



- **Hot Switchable Polarity Reversible Via a Logic Signal**
- **Well Regulated, Low Ripple**
- **Polarity Reversal Within 250mS (Option to Improve to 100mS)**
- **Voltage and Current Monitor Outputs**
- **Remote HV Inhibit**
- **Flying High Voltage Output Cable**
- **Voltage or Current Control Options**

Spellman's MX10 is a well-regulated high performance DC-DC converter featuring a "hot switchable" polarity reversal capability. The MX10'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 MX10 is rated at 10kV @ 100uA 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 MX10 can be provided with current control, improved ripple performance and higher voltage and current capabilities.

TYPICAL APPLICATIONS

Mass Spectrometry
Capillary Electrophoresis
Electrostatic Printing

OPTIONS

VCC: Voltage and Current Control

SPECIFICATIONS

Input Voltage:

+24Vdc, ± 1 volt

Input Current:

<400mA continuous
<1.2A during reversing

Output Voltage:

± 200 Vdc to ± 10 kV

Output Current:

0 to 100uA max.

Polarity:

Remotely reversible via logic signal, 250mS to settle to $\pm 2\%$, 1 Hz maximum switch rate

Voltage Regulation:

Load: 0.1% of maximum output voltage
for a no load to full load change
Line: 0.1% of maximum output voltage for a
1 volt input line change

Current Regulation: (VCC Option)

Load: 0.1% of maximum rated current for a
0 to 100% voltage change
Line: 0.1% of maximum rated current for a
1 volt input line change

Voltage/Current 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

Programming and Monitor Accuracy:

$\pm 2\%$

Ripple:

$\leq 0.005\%$ Volts p-p

Stability:

0.1% per hour after 1 hour warmup

Temperature Coefficient:

≤ 100 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:

1.63" H X 6.61" W X 4.53" D (41.5mm X 168mm X 115mm)

Weight:

Approximately 3 pounds (1.4kg)

Interface/Power Connector:

9 pin male D connector

HV Output Connector:

39.4" (1m) Flying Lead of URM76 LSF cable

Regulatory Approvals:

Compliant to EEC EMC Directive. Compliant to EEC
Low Voltage Directive. UL/CUL recognized file E227588.
RoHS Compliant.

MX10 TERMINAL BLOCK 9 PIN

| PIN | SIGNAL | SIGNAL PARAMETERS |
|-----|---------------------------|--|
| 1 | Voltage Monitor | 0-10V=0-100% of Rated Output |
| 2 | External Inhibit Input | Open or >10V = "OFF"; <4V = "ON" |
| 3 | Current Programming Input | 0-10Vdc = 0-100% of Rated Output (on VCC option) |
| 4 | Signal Ground | Signal Ground |
| 5 | Current Monitor | 0-10Vdc = 0-100% of Rated Output |
| 6 | Polarity Control Input | Open or >10V = "NEGATIVE"; <4V = "POSITIVE" |
| 7 | Voltage Programming Input | 0-10Vdc = 0-100% of Rated Output |
| 8 | +24V Input | +24V Input |
| 9 | Power Ground | Power Ground |

How to Order:

Standard: PART NO.:MX10PN24

VCC Option: PART NO.:MX10PN24/VCC

DIMENSIONS: in.[mm]

SIDE VIEW



TOP VIEW

