



Figure 1-1. Model 427A Voltmeter

Table 1-1. Specifications

DC VOLTMETER

Voltage Ranges: ± 100 mV to ± 1000 V full scale in a 1, 3, 10 sequence (9 ranges).

Accuracy: $\pm 2\%$ of full scale on any range (0°C to 50°C).

Input Resistance: 10 megohms on all ranges.

AC Rejection: Superimposed peak ac voltages (60 Hz and above) 100 times greater than full scale affects reading less than 1%. Maximum 450 volts peak.

Overload: 1200 Vdc on any range.

AC VOLTMETER

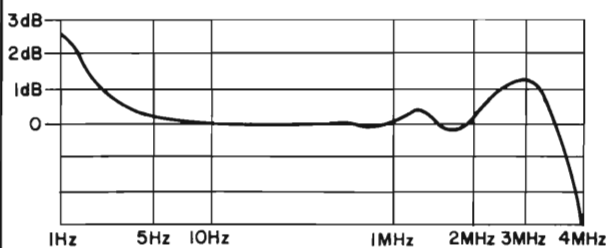
Voltage Ranges: 10 mV to 300 V rms full scale in a 1, 3, 10 sequence (10 ranges).

Frequency Range: 10 Hz to 1 MHz.

Accuracy: (0°C to 50°C).

RANGE	$\pm 2\%$ OF FULL SCALE
0.01 V - 30 V	10 Hz - 1 MHz
100 V - 300 V	10 Hz - 100 KHz

Frequency Response:



Frequency response 10 mV to 30 V ranges.

AC VOLTMETER (Cont'd)

Input Impedance: 10 megohms shunted by 40 pF on 10 mV to 1 V ranges; 20 pf on 3 V to 300 V ranges.

Response: Responds to the average value of the input; calibrated in rms volts for a sine wave input.

Overload: 300 V/rms momentarily, 1 V range and below.
425 V/rms maximum above 1 V range.

OHMMETER

Resistance Ranges: 10 ohms center scale to 10 megohms center scale (7 ranges).

Accuracy: $\pm 5\%$ of reading at midscale (0°C to $+50^\circ\text{C}$).

Polarity: Common terminal negative.

Source Current:

RANGE	OPEN CIRCUIT VOLTAGE	SHORT CIRCUIT CURRENT
X10	0.1 V	10 mA
X100	0.1 V	1 mA
X1K	1 V	1 mA
X10K	1 V	100 μA
X100K	1 V	10 μA
X1M	1 V	1 μA
X10M	1 V	0.1 μA

GENERAL

Floating Input: May be operated up to 500 Vdc above ground. (Ohms input open in any function except ohms--volts input open when instrument is in off position.)

Power: 22-1/2 volt dry cell battery. (Eveready No. 763 or RCA VS102.)

Option 01: Battery operation and ac line operation (selectable on rear panel). 115 or 230 V $\pm 20\%$, 50 Hz to 400Hz, 1/2 W.