRIBE
Input Voltage	+24Vdc± 2%, input current≤500mA. +15Vdc± 2% ,+12Vdc± 2%.
Output	0.3kV, 0.5kV, 1kV, 1.5kV, 2kV, 2.5kV, 3kV, 4kV available.
Stability	0.001%/hr after a 30 minute warm-up period.
Temperature Coefficient	≤10ppm/℃.
Ripple	0.001% p-p of maximum output voltage. 001% p-p of maximum output voltage.
Voltage Programming	By external 20kΩ potentiometer or external voltage control(Vp-in) 0 ~+5 Vdc. Zin = 100kΩ.
Voltage Monitor	0 ~+5Vdc=0 to 100% output. Zout = 20kΩ. Accuracy=±1% .
Voltage Line Regulation	±0.001% for ±2% change in input voltage.
Voltage Load Regulation	±0.01% of MAX output voltage, no load to full load.
Operating Temperature	0℃~+50℃.
Storage Temperature	-40℃~+85℃.
Humidity	0%~90% RH, non-condensing.
Cooling	Convection cooled.
Dimensions	0. 67” Dx 1.97” W x 2. 75” H (17mm x 50mm x 70mm).
Weight	105g.

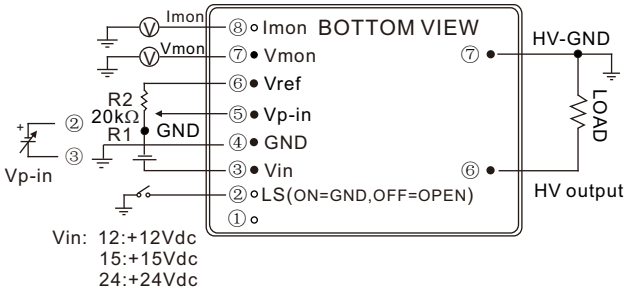
MD PIN INFORMATION

PIN	DESCRIPTION
1	NS
2	LS:ON=GND,OFF=OPEN(OPTION)
3	Power Input+15Vdc±2%, +24Vdc±2%,option+12Vdc±2%
4	Power/Signal GND
5	Control Voltage Input,0 to 5Vdc=0 to max,Zin=100kΩ.
6	+5Vdc Reference
7	Output Voltage Monitor(OPTION)
8	Output Current Monitor(OPTION)
19	High Voltage GND
24	High Voltage Output

MD DIMENSIONS



MD CONNECTION DIAGRAM



1. PIN ④, ⑦ and case are internally connected,andshould be always grounded.
2. External potentiometer of T.C ≦ 100ppm/℃,PC ≧1/4W is recommended.
3. PIN ②, ⑦, ⑧, are for option.

CHARACTERISTICS OF OUTPUT VOLTAGE SETTING