

General Purpose High Voltage Supply

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



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. The 4000 Series has a built-in 10V precision reference output available. 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:
high impedance input, >100K ohm
- Voltage Monitor *²
- Remote On/Off Control
- EMI/RFI Shielding
- Short Circuit Protection
- Reverse Polarity Protection
- Arc Protection

APPLICATIONS

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

OPTIONS

- Negative Output Voltage,
put "N" after model (Forexample: 4300N)
- RoHS(- 'R' suffix denotes the product is designed to meet RoHS requirements i.e 4010R)

- Epoxy: A. Low Outgassing (NASA approved per ASTM E-595-93)
- B. UL 94 V0 flammability rating

Output Connector (AMP#861753-1): Available for models 4010 thru 4150

PHYSICAL CHARACTERISTICS

- MODELS 4010 thru 4200 • SIZE: 4.1 (104) x 3.1 (78.7) x 1.4 (35.56)
- MODELS 4300 thru 4330 • SIZE: 4.1 (104) x 3.6 (91.4) x 1.4 (35.56)
- WEIGHT: 1.5 Pound (.675 kg.) Approx.
- CASE MATERIAL: Black Anodized Aluminum
- INPUT CONNECTOR: Molex Header 09-75-2074
- MATING CONNECTOR: Molex Crimp Terminal Housing 09-50-3071 (Supplied)
- MOLEX Crimp Terminals: 08-50-0106 (supplied)
- MODELS 4010 thru 4200 • HV LEAD: 30KV 22 AWG
- MODELS 4300 thru 4330 • HV LEAD: 40KV 20 AWG

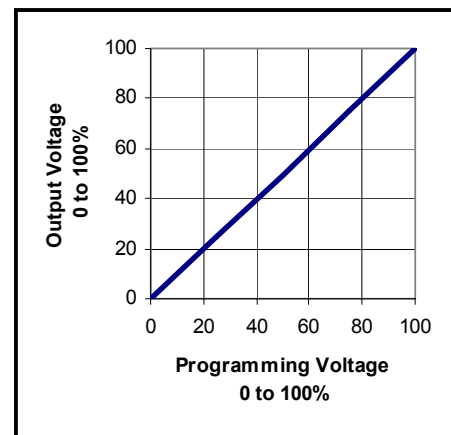
ELECTRICAL SPECIFICATIONS

- INPUT VOLTAGE: +24 Volts (+20%-5%)
- OUTPUT VOLTAGE: *See Table*
- OUTPUT CURRENT: *See Table*
- 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 (± 0.5%)
- OPERATING TEMP: -10° to +60° C

MODEL	OUTPUT VOLTAGE	OUTPUT * ¹ CURRENT	RIPPLE P-P	INPUT CURRENT	
				NO LOAD	FULL LOAD
4010	0 to 1,000	10 mA	.1%	<100 mA	<1.0 A
4020	0 to 2,000	5 mA	.1%	<100 mA	<1.0 A
4030	0 to 3,000	3.3 mA	.2%	<130 mA	<1.0 A
4050	0 to 5,000	2 mA	.1%	<150 mA	<1.0 A
4070	0 to 7,000	1.4 mA	.1%	<160 mA	<1.0 A
4100	0 to 10,000	1 mA	.1%	<175 mA	<1.0 A
4120	0 to 12,000	.8 mA	.1%	<190 mA	<1.0 A
4150	0 to 15,000	.67 mA	.1%	<190 mA	<1.0 A
4200	0 to 20,000	.5 mA	.2%	<230 mA	<1.0 A
4300* ²	0 to 30,000	.33 mA	.4%	<270 mA	<1.0 A
4330* ²	0 to 33,000	.30mA	.2%	<400 mA	<1.0 A

*Note: 1. At Maximum Rated Output Voltage.
2. No Voltage Monitor

Programming Voltage vs Output Voltage



e-mail sales@emcohighvoltage.com
Web site www.emcohighvoltage.com

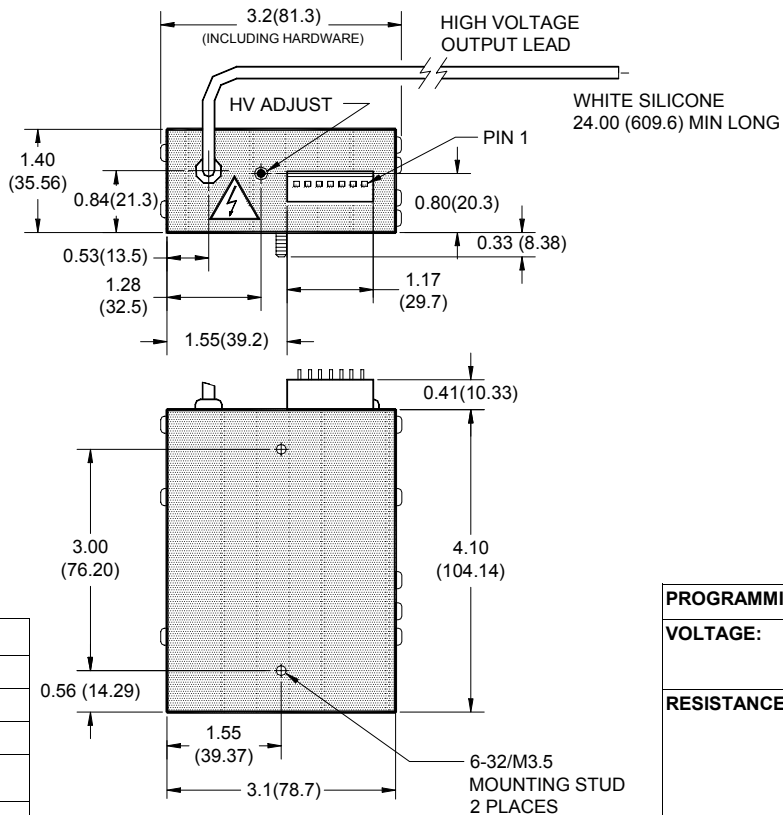
Phone (209) 267-1630 Fax (209) 267-0282
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We reserve the right to make changes without notification

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



4010-4200



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

PROGRAMMING

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

4300-4330

