



Spellman's MX2.5 is a well-regulated high performance DC-DC converter featuring a "hot switchable" polarity reversal capability. The MX's low ripple specification makes it ideal for Mass Spectrometry applications; especially security detection systems, Dynodes, sample ionization as well as capillary electrophoresis and electrostatic printing applications.

The MX2.5 is rated at 2.5kV @ 60uA and is packaged in a shielded metal enclosure. This unit features a logic signal input to control output polarity reversal. A HV inhibit feature, along with voltage and current monitors are provided. Easily customized to meet OEM requirements, the MX2.5 can be provided with improved ripple performance and higher voltage and current capabilities.

TYPICAL APPLICATIONS

Mass Spectrometry
Capillary Electrophoresis
Electrostatic Printing

SPECIFICATIONS

Input Voltage:

+24Vdc, ± 0.5 volt

Input Current:

<200mA continuous

Output Voltage:

± 100 Vdc to ± 2.5 kV

Output Current:

0 to 60uA max.

Polarity:

Remotely reversible via logic signal, 300mS to settle to $\pm 1\%$, 1 Hz maximum switch rate

Voltage Regulation:

Load: 0.05% of maximum output voltage for a no load to full load change

Line: 0.05% of maximum output voltage for a 1 volt input line change

- **Hot Switchable Polarity Reversible Via a Logic Signal**
- **Well Regulated, Low Ripple**
- **Polarity Reversal Within 300mS**
- **Voltage and Current Monitor Outputs**
- **Remote HV Inhibit**
- **Small PCB Mount Module**
- **Arc and Short Circuit Protected**

Voltage Programming:

0 to 10 volt corresponds to 0 to 100% of rated output voltage

Voltage/Current Monitor:

0 to 10 volt corresponds to 0 to 100% of rated output voltage/current

Programming and Monitor Accuracy:

$\pm 1\%$ Voltage Programming/Monitor
 $\pm 2\%$ Current Monitor

Ripple:

$\leq 0.02\%$ Volts p-p

Stability:

0.02% per hour after 1 hour warmup

Temperature Coefficient:

≤ 50 ppm per degree C

Environmental:

Temperature Range:

Operating: 0°C to 40°C

Storage: -40°C to 85°C

Humidity:

10% to 90%, non-condensing

Cooling:

Convection cooled

Dimensions:

1.18" H X 2.36" W X 4.72" D (30mm X 60mm X 120mm)

Weight:

Approximately 8.82 oz. (250g)

Interface/Power Connector:

PCB mount pins

HV Output Connector:

PCB mount pins

Regulatory Approvals:

Compliant to EEC EMC Directive. Compliant to EEC Low Voltage Directive. RoHS Compliant.

MX2.5 INPUT/OUTPUT CONNECTIONS

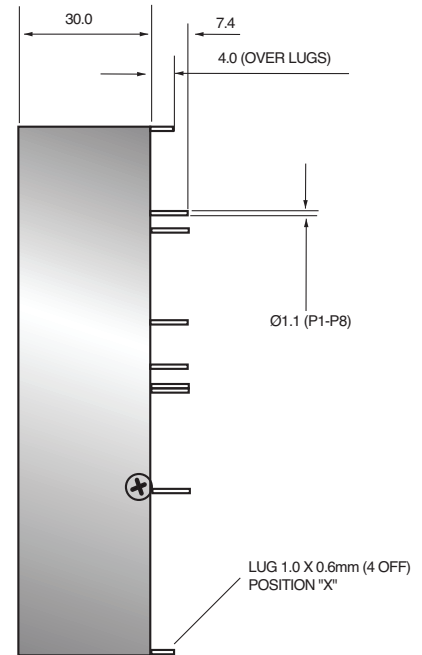
PIN	SIGNAL	SIGNAL PARAMETERS
1	+24V	Power Input
2	0v	Signal and Power Ground
3	V _{prog}	0-10V Programming Voltage
4	Polarity Change	Polarity Change Input
5	Shutdown	Output Inhibit, Disables HV Output Down to <60V Within 300ms
6	V _{mon}	0-10V Output Voltage Monitor
7	Output	HT Output
8	I _{mon}	0-10V Output Current Monitor

How to Order:

Standard: PART NO.:MX2.5PN24

DIMENSIONS: mm

SIDE VIEW



BOTTOM VIEW ON PINS

