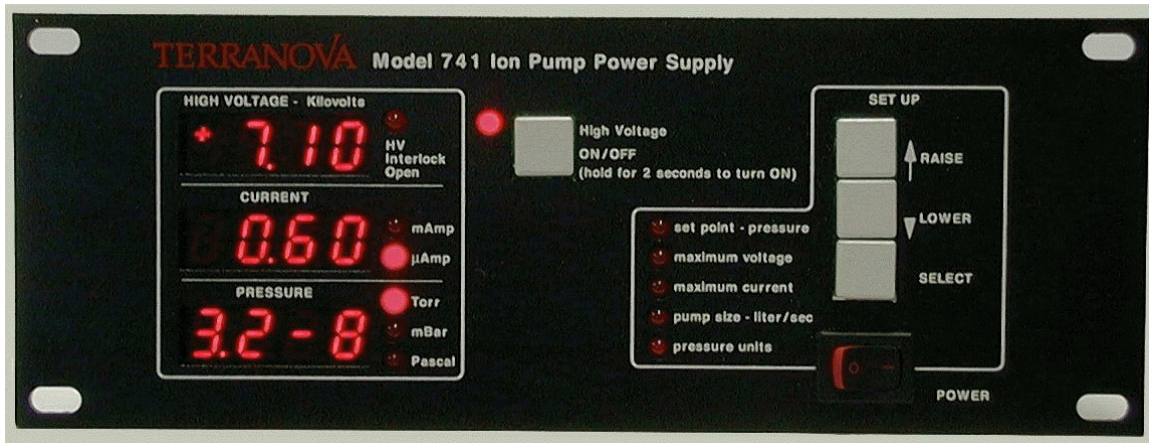


# Terranova Model 741

## Ion Pump Power Supply



The Terranova Model 741 Ion Pump Control Unit is designed to supply operating power to a sputter ion pump and to display the voltage, current and pressure. It is designed to start and operate pumps of 20 l/s and smaller and to operate larger pumps of any size at lower pressures.

The Terranova Model 741 is a programmable, microprocessor controlled unit, which gives it great versatility in operation, display, control and data communication. Some major features include:

- Programmable High Voltage Output
- Programmable Maximum Current
- Programmable Pump Size for Pressure Display
- Programmable Process Control Set Point
- Display for voltage, current and pressure
- RS 232 Serial I/O for Data Collection and Computer Control
- Analog Outputs for Monitoring Voltage and Current
- Ground Sensing Circuit for Operator Safety
- CE Conformance for EMI, EMC and Safety
- Universal Power Supply: 100-250 Volts; 50/60 Hz or DC



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## 1. Electrical Specifications

### INPUT PARAMETERS

|         |   |
|---------|---|
| Voltage | Universal: 100-250 Volts, 50/60 Hz or DC. |
| Current | 1 Amp maximum in START mode (115VAC).     |

### OUTPUT PARAMETERS

|                       |                      |   |
|-----------------------|----------------------|---|
| Open Circuit Voltage  | Operator Set         | +/-3500 to 7000 VDC<br>(Units shipped with + high voltage polarity unless otherwise specified. Switching polarity must be performed at the factory) |
| Short Circuit Current | Operator Set         | 25 milliamps maximum  |
| Overload Protection   | Fuse for line power. | Power automatically adjusted for pump starting.   |
| Display               | LED Displays         | 3 Digits plus Sign (+/-) X.XX - kilovolts<br>3 Digits Current - milliamp and microamp autoranging<br>2 Digits plus Exponent for Pressure            |
| Pressure Units        | Operator Set:        | Torr, mbar, Pascal  |

### ANALOG OUPUTS

|         |   |
|---------|---|
| Voltage | 0 - 10 volts; 1 volt per 1000 volts   |
| Current | 0 - 10 volts; User Selectable<br>200 microamps per volt to 2000 microamps<br>2 milliamps per volt to 20 milliamps |

## 2. Physical Specifications

### CONNECTORS/CABLES

|                     |  |
|---------------------|--|
| Line Power          | 6.7 foot (2 meter) length Belden Type 17250 or equivalent NEMA 5-15P grounding plug. PH-290B                   |
| High Voltage Output | SHV/BNC Connector, Rated at 10KV<br>High Voltage Cables: -10 Series, See Duniway Stockroom Catalog or Web Site |
| Serial I/O          | 9-Pin D-sub type Connector, Female Pins  |
| Miscellaneous I/O   | 15-Pin D-sub type Connector, Female Pins   |
| Ground Sense        | Isolated 8/32 Threaded Stud  |

### DIMENSIONS

|               |   |
|---------------|---|
| Panel         | 9.5 in (24.1 cm) W x 3.5 in (90 cm) H                                   |
| Cabinet Depth | 16 in (406 cm) deep<br>(Allow 4 in (10.2 cm) extra for cable clearance) |

### WEIGHT

|                  |               |                 |               |
|------------------|---------------|-----------------|---------------|
| Installed Weight | 6 lb (2.7 kg) | Shipping Weight | 10 lb (4.5kg) |
|------------------|---------------|-----------------|---------------|

### OPERATING ENVIRONMENT

|             |  |
|-------------|--|
| Temperature | 32°F to 105°F (0°C to 40°C)                |
| Humidity    | 0 - 80% Relative Humidity, Non- condensing |
| Altitude    | Sea Level to 10,000 feet (3100 meters)     |