Model 8112 Instruction Manual

Model 8112 clamp adaptor is designed to be an AC current/voltage conversion probe capable of measuring AC current from 0.1mA to 80A in conjunction with high sensitivity AC voltmeters. It is especially useful for digital multimeters. Simple to operate, the unit has range switch position at 200mA, 2A and 20A. It also features safety design throughout with no exposed metal parts.

Specifications:

Range Switch Position	Input	Output	Accuracy	Frequency Range
200mA/200mV (1mA/mV)	0-0.5A AC	0-500mV AC	±1.5% of output +0.2mV	50Hz-1kHz
	0-1A AC	0-1000mV AC	±3% of output +0.4mV	40Hz-10kHz
2A/200mV (10mA/mV)	0-20A AC	0-2000mV AC	±1% of output +0.1mV	40Hz-1kHz
			±1.5% of output +0.2mV	1kHz-10kHz
20A/200mV (100mA/mV)	0-20A AC	0-200mV	±1% of output +0.1mV	40Hz-1kHz
			±1.5% of output +0.2mV	1kHz-10kHz
	20-40A AC	200mV-400mV AC	±1.5% of output	50Hz-10kHz
	40-80A AC	400mV-800mV AC	±1.5% of output	100Hz-10kHz

Output Impedance - 2K ohms

Frequency Characteristics - Within ±3dB at 30Hz to 100kHz

Maximum Conductor Size - 8mm

Maximum Voltage of Circuit under test - 500V (DC + AC peak when transformer jaws closed)

Output Cord - Insulated, approx. 1.5m long, 3.9mm diameter and terminated with banana plug.

Operating Instructions:

After connecting Model 8112 to the voltmeter pull the jaw lever down to open the transformer jaws and clamp onto a current carrying conductor. The voltmeter reads the current measured. Change the range switch position on Model 8112 or the voltmeter according to the current being measured. Read the current as follows:

Model 8112 set at:	AC Voltmeter set at:	How to read:
200mA	200mV(e.g.)	Read directly (in milliamps)
2A	200mV(e.g.)	Divide reading by 100 (read in amps)
20A	200mV(e.g.)	Divide reading by 10 (read in amps)

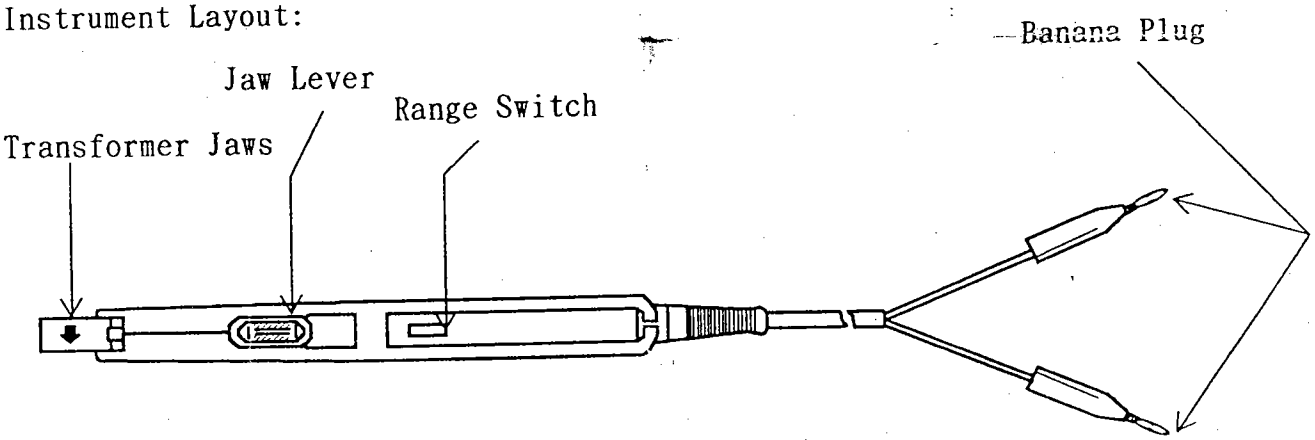
To give further examples of how to take readings:

(1)When 100mA is measured with range switch(Model 8112)set to 200mA the voltmeter reads 100.0mV at 200mV range or 0.100V at 2V range.

(2)When 1A is measured with range switch set to 2A the voltmeter reads 100.0mV at 200mV range or 0.100V at 2V range.

(3)When 10A is measured with range switch set to 20A the voltmeter reads 100.0mV at 200mV range or 0.100V at 2V range.

Instrument Layout:



Notes:

Although the maximum voltage of the circuit under test is specified as 500V(DC + AC peak) when the transformer jaws are closed, exercise caution not to bring the metallic section(jaw dovetail) of the jaws in contact with a bare conductor under test.

A reading error may develop when the jaws are not fully colsed.

A strong external magnetic field in proximity to the clamp adaptor will affect the current reading. Try to minimize this effect by changing the position or orientation of the clamp adaptor.

Arrow mark on the jaw indicates the polarity of output relative to the current flowing through the conductor. Output is positive (+) when the current flows into the arrowed direction.