

# ALL NEW

# APPA 90 Series II Multimeter



# APPA<sup>®</sup>

Advanced Instrument Technology Made Easy



## DAY & NIGHT

APPA 99II Digital Multimeter has a LED backlit display that turns ON/OFF at the touch of a button, also automatically goes off to save battery life.

## NO-OPTION FULL ACCESSORIES

Ergonomically designed test leads with comfort-grip, safety-shrouded, full sleeve right angle plug and hard alloy tips for long life. Slip-on insulated alligator clips are standard. Also supplied with temperature adaptor and bead sensor. (Mode 99II)



## WHOLE NEW SHAPE

A whole new designed V shape represent a new millennium of instrumentation.



## EXTRA PROTECTION

Every 90II series meter is supplied with a protective holster that includes a built-in tilt stand, a nail hook, and convenient test lead storage. This holster provides an extra degree of protection and convenience for your meter



## BATTERY EASY TO REPLACE

Unscrew only one screw to remove battery door for battery replacement, designed for user's convenience without opening the bottom case.





### APPA 97II

- 3400 count digital display
- 70 segment analog bar graph
- Large scale display
- Autoranging and manual selection
- 0.25% DCV accuracy
- Hz reading on AC mode
- Frequency Counter
- Data Hold
- Stream Line Design, Protective Holster
- CAT. III 600V/CAT.II 1000V Safety Standard



### APPA 98II

- 4000 count digital display
- 82 segment analog bar graph
- Large scale display
- Autoranging and manual selection
- 0.25% DCV accuracy
- True RMS Indication
- Hz reading on AC mode
- Frequency Counter
- Capacitance Measurement
- Data Hold
- Stream Line Design, Protective Holster
- CAT. III 600V/CAT.II 1000V Safety Standard



### APPA 99II

- 4000 count digital display
- 82 segment analog bar graph
- Backlit, Large scale display
- Autoranging and manual selection
- 0.25% DCV accuracy
- True RMS Indication
- Peak Hold
- Data Hold
- Relative feature
- Min/Max function
- Frequency Counter
- Capacitance Measurement
- °C/ °F Temperature test
- Stream Line Design, Protective Holster
- CAT. III 600V/CAT.II 1000V Safety Standard

# APPA 90II SERIES MULTIMETER

SPECIFICATIONS: (All at 23°C ±5°C < 80% R.H.)

	APPA 97II	APPA 98II	APPA 99II
<b>DCV:</b>	<b>Ranges</b> 300mV ~ 1000V <b>Resolution</b> 100µV <b>Accuracy</b> ±(0.25%+1d)	<b>Ranges</b> 400mV ~ 1000V <b>Resolution</b> 100µV <b>Accuracy</b> ±(0.25%+1d), 40V~1000V	<b>Ranges</b> 400mV ~ 1000V <b>Resolution</b> 100µV <b>Accuracy</b> ±(0.25%+1d), 40V~1000V
<b>ACV:</b>	<b>Ranges</b> 3V ~ 750V <b>Resolution</b> 1mV <b>Accuracy</b> ±(1.3%+5d), 3V( 40Hz ~ 500Hz) <b>Bandwidth</b> 40Hz ~ 1KHz	<b>Ranges</b> 400mV ~ 750V <b>Resolution</b> 0.1mV <b>Accuracy</b> ±(1.3%+5d), 40V~750V <b>Bandwidth</b> 40Hz ~ 1KHz	<b>Ranges</b> 400mV ~ 750V <b>Resolution</b> 0.1mV <b>Accuracy</b> ±(1.3%+5d), 40V~750V <b>Bandwidth</b> 40Hz ~ 1KHz
<b>DCA:</b>	<b>Ranges</b> 30mA ~ 10A <b>Resolution</b> 10µA <b>Accuracy</b> ±(1.5%+2d), 30mA ~ 300mA	<b>Ranges</b> 40mA ~ 10A <b>Resolution</b> 10µA <b>Accuracy</b> ±(0.6%+2d), 40mA	<b>Ranges</b> 40mA ~ 10A <b>Resolution</b> 10µA <b>Accuracy</b> ±(0.6%+2d), 40mA
<b>ACA:</b>	<b>Ranges</b> 30mA ~ 10A <b>Resolution</b> 10µA <b>Accuracy</b> ±(2.0%+5d), 30mA ~ 300mA <b>Bandwidth</b> 40Hz ~ 1KHz	<b>Ranges</b> 40mA ~ 10A <b>Resolution</b> 10µA <b>Accuracy</b> ±(2.0%+5d), 40mA ~ 400mA <b>Bandwidth</b> 40Hz to 1KHz	<b>Ranges</b> 40mA ~ 10A <b>Resolution</b> 10µA <b>Accuracy</b> ±(2.0%+5d), 40mA ~ 400mA <b>Bandwidth</b> 40Hz to 1KHz
<b>Ω</b>	<b>Ranges</b> 300Ω ~ 30MΩ <b>Resolution</b> 0.1Ω <b>Accuracy</b> ±(0.7%+3d), 3KΩ ~ 300KΩ	<b>Ranges</b> 400Ω ~ 40MΩ <b>Resolution</b> 0.1Ω <b>Accuracy</b> ±(0.4%+3d), 4KΩ~400KΩ	<b>Ranges</b> 400Ω ~ 40MΩ <b>Resolution</b> 0.1Ω <b>Accuracy</b> ±(0.4%+3d), 4KΩ~400KΩ
<b>Diode Test:</b>	<b>Max Test Current</b> 1.5mA <b>Open Circuit Voltage</b> 3V <b>Input Protection</b> 600Vrms	<b>Max Test Current</b> 1.5mA <b>Open Circuit Voltage</b> 3V <b>Input Protection</b> 600Vrms	<b>Max Test Current</b> 1.5mA <b>Open Circuit Voltage</b> 3V <b>Input Protection</b> 600Vrms
<b>Continuity Test:</b>	<b>Continuity Threshold</b> Approx. 30Ω <b>Continuity Indicator</b> 2KHz Tone Buzzer <b>Input Protection</b> 600Vrms	<b>Continuity Threshold</b> Approx. 30Ω <b>Continuity Indicator</b> 2KHz Tone Buzzer <b>Input Protection</b> 600Vrms	<b>Continuity Threshold</b> Approx. 30Ω <b>Continuity Indicator</b> 2KHz Tone Buzzer <b>Input Protection</b> 600Vrms
<b>Hz:</b>	<b>Ranges</b> 3.0KHz ~ 30MHz <b>Resolution</b> 1Hz <b>Accuracy</b> ±(0.01%+1d)	<b>Ranges</b> 4KHz ~ 40MHz <b>Resolution</b> 1Hz <b>Accuracy</b> ±(0.01%+1d)	<b>Ranges</b> 4KHz ~ 40MHz <b>Resolution</b> 1Hz <b>Accuracy</b> ±(0.01%+1d)
<b>RPM:</b>	<b>Ranges</b> 30KRPM ~ 300MRPM <b>Resolution</b> 30RPM <b>Accuracy</b> ±(0.01%+10d)	<b>Ranges</b> 40KRPM ~ 400MRPM <b>Resolution</b> 10RPM <b>Accuracy</b> ±(0.01%+10d)	<b>Ranges</b> 40KRPM ~ 400MRPM <b>Resolution</b> 10RPM <b>Accuracy</b> ±(0.01%+10d)
<b>Capacitance:</b>	<b>Ranges</b> NA <b>Resolution</b> NA <b>Accuracy</b> NA	<b>Ranges</b> 4nF ~ 40mF <b>Resolution</b> 1pF <b>Accuracy</b> ±(2%+5d), 40nF~400µF	<b>Ranges</b> 4nF ~ 40mF <b>Resolution</b> 1pF <b>Accuracy</b> ±(2%+5d), 40nF~400µF
<b>VAHz:</b>	<b>Ranges</b> AC: 3V ~ 750V, 30mA ~ 10A <b>Resolution</b> 1Hz <b>Accuracy</b> ±(0.01%+1d)	<b>Ranges</b> AC: 400mV ~ 750V, 40mA ~ 10A <b>Resolution</b> 1Hz <b>Accuracy</b> ±(0.01%+5d)	<b>Ranges</b> NA <b>Resolution</b> NA <b>Accuracy</b> NA
<b>°C/°F:</b>	<b>Ranges</b> NA <b>Resolution</b> NA <b>Accuracy</b> NA	<b>Ranges</b> NA <b>Resolution</b> NA <b>Accuracy</b> NA	<b>Ranges</b> - 20°C ~ 800°C <b>Resolution</b> 1°C <b>Accuracy</b> ±(2%+4°C), -20°C ~ 350°C ±(2%+2°C), 351°C ~ 500°C ±(3%+2°C), 501°C ~ 800°C

## GENERAL SPECIFICATIONS:

<b>Display</b>	3400 count	4000 count	4000 count
<b>Analog Bargraph Display</b>	70 segments	82 segments	82 segments
<b>Overrang Indication</b>	"OL" or "-OL"	"OL" or "-OL"	"OL" or "-OL"
<b>Sampling Rate</b>	2 times/sec	2 times/sec	2 times/sec
<b>Auto Power Off</b>	Approx. 30 minutes	Approx. 30 minutes	Approx. 30 minutes
<b>Storage Temperature:</b> -20°C to 60°C, 0 to 80% R.H.	•	•	•
<b>Temperature Coefficient:</b> 0.15 x ( Spec. Acc'y)/°C, < 18°C, > 28°C.	•	•	•
<b>Safety Standard</b> IEC 61010 & designed to meet UL 3111, CAT. III 600V/CAT. II 1000V	•	•	•
<b>Power Requirement:</b> Standard 9V battery NEDA 1604, IEC6F22, JIS006P. IEC LR03, AM4 or AAA size 1.5V x 2.	•	•	•
<b>Battery Life</b>	Alkaline 500 hours	Alkaline 300 hours.	Alkaline 300 hours.
<b>Dimensions ( W x L x H )</b>	88mm x 180mm x 33.5mm 94mm x 188mm x 40mm, with holster	88mm x 180mm x 33.5mm 94mm x 188mm x 40mm, with holster	88mm x 180mm x 33.5mm 94mm x 188mm x 40mm, with holster
<b>Weight:</b> In grams (with holster)	460	460	460
<b>Accessories</b>	Protective holster, ZnC battery (installed), test leads, test clips and manual.	Protective holster, ZnC battery (installed), test leads, test clips and manual.	Protective holster, ZnC battery (installed), test leads, test clips, Temp. adaptor, Bead sensor and manual.

Specifications subject to change without notice.

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