



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



60X40X17

A  
MICRO-MODULES

## INTRODUCTION

Wisman's MCD series of high voltage 1~5W micro-modules that provide output voltages ranging from 0.3kV to 3kV. MDC modules are compact six-sided shielded modules with ultra-low noise 10ppm, high stability 10ppm/hr and ultra-low temperature coefficient 10ppm/°C. 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.

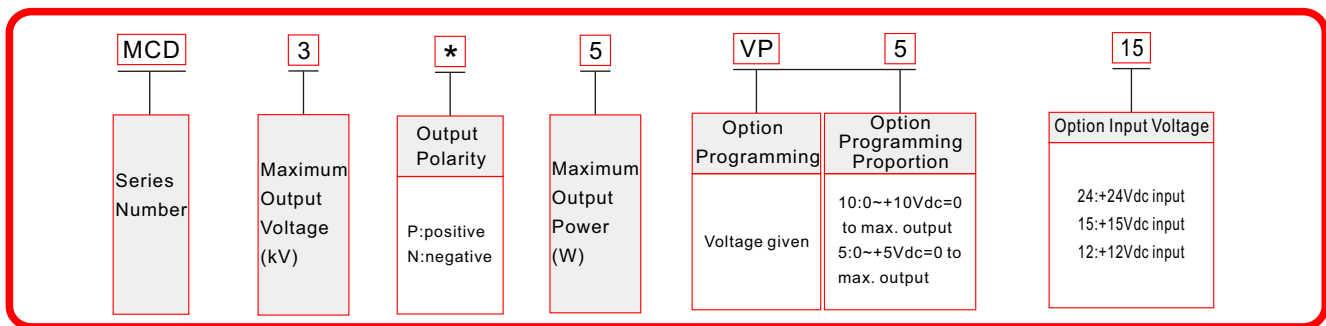
## TYPICAL APPLICATIONS

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.

## MCD SELECTION TABLE

kV	mA	P(W)	MODEL	kV	mA	P(W)	MODEL	kV	mA	P(W)	MODEL	kV	mA	P(W)	MODEL
0.5	2	1	MCD0.5*1	1	1	1	MCD1*1	2	0.5	1	MCD2*1	3	0.33	1	MCD3*1
	4	2	MCD0.5*2		2	2	MCD1*2		1	2	MCD2*2		0.67	2	MCD3*2
	6	3	MCD0.5*3		3	3	MCD1*3		1.5	3	MCD2*3		1	3	MCD3*3
	8	4	MCD0.5*4		4	4	MCD1*4		2	4	MCD2*4		1.33	4	MCD3*4
	10	5	MCD0.5*5		5	5	MCD1*5		2.5	5	MCD2*5		1.67	5	MCD3*5

## MCD SELECTION EXAMPLE



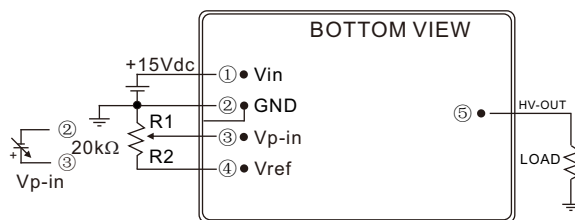
## MCD SPECIFICATIONS

PARAMETER	DESCRIBE
Input Voltage	+24Vdc ± 2%, input current ≤ 500mA. +15Vdc ± 2%, +12Vdc ± 2% available.
Output	0.5kV, 1kV, 2kV, 3kV available
Stability	0.001%/hr after a 30 minute warm-up period.
Temperature Coefficient	≤ 10ppm/°C.
Ripple	0.001% p-p of maximum output voltage.
Voltage Programming	By external 20kΩ potentiometer or external voltage control(Vp-in) 0 ~ +5 Vdc. Zin = 100kΩ.
Voltage Line Regulation	±0.001% for ±2% change in input voltage.
Voltage Load Regulation	0.01% of maximum output voltage, no load to full load.
Operating Temperature	0°C ~ +50 °C.
Storage Temperature	-40°C ~ +85°C.
Humidity	0% ~ 90% RH, non-condensing.
Cooling	Convection cooled.
Dimensions	0.67" H x 1.97" W x 2.36" D (17mm x 40mm x 60mm).
Weight	65g.

## MCD PIN INFORMATION

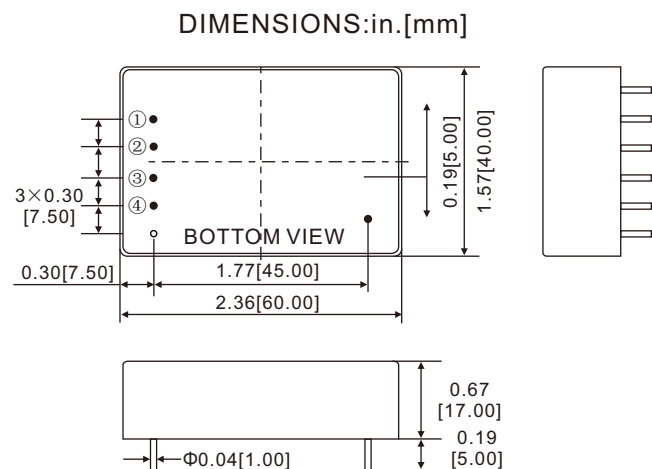
PIN	DESCRIPTION
1	Power Input +24Vdc ± 2%, Option +15Vdc ± 2%, +12Vdc ± 2%.
2	Power/Signal GND
3	Control Voltage Input, 0 ~ 5Vdc = 0 to max, Zin = 100kΩ.
4	+5Vdc Reference
5	High Voltage Output

## MCD CONNECTION DIAGRAM



- PIN ② and case are internally connected, and should be always grounded.
- External potentiometer of T.C ≅ 100ppm/°C, P.C ≅ 1/4W is recommended.

## MCD DIMENSIONS



## CHARACTERISTICS OF OUTPUT VOLTAGE SETTING

