



- **$\pm 10\text{kV}$ 25ms Polarity Reversing Speed**
- **Integrated Electron Multiplier Supply**
- **Precision Analog Voltage Control**
- **High Stability**
- **Low Ripple and Noise**
- **High Voltage Inhibit Control**
- **RoHS Compliant**

Spellman's RoHS compliant MX10 Plus is a well-regulated high performance fast reversible dynode supply featuring a 25ms "hot switchable" polarity reversing capability with an integrated -2.3kV electron multiplier supply.

The MX10 Plus's low ripple specification is typical of the topologies that make Spellman High Voltage your ideal choice for mass spectrometry applications; especially security detection systems, dynodes, sample ionisation as well as capillary electrophoresis and electrostatic printing applications. The MX10 Plus has been designed especially for dynode detector applications.

The MX10 Plus can be easily tailored to an OEM's requirement, such as improved ripple performance, or different voltage and/or current capabilities.

TYPICAL APPLICATIONS

Dynode Supply
Electron Multiplier Supply

SPECIFICATIONS

Input Voltage:

+15Vdc, $\pm 0.75\text{Vdc}$

Input Current:

$\leq 500\text{mA}$ nominal continuous
 $< 2\text{A}$ during reversing

Temperature Coefficient:

$\leq 100\text{ppm}$ per degree C

Environmental:

Temperature Range:

Operating: 5°C to 45°C

Storage: -35°C to 85°C

Humidity:

10% to 85%, non-condensing

Stability:

(constant operating conditions)

$\leq 300\text{ppm}$ per hour after 1 hour warm up

Protection:

Arc and Short circuit protected

Regulatory Approvals:

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

DYNODE SPECIFICATIONS

Output Voltage:

$\pm 10\text{kV}$

Output Current:

$10\mu\text{A}$

Output Polarity:

Remotely reversible via TTL logic signal

Switching Speed:

25ms to settle 90% into 50pF load

Voltage Regulation:

Line: $\leq 0.02\%$ for a 1.5V input voltage change

Ripple:

≤ 10 Volts p-p

ELECTRON MULTIPLIER SPECIFICATIONS

Output Voltage:

Fixed: -2.3kV

Output Polarity:

Negative

Output Current:

$\leq 230\mu\text{A}$

Voltage Regulation:

Line: $\leq 0.02\%$ for a 1.5V input voltage change

Load: $< 5\text{V}$ for for no load to 22M Ohms load change

Ripple:

$\leq 200\text{mV}$ p-p @ 2.3kV into 22M Ohm load

Output Rise Time:

10ms

Output Fall Time:

10ms

Dimensions:

2.00" H X 5.30" W X 8.00" D (50.8mm X 134.6mm X 203mm)

Weight:

Approximately 3.3 pounds (1.5kg)

Interface/Power Connector:

20 pin flat ribbon connector

Output Connector:

$\pm 10\text{kV}$: modified Alden #A200 connector

-2.3kV: MHV Kings bulkhead KV-79-15 or similar

MX10 PLUS TERMINAL BLOCK 20 PIN

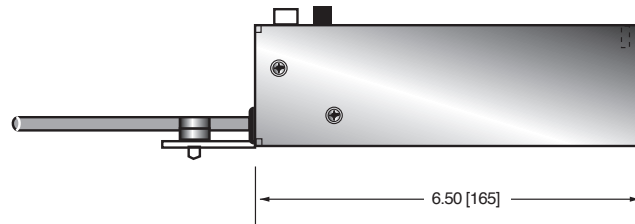
PIN	SIGNAL
1	+15Vdc Input
2	+15Vdc Input
3	N/C
4	N/C
5	Ground
6	Ground
7	Output Voltage Control
8	Signal Reference Ground
9	10kV On
10	10kV On
11	Output Polarity Control
12	EM Protect
13	-2.3kV Output Monitor
14	EM On
15	Ground
16	Ground
17	±10kV Output Monitor
18	N/C
19	+15Vdc Input
20	+15Vdc Input

How to Order:

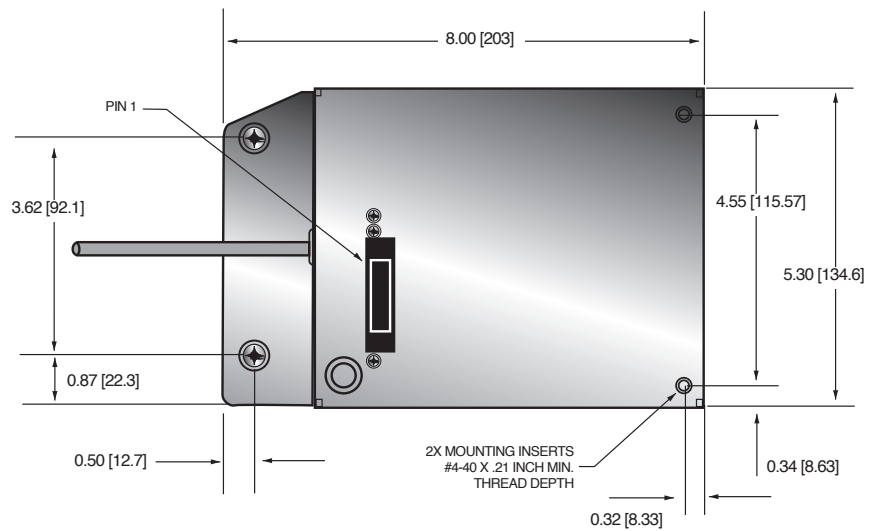
Standard: PART NO.:MXP10PN15

DIMENSIONS: in.[mm]

SIDE VIEW



TOP VIEW



FRONT VIEW

