



Spellman's CZE1000R is a full feature rack mountable high voltage power supply ideal for laboratory usage. It's designed to meet the needs of applications requiring a hot switched reversible output voltage. The output polarity can be quickly and safely reversed via a front panel switch.

Both the output voltage and current are fully adjustable from 0 to 30kV and 0 to 300uA via front panel ten turn locking counting dials. Remote control operation is done by 0 to +10Vdc programming signals; either user generated or using the provided +10 Vdc reference and external potentiometers.

Front panel voltage and current meters provide local monitoring. Voltage and current test points are provided such that 0 to 10Vdc corresponds to 0 to 100% rated output.

A two position, normally closed, external interlock is provided for protection of external high voltage accessible areas. If the interlock is opened the high voltage will shut off and fall to zero in less than one second and not be able to be re-energized until the interlock is closed.

Excellent load and line regulation specifications along with outstanding stability and low ripple of the CZE1000R assure a stable high voltage output for consistent process results.

## TYPICAL APPLICATIONS

- Electrospinning
- Mass Spectrometry
- Capillary Electrophoresis
- Electrostatic Research

## OPTIONS

- 220** 220Vac Input Voltage
- RPO** Rear Panel HV Output

## SPECIFICATIONS

### Input Voltage:

115Vac,  $\pm 10\%$ , 50/60Hz

### Input Current:

Less than 1 amp

### Efficiency:

75% typical

### Output Voltage:

0 to 30kV

### Polarity:

Auto reversible via front panel switch

- **Ideal for Electrospinning**
- **0-30kV Local or Remote Programming**
- **0-300 $\mu$ A Local or Remote Programming**
- **Polarity Reversible Upon Command in <1 Sec at No Load**
- **Low Stored Energy, Current Limited Output**
- **Full Feature Front Panel, Ideal for Laboratory Usage**

### Output Current:

0 to 300 $\mu$ A

### Power:

9 watts, maximum

### Line Regulation:

0.01% for a 10% input voltage change

### Load Regulation:

0.01% for a full load change

### Ripple:

0.1% Vp-p

### Stability:

0.02% per 8 hours (after 1/2 hr warmup)

### NL Time Constant:

100ms

### Stored Energy:

0.2 Joules at 30kV

### Temperature Coefficient:

100ppm/ $^{\circ}$ C

### Operating Temperature:

0 $^{\circ}$ C to 40 $^{\circ}$ C

### Storage Temperature:

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

### Humidity:

10% to 85% RH, non condensing

### Cooling:

Convection cooled

### Dimensions:

5.25"H x 19"W x 17"D (13.3cm x 48.3cm x 43.2cm).

### Weight:

22lbs. (10kg)

### Interface Connector:

14 pin terminal block

### AC Input Connector:

IEC320 connector with 6' (1.83m) cord

### HV Output Connector:

Detachable 36" (0.91m) cable provided

### Regulatory Approvals:

Designed to meet EEC EMC Directive. Designed to meet EEC Low Voltage Directive.

DIMENSIONS: in.[mm]

### CZE1000R TERMINAL BLOCK 14 PIN

PIN	SIGNAL	PARAMETERS
1	+10Vdc Reference Output	+10Vdc, 4mA maximum
2	Internal Voltage Control	Front Panel Program Voltage (programming potentiometer)
3	Voltage Program Input	0 to 10Vdc = 0 to 100% rated output, Z <sub>in</sub> = 10MΩ
4	Internal Current Control	Front Panel Current Control (programming potentiometer)
5	Current Program Input	0 to 10Vdc = 0 to 100% rated output, Z <sub>in</sub> = 10MΩ
6	Signal Common	Ground
7	Voltage Test Point	0 to 10Vdc = 0 to 100% rated output, Z <sub>out</sub> = 10kΩ, 1%
8	Current Test Point	0 to 10Vdc = 0 to 100% Rated Output, Z <sub>out</sub> = 10kΩ, 1%
9	External Interlock Out	32Vdc @ 2 amps, max, (connect to pin 10 through safety switch)
10	External Interlock In	Return for interlock (connect to pin 9 through safety switch)
11	+10Vdc Reference Output	+10Vdc, 4mA maximum
12	Enable	Open or ground = HV OFF, >3.4Vdc (up to 15Vdc) = HV ON
13	Spare	No Connection
14	Spare	No Connection

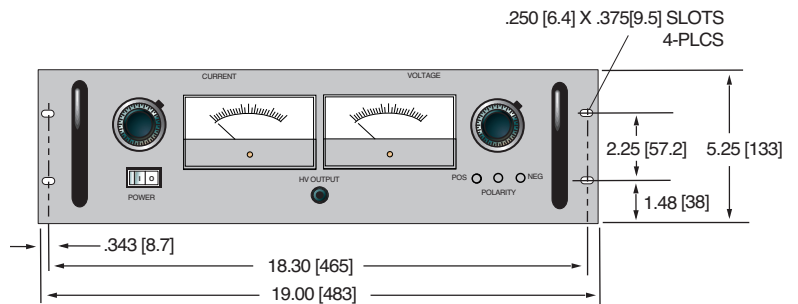
**Note:**

The unit is shipped with the following pins jumpered for front panel operation: 2-3, 4-5, 9-10, 11-12. It is strongly recommended to remove the 9-10 jumper and use a high voltage safety interlock switch.

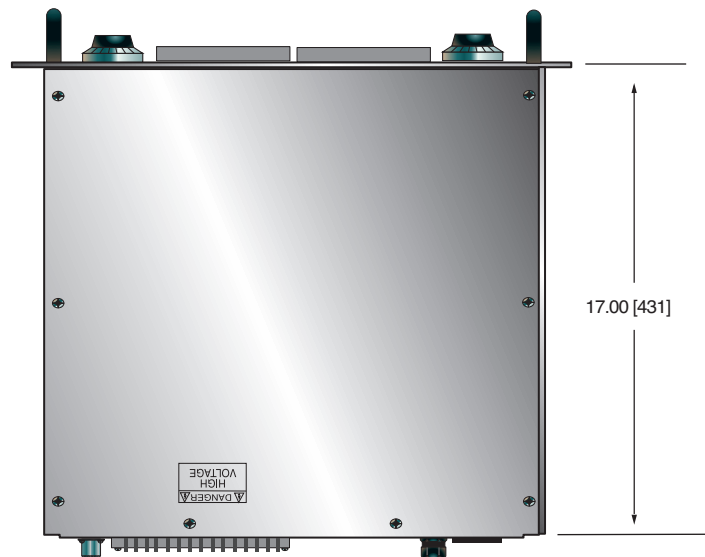
**High Voltage Cable:**

A mating high voltage connector is provide with the unit. Have a spare on hand or replace broken/lost mating high voltage cables by ordering Spellman part number 105719-034

**FRONT VIEW**



**TOP VIEW**



**BACK VIEW**

