



**R-3501P**



**R-4050BP**



**R-4500P**

Portable Digital Ammeters, Voltmeters and Frequency meters are designed for AC, DC and True RMS measurements. These instruments are more rugged, reliable and accurate than analog meters. They are light in weight, compact in size and stylish in design. They do not have any moving parts. Display is bright Red LED's. There is no confusion of anti parallax scale.

A Single instrument covers a wide range, (as compared to analog meters) reducing the number of instruments required, thus saving cost and space. These instruments are much lighter in weight and easy to carry. These instruments are ideal for educational institutes, laboratories, research institutes etc.

### SALIENT FEATURES

- 3 ½ Digit Bright Red LED Display.1999(max) for Volt & Ampere.
- 4 ½ Digit Bright Red LED Display.19999(max) for Volt & Ampere.
- 4 Digit Bright Red LED Display. 9999(max) for Frequency meters.
- Light, Compact Sleek Design.
- Accurate Readings.
- High resolution as compared to analog instruments.
- No moving parts thus eliminating friction, wear and tear and enhancing life of instruments.
- Distinct reading eliminating ambiguity in readings.
- Auxiliary supply 230V AC.(Availability of other ranges is subject to technical feasibility)

### VOLTMETER & AMMETERS

<b>Model</b>	<b>R-3501P, R-4500P</b>
Measuring Method	Dual Slope A/D Conversion
Sampling Time	2.5 Samples Per Second
Display Type	14.2mm (0.56") Red LED Super Bright Display
Maximum Display	1999 Counts (3½ dgt.) 19999 Counts (4½ dgt.)
Resolution	0.001 to 1 Count Depending on range
Polarity Indication	"-" is indicated for Negative Input. No indication for Positive Input.
Power Source	230VAC ± 10% (50-60Hz)
Over Range Indication	"1" is displayed in MSD for 3½ dgt. "0000" flashes in MSD for 4½ dgt.
Power consumption	<5VA
Dielectric Strength	AC 2KV for 1 min. between input and power terminals
Maximum Overload	Voltage: 1.2 times continuous Current: 2 times continuous
Frequency Response	50-60Hz (Standard) for Ammeters, Voltmeters. <b>Upto 1KHz (Optional)</b>
Environment	Calibration: 27°± 5°C Operating: 0° ~ 50°C, RH ≤90 % non condensing. Storage: -10° ~ 60°C, RH ≤90 % non condensing.

### FREQUENCY METER

<b>Model</b>	<b>R-4050BP</b>
Measuring Method	Micro Controller based
Sampling Time	About 0.1 seconds.
Display Type	14.2mm (0.56") Red LED Super Bright Display
Maximum Display	9999 Counts (4 dgt.)
Resolution	0.01 to 1 Count Depending on range
Power Source	230VAC ± 10% (50-60Hz)
Over Range Indication	"-1" or "1" is displayed.
Power consumption	<5VA
Dielectric Strength	AC 2KV for 1 min. between input and power terminals
Environment	Calibration: 27°± 5°C Operating: 0° ~ 50°C, RH ≤90 % non condensing. Storage: -10° ~ 60°C, RH ≤90 % non condensing.

MODEL: R-3501P VOLTMETERS AND AMMETERS (3½ DIGIT DISPLAY)

MODEL: R-4500P VOLTMETERS AND AMMETERS (4½ DIGIT DISPLAY)

DIRECT INPUT DC / AC / TRMS (SINGLE RANGES)

3½ Digits			4½ Digits		
RANGES	INPUT IMPEDANCE	RESOLUTION	RANGES	INPUT IMPEDANCE	RESOLUTION
199.9 µA	1 KΩ	0.1 µA	199.99 µA	1 KΩ	0.01 µA
1.999 mA	100Ω	0.001 mA	1.9999 mA	100Ω	0.0001 mA
19.99 mA	10Ω	0.01 mA	19.999 mA	10Ω	0.001 mA
199.9 mA	1Ω	0.1 mA	199.99 mA	1Ω	0.01 mA
1.999 A	0.1Ω	0.001 A	1.9999 A	0.1Ω	0.0001 A
5/19.99 A	0.01Ω	0.01 A	5/19.999 A	0.01Ω	0.001 A
199.9 mV	≥ 1MΩ	0.1 mV	199.99 mV	≥ 1MΩ	0.01 mV
1.999 V	≥ 1MΩ	0.001 V	1.9999 V	≥ 1MΩ	0.0001 V
19.99 V	≥ 1MΩ	0.01 V	19.999 V	≥ 1MΩ	0.001 V
199.9 V	≥ 1MΩ	0.1 V	199.99 V	≥ 1MΩ	0.01 V
600 V	≥ 1MΩ	1 V	600 V	≥ 1MΩ	0.1 V

DIRECT INPUT DC / AC / TRMS (DUAL RANGES)

	RANGES
VOLTAGE	0-200mV / 2V, 0-2V / 20V, 0-20V / 200V, 0-200V / 600V
AMPERE	0-200µA / 2mA, 0-2mA / 20mA, 0-20mA / 200mA, 0-200mA / 2A, 0-2A / 20A

ACCURACIES FOR MODEL R-3501P & R-4500P

INPUT RANGE	SINGLE RANGE	DUAL RANGE
DC VOLTS	± (0.1%rdg+2 dgts)	± (0.5% rdg+2 dgts)
DC AMPS	± (0.3%rdg+2 dgts)	± (0.5% rdg+2 dgts)
AC VOLTS	± (0.5% rdg+3 dgts)	± (0.8% rdg+3 dgts)
AC AMPS	± (0.5%rdg+3 dgts)	± (0.8% rdg+3 dgts)

Other ranges available on request. (Subject to Technical Feasibility)

MODEL: R-4050BP FREQUENCY METER (4 DIGIT DISPLAY)

INPUT	RANGE	RESOLUTION	INPUT IMPEDANCE	ACCURACY
10-500VAC	99.99Hz	0.01Hz	≥ 1MΩ	0.1Hz
	999.9Hz	0.1Hz	≥ 1MΩ	1.0Hz

Other ranges available on request. (Subject to Technical Feasibility)

