



Spellman's MXR Series are well-regulated high performance DC-DC converters. The MXR's low ripple specification makes it ideal for Mass Spectrometry and electron microscopes. The MXR20 is rated at 20kV @ 300uA and MXR30 is rated at 30kV @ 300uA. Both are packaged in a shielded metal enclosure. These units feature 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 MXR Series can be provided with current control, improved ripple performance and higher voltage and current capabilities.

### TYPICAL APPLICATIONS

Mass Spectrometry  
Electron Microscopes  
Capillary Electrophoresis  
Electrostatic Printing

### OPTIONS

/DDC 2      RS-232

### SPECIFICATIONS

#### Input Voltage:

24Vdc ( $\pm 10\%$ )

#### Input Current:

1.25A

#### Output Voltage:

$\pm 20V$  to  $\pm 20kV$  (MXR20)

$\pm 30V$  to  $\pm 30kV$  (MXR30)

#### Output Current:

300 $\mu$ A

- **Hot Switchable Polarity Reversible within 2s settling to <3ppm**
- **Remote Polarity Reversal and HV Inhibit**
- **Voltage and Current Monitor Outputs**
- **Arc and Short Circuit Protected**
- **Well Regulated, Low Ripple, High Stability**
- **UL Recognized**
- **OEM Customization Available**

#### Voltage Regulation:

Load: 50ppm of maximum output voltage for a no load to full load change

Line: <20ppm of maximum output voltage for a 5% input line change

#### Programming and Monitor Accuracy:

$\pm 2\%$  Voltage Programming/Monitor

#### Ripple:

10ppm

#### Stability:

0.1% per hour after 1 hour warmup

#### Temperature Coefficient:

10ppm/ $^{\circ}C$

#### Reversing Time:

2s for +20kV to -20kV or +30kV to -30kV settling to <3ppm, faster versions are available

#### Environmental:

Temperature Range:

Operating: 0 $^{\circ}C$  to 50 $^{\circ}C$

Storage: -40 $^{\circ}C$  to 85 $^{\circ}C$

Humidity:

10% to 90%, non-condensing

#### Cooling:

Convection cooled

#### Dimensions:

2.05" H X 8.47" W X 9.13" D (52mm X 215mm X 230mm)

#### Weight:

Approximately 8.80 pounds (4.0kg)

#### Input Connectors:

Power: 2 way Molex Mini-fit Jr connector

Digital: 10 way 'IDC Ribbon cable' connector

Analogue: 12 way Molex KK5.08 series connector

#### Output Connectors:

Standard output either via co-ax cable (open ended) or GES HB30 receptacle, other output options available.

#### Regulatory Approvals:

UL Recognized to UL61010-1, CE marked to

EN61010-1, RoHS Compliant

### MXR POWER VIA 2 WAY MOLEX

PIN	SIGNAL
1	+24Vdc Input
2	Ground return for +24Vdc

### MXR DIGITAL INPUT— 10 WAY IDC RIBBON CONNECTOR

PIN	SIGNAL
1	Transmit data (output) with respect to pin 1
2	Serial signal ground return (if required)
3	Receive data (input) with respect to pin 2
4	N/C
5	N/C
6	N/C
7	Interlock opto-isolator input
8	Interlock opto-isolator signal return
9	Polarity change signal opto-isolator input
10	Polarity change signal opto-isolator signal return

### MXR ANALOG INPUT— 12 WAY MOLEX KK5.08 CONNECTOR

PIN	SIGNAL
1	Current monitor output
2	+24Vdc Input
3	Voltage monitor output
4	N/C
5	N/C
6	N/C
7	Voltage program input
8	Polarity set input
9	Signal ground
10	+24Vdc return
11	N/C
12	Polarity status output

#### How to Order:

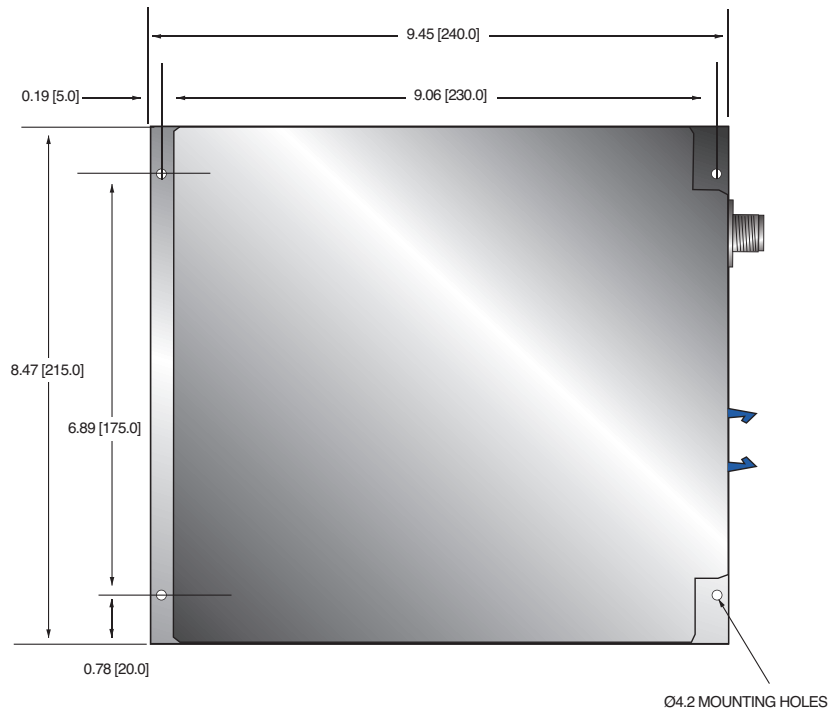
Standard: PART NO.: MXR20PN24  
PART NO.: MXR20PN24

DIMENSIONS: in.[mm]

SIDE VIEW



TOP VIEW



FRONT VIEW

