



Figure 1. -hp- Model 11050A Thermal Converter

1. GENERAL.

2. The -hp- 11049A, 11050A, and 11051A Thermal Converters accurately convert ac input signals to dc voltages proportional to the rms value of the input. They have essentially a flat response from 5 Hz to 10 MHz, and good frequency response from 10 MHz to 100 MHz. Table 1 shows the frequency response specifications of the thermal converters.

3. SPECIFICATIONS.

MAXIMUM INPUT VOLTAGE:

- 11049A: 3 volts rms
- 11050A: 1 volt rms
- 11051A: 0.45 volt rms

INPUT IMPEDANCE: 50 Ω \pm 0.15 Ω to 10 MHz

OUTPUT IMPEDANCE: less than 10 Ω

OUTPUT VOLTAGE FOR FULL SCALE INPUT:

Nominal 7.5 mV

Table 1. Calibration Accuracy

Frequency Range	With Reference to Standard	Measurement Uncertainty
5 Hz to 20 Hz	within \pm 0.05%	\pm 0.12%
20 Hz to 20 kHz	within \pm 0.01%	\pm 0.02%
20 kHz to 50 kHz	within \pm 0.01%	\pm 0.03%
50 kHz to 1 MHz	within \pm 0.01%	\pm 0.06%
1 MHz to 10 MHz	within \pm 0.05%	\pm 0.12%
10 MHz to 30 MHz		\pm 0.25%
30 MHz to 60 MHz		\pm 0.50%
60 MHz to 100 MHz		\pm 1.50%

OPTION 01: Includes calibration to 60 MHz and correctional data sheet covering frequency range from 5 Hz to 60 MHz.

OPTION 02: Includes calibration to 100 MHz and correctional data sheet covering frequency range from 5 Hz to 100 MHz.