

## M series

### General purpose high voltage proportional DC/DC converters



Two models available : +10kV & -10kV  
Some other models can be customized on demand.  
Nominal Power : 2.5W @ 70°C ambient



#### Features :

**These DC/DC converters are proportional : the output voltage is proportional to the input voltage**

Operating temperature range: -40/+70°C with no derating no heatsink	Isolation: none, output 0V output grounded	
Lightweight	Shielding cast aluminum housing	Dimension: L110xW63xH32mm
Excellent TC: 0.1%/°C	Excellent Load stability : 5%	Low ripple (<0.3%)
RoHS compliant product	Potted in an UL resin	HV Monitor output

Parameters	Specifications (at Tamb=25°C unless otherwise specified)
Input voltage Vin	From 0.7 to 24Vdc
Maximum output voltage	10kV
Full load o/p voltage tolerance	±5%
Polarity	Fixed, positive or negative, depends on the model
Nominal output current	250µA
Typical Full load input current	~200mA
Full load output ripple	0.01% V/V
Typical frequency	~100kHz
Output short circuit protection	Yes, permanent. Output short circuit current ~1.5mA
Monitor output (yellow wire)	1000:1, Zout=136kΩ
Input reverse voltage protection	None!
Voltage change No Load/Full Load	<+5% Typical (see graph)
O/p voltage Temperature Coefficient	1000ppm/°C over the operating temperature range
Isolation Input/output	None, the 0V output is internally connected to 0V input
Operating temperature range	0°C to +70°C ambient
Storage temperature range	-40°C to +85°C

#### Dimensions and mechanical

Case material	cast aluminum
Case dimensions	L 110 x W 62.0 x H 31.0mm
Weight	~350g
Insulation	Fully potted with an UL resin



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#### Connections

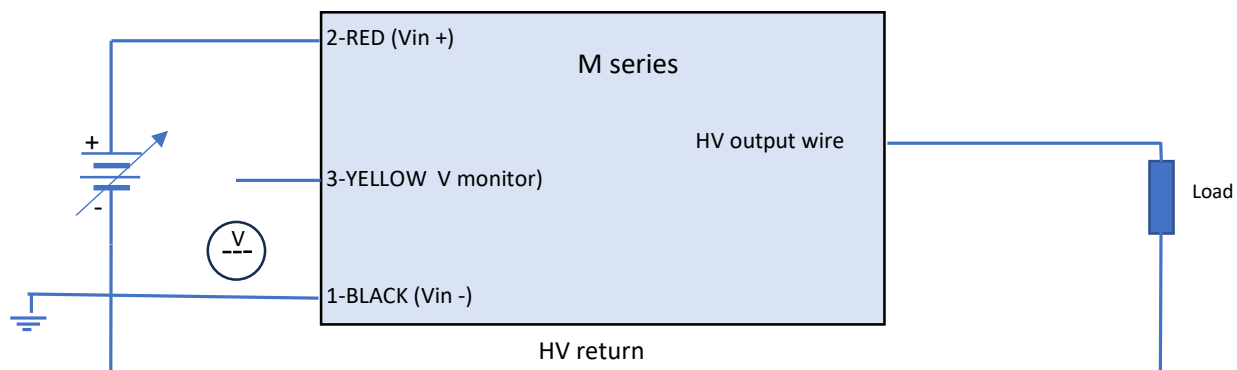
##### Line input

JST EHR-4 Receptacle:  
1-RED: Supply Vin  
2-BLACK: ground  
3-YELLOW: HV monitor output  
Cable length: 25cm

##### Output

SILICON WIRE 39X22 20kV L=30cm

#### Functional diagram



#### Ordering information

M10P2.5: +10kV

M10N2.5: -10kV



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