

# Single and Dual Channel AC Millivoltsmeters

- *Wide Frequency Range*
- *Calibrated in Millivolts, Volts, dBV and dBm into 600  $\Omega$*
- *$\pm 2\%$  of Full Scale Accuracy*
- *100  $\mu$ V Sensitivity*
- *Amplifier Output Terminals*

The LMV series of average responding rms reading ac millivoltsmeters are applicable to a wide range of general purpose single or dual channel measurements. Both models feature a high sensitivity of 100  $\mu$ V and range to 300 V rms maximum full scale with a wide bandwidth of 5 Hz to 1 MHz for the LMV-181A or to 500 kHz for the LMV-186A. Meter scales are conveniently calibrated in millivolts and dB (0 dBV = 1 V and 0 dBm = 0.775 V) with accuracies to within  $\pm 2\%$  f.s.

The LMV-186A has concentric dual channel meter movements with separate needles on the analog display and a channel reverse switch. For stereo audio, the LMV-186A is very apt for measuring record and playback levels, channel separation, balance and tracking tests of volume, loudness and tone controls versus frequency, etc.



LMV-181A



LMV-186A

The flat bandwidth of the amplifier output terminals on both models often permit them to be used as sensitive, accurate instrument preamplifiers. Other areas of use include test and repair for communications, IF and ultrasonic circuits and systems.

## KEY SPECIFICATIONS

### METER

Sensitivity

100  $\mu$ V

Voltage Range (Full Scale)

1 mV to 300 V in 12 ranges

-60 to +50 dBV, -60 to +52 dBm

(0 dBV = 1 V, 0 dBm = 0.775 V)

Accuracy

$\pm 2\%$  full scale at 1 kHz or 400 Hz

Frequency Response (1 kHz ref)

LMV-181A

20 Hz - 200 kHz  $\pm 2\%$

10 Hz - 500 kHz  $\pm 5\%$

5 Hz - 1 MHz  $\pm 10\%$

LMV-186A

20 Hz - 100 kHz  $\pm 3\%$

10 Hz - 200 kHz  $\pm 5\%$

5 Hz - 500 kHz  $\pm 10\%$

Input Impedance

LMV-181A

10 M $\Omega$ , 50 pF

LMV-186A

10 M $\Omega$   $\leq 45$  pF (1 mV to 300 mV)

$\leq 25$  pF (1 V to 300 V)

Maximum Input

600 V (dc + ac peak)

Noise

Less than 2% full scale

### AMPLIFIER

Output

1 V rms (no load) corresponds to a full scale indication on each range

Frequency Response (1 kHz ref)

10 Hz to 200 kHz (-3 dB)

Output Impedance

600  $\Omega \pm 20\%$

Distortion (1 kHz)

$\leq 1\%$  full scale

### ENVIRONMENTAL

Operating Temperature

0 to 40°C

Humidity

85%

### POWER REQUIREMENTS

100, 120, 220, 240 V ac  $\pm 10\%$

### PHYSICAL

Size (W x H x D)

LMV-181A

5 $\frac{1}{4}$  x 5 $\frac{7}{8}$  x 9 $\frac{7}{8}$  in.

132 x 150 x 250 mm

LMV-186A

5 $\frac{7}{8}$  x 7 $\frac{7}{8}$  x 9 $\frac{7}{8}$  in.

150 x 200 x 250 mm

Weight

LMV-181A

4.4 lbs., 2 kg

LMV-186A

7.7 lbs., 3.5 kg

### SUPPLIED ACCESSORIES

LMV-181A

Test Cable (Banana Plug to Alligator Clip)

UHF to Banana Jack Adapter

LMV-186A

2 Test Cables (Banana Plug to Alligator Clip)

Spare Fuse