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Model 108 8-Channel Frequency-to-Voltage Converter

The Model 108 accepts frequency inputs from a wide variety of sources. Input amplitude can be 80 millivolts to 50 volts peak. The input frequency range is 0 to 5 KHz. The upper limit can be extended to 10 KHz on any channel by re-adjusting the gain trimpot for that channel. At factory settings, 1 Hertz in = 1 millivolt out. Worst case accuracy is 0.5% of full scale after calibration. Typical accuracy is 5 times better.

For any gain setting, the formula for obtaining frequency from voltage is:

$$\text{Frequency in Hertz} = \text{millivolts out} * (\text{full scale Hertz} / 5000)$$

The Model 108 requires a well regulated 8 VDC power supply. The current requirement is 50 milliamps.

CONNECTIONS:

+8	G	G	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	IN	OUT	G	
			7		6		5		4		3		2		1	0

The power supply and all inputs and outputs share the same ground. Three ground terminals are provided (labeled G). They are all electrically connected on the Model 108. The 8 trimpots are gain adjustments for channels 7 through 0 (left to right).

NOTE: Some Model 108s are equipped with a DC Regulator option. In that case, a 10 to 15 VDC supply (regulated or unregulated) should be connected to the +8 terminal.