

# Aplab

## DIGITAL AC MILLIVOLT METER ACMV22



**Aplab Digital AC Millivolt Meter Model ACMV22** is a wide range two channel (dual inputs) AC millivoltmeter with four digit LCD digital display and RS232 connectivity. It measures AC voltages from  $70 \mu\text{V}$  to 300V rms of sine wave signal frequencies between 5Hz to 2MHz. It has a manual / Auto range selection. It also measures voltages in dBV and dBm. It has floating Input and outputs.

It has a wide applications in measurements in R&D, College Labs, Navigation, Communications, Private Industries and Scientific Institutions.

### Features

- High Sensitivity of  $70\mu\text{V}$
- Wide Frequency Range, 5Hz - 2MHz
- 2 Input Channels
- Digital Read-out LCD Display
- Auto/Manual Range Selection
- dBV/dBm Measurements
- Under / Over Voltage Indication
- RS232 Connectivity
- Isolated Input / Output
- Protected Against Overloads

## Technical Specifications

### MEASUREMENT RANGES

- AC Voltage** : 70 $\mu$ V to 300V.  
**dBV** : -80dBV to 50dBV (0dBV=1V).  
**dBm** : -77dBm to 52dBm (0dBm=1mW 600 $\Omega$ ).  
**VOLTAGE MEASUREMENT RANGES** : 3mV, 30mV, 300mV, 3V, 30V, 300V. (Auto/Manual Mode Selection).  
**FREQUENCY RANGE** : 5Hz to 2MHz (AC coupled).  
**ACCURACY** : At 25  $\pm$  5°C.

Frequency Range	Measuring Error for Voltage
50Hz to 100kHz	$\pm$ 1.5% reading $\pm$ 8 digits
20Hz to 500kHz	$\pm$ 2.5% reading $\pm$ 10 digits
5Hz to 2MHz	$\pm$ 5.0% reading $\pm$ 20 digits

### RESOLUTION

- In dBV Mode :  $\pm$ 0.1dBV.  
 In dBm Mode :  $\pm$ 0.1dB.  
 In voltage Mode : 0.001mV to 0.1V.

Measurement Range	Full Value	Voltage Resolution
3mV	3.000mV	0.001mV
30mV	30.00mV	0.01mV
300mV	300.0mV	0.1mV
3V	3.000V	0.001V
30V	30.00V	0.01V
300V	300.0V	0.1V

- NOISE** : Zero, when input shorted.  
**INPUT IMPEDANCE** : 10M $\Omega$ .  
**INPUT CAPACITANCE** : 30pF.

### MAXIMUM INPUT VOLTAGE

Measurement Range	Frequency	Maximum Input Voltage
3V to 300V	5Hz to 2MHz	450Vrms
	5Hz to 1kHz	450Vrms
3mV to 300mV	1kHz to 10kHz	45Vrms
	10kHz to 2MHz	10Vrms

### INPUT CHANNELS ISOLATION

Frequency	$\leq$ 100kHz	$\leq$ 500kHz	$\leq$ 1MHz	$\leq$ 2MHz
Isolation	-90dB	-75dB	-70dB	-65dB

- WARM-UP** : 30 minutes.  
**INTERFACE** : RS232 interface for Remote Operation.

### POWER SUPPLY

- Voltage : 220V  $\pm$ 10%.  
 Frequency : 50Hz  $\pm$ 5%.  
 Consumption : 10VA.

### ENVIRONMENTAL OPERATION

- Temperature : 0 to +40°C (operating).  
 Relative Humidity : 20 to 90% RH at 40°C.  
 High Altitude : 86kPa to 106kPa

- DIMENSION** : 254 (W) x 103 (H) x 374 (D) mm.

- WEIGHT** : 3 Kg.

- STANDARD ACCESSORIES** : Input Test leads - 2 Nos.  
 Instruction Manual - 1 No.  
 RS 232 Interface Cable  
 Mains Power Cord.

WE PURSUE A POLICY OF CONTINUOUS DEVELOPMENT AND PRODUCT IMPROVEMENT. THUS THE SPECIFICATIONS IN THIS DOCUMENT AND THE LOCATION OF CONTROLS ON THE FRONT PANEL MAY BE CHANGED WITHOUT NOTICE.

**Aplab** Test & Measurement Instruments

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