

# General Purpose High Voltage Supply

0 to + or - 1,000 through 0 to + or - 33,000 VDC @ 10 Watts  
4000 Series

www.emcohighvoltage.com

**EMCO**  
High Voltage Corporation



The 4000 Series is a line of fully adjustable DC to DC converters providing an economical source of high voltage that is ideal for CRT's, lasers, Q switches, PMT's, detectors, electron and ion guns, capacitor charging, test equipment, and many other applications. These units feature remote voltage programming, resistance programming, or manual adjustability via an externally

accessible potentiometer. Short circuit protection, arc protection, and reverse polarity protection are standard as well as remote on/off and a 0 to 10 volt output voltage monitor. These units also feature excellent EMI/RFI shielding. Two #6-32 studs mount the supply in a three inch mounting pattern. Call, e-mail or fax your requirements for immediate attention.

## FEATURES

0 to 100% Adjustability  
Voltage Programmable  
Voltage Monitor \*  
Remote On/Off Control  
EMI/RFI Shielding  
Short Circuit Protection  
Reverse Polarity Protection  
Arc Protection

\* Excluding Models 4300 & 4330

## OPTIONS

Negative Output Voltage,  
put "N" after model  
(For example: 4300N)  
Output Connector

## APPLICATIONS

Cathode Ray Tubes  
Lasers and Q Switches  
Capacitor Charging  
Test Instrumentation  
Electrostatic Field Generators  
Electrophoresis

PROGRAMMING	
<b>VOLTAGE:</b>	Apply 0-10V to pin 5 for 0-100% output.
<b>RESISTANCE:</b>	Connect potentiometer to pin 4 (reference voltage), connect wiper arm to pin 5, and connect potentiometer to ground.
<b>MANUAL:</b>	Connect pin 6 to pin 5, turn front panel pot for voltage adjust.

PIN	FUNCTION
1	On-Off Control
2	Ground/Case
3	+24 Volt Input
4	10 Volt Reference
5	Programming Voltage
6	Internal Potentiometer
7	Voltage Monitor

Dimensional Tolerances:  $\pm .30$  (.76mm)  
(Metric equivalents in parentheses)

MODEL	OUTPUT VOLTAGE	OUTPUT CURRENT	RIPPLE
4010	0 to 1,000	10 mA	.1%
4020	0 to 2,000	5 mA	.1%
4030	0 to 3,000	3.3 mA	.1%
4050	0 to 5,000	2 mA	.1%
4070	0 to 7,000	1.4 mA	.1%
4100	0 to 10,000	1 mA	.1%
4120	0 to 12,000	.8 mA	.1%
4150	0 to 15,000	.67 mA	.1%
4200	0 to 20,000	.5 mA	.2%
4300	0 to 30,000	.33 mA	.2%
4330	0 to 33,000	.30mA	.2%

## PHYSICAL CHARACTERISTICS

MODELS 4010 thru 4200 • SIZE: 4.1"(104) x 3.1"(78) x 1.4"(36)

MODELS 4300 thru 4330 • SIZE: 4.1"(104) x 3.6"(91) x 1.4"(36)

WEIGHT: 1.5 Pound (.675 kg.) Approx.

CASE MATERIAL: Black Anodized Aluminum

INPUT CONNECTOR: Molex 09-75-2074

MATING CONNECTOR: Molex 09-50-3071 (Supplied)

MOLEX PINS: 08-50-0106

MODELS 4010 thru 4200 • HV LEAD: 30KV 22 AWG

MODELS 4300 thru 4330 • HV LEAD: 40KV 20 AWG

## ELECTRICAL SPECIFICATIONS

INPUT VOLTAGE: +24 Volts (+20%- 5%)

OUTPUT VOLTAGE: See Table

OUTPUT CURRENT: See Table

REGULATION: Less than 0.2% (No load to full load)

ANALOG CONTROL: 0 to 10 Volts=0 to 100% Output

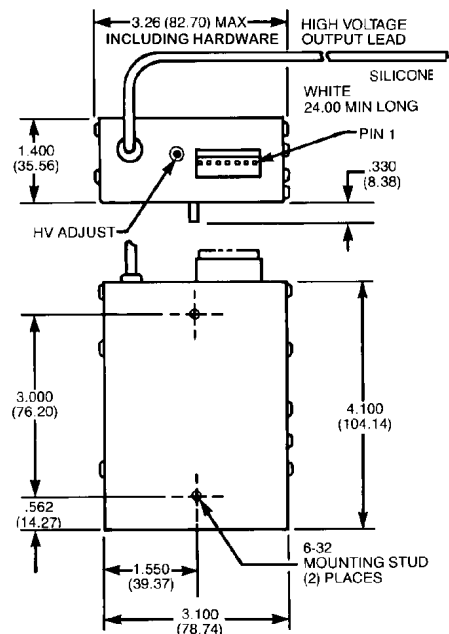
VOLTAGE MONITOR: 0 to 10 Volts=0 to 100% Output

ON/OFF CONTROL: On=0 Volts or N.C.

Off=5 Volts

REFERENCE OUTPUT: 10 Volts ( $\pm 0.5\%$ )

OPERATING TEMP: -10° to +60° C



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We reserve the right to make changes without notification

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