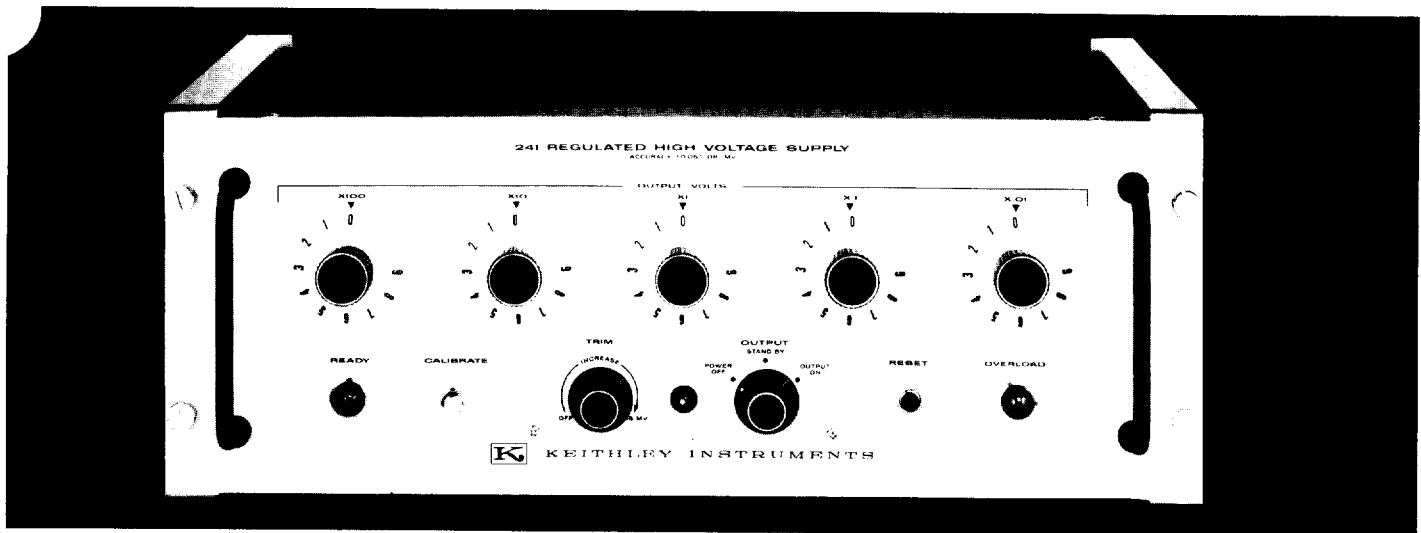


regulated high voltage supply



MODEL 241

- 0-1000 volts
- accuracy 0.05%
- output to 20 milliamperes
- stability 50 ppm per hour

Model 241 applications include the calibration of meters, transducers and power supplies, and the testing of leakage resistance of insulation, capacitors and diodes. It can also be used as a secondary laboratory standard, dc standard for ac transfer measurements, voltage reference for analog computers and excitation potential source for photocells and ion chambers.

Excellent stability of 0.005% per hour is gained by using a highly stable zener diode as a reference standard. It is unaffected by rough handling or shock and will not be damaged in ordinary use. A photo-chopper, having no moving parts and requiring no maintenance, is used to compare the output to the zener reference for continuous regulation.

Voltages from zero to 1000 volts at up to 20 milliamperes—plus, minus or floating—can be dialed in 0.01-volt steps with the five in-line dials. Accuracy of the output is within 0.05% of the dial setting.

Both the Model 241 and the external circuitry are protected from overload by a fast acting relay circuit. This circuit disconnects the output within 50 milliseconds when current drain exceeds about 24 milliamperes. A reset front panel button restores operation.

Other features include noise and hum below 1 millivolt rms, bench or rack mounting and a stand-by position which removes voltage from the output, making possible connections while the instrument is turned on.

specifications, model 241

OUTPUT:

Voltage: 0 to 1000 volts dc in 0.01-volt steps.

Current: 20 milliamperes dc maximum.

Polarity: Positive or negative.

Floating: 500 volts maximum off chassis ground.

ACCURACY: $\pm 0.05\%$ of dial setting or ± 1 millivolt, whichever is greater.

RESOLUTION: A "Trim" potentiometer permits interpolation between steps with a resolution of better than 100 microvolts.

RESETABILITY: $\pm 0.025\%$.

STABILITY: $\pm 0.005\%$ per hour with constant load, line and ambient temperature.

TEMPERATURE COEFFICIENT OF REFERENCE: ± 10 ppm/ $^{\circ}$ C.

LINE REGULATION: $\pm 0.005\%$ or 1 millivolt for 10% line change.

LOAD REGULATION: $\pm 0.005\%$ from no load to full load.

RIPPLE AND NOISE: Less than 1 millivolt rms above 5 cps.

OUTPUT IMPEDANCE: Less than 0.05 ohm at dc.

RECOVERY TIME: No load to full load, less than 1 second to rated accuracy.

OVERLOAD PROTECTION: Output is disconnected within 50 milliseconds if current exceeds approximately 24 milliamperes.

CONNECTORS: Output: Teflon-insulated UHF type.

POWER: 105-125 or 210-250 volts, 50-60 cps, 105 watts.

DIMENSIONS, WEIGHT: 7" high x 19" wide x 12" deep; net weight, 26 pounds.

ACCESSORIES SUPPLIED: Mating connectors.

ACCESSORIES AVAILABLE:

Model 2411 End Frames:

adapts Model 241 for bench use \$ 15

PRICES:

Model 241 Regulated High Voltage Supply (Rack) . . . \$800