

APPA 60 & 90 SERIES MULTIMETER

FEATURES:	APPA 63N	APPA 67	APPA 91	APPA 93N	APPA 97/97R
Digital display	3200 count	3200 count	2000 count	2000 count	3200 count
Analog bar graph	65 segments	65 segments			65 segments
Range selection	Auto/Manual	Auto/Manual	Manual	Manual	Auto/Manual
Frequency counter					
Capacitance measurement					
Audible continuity and Diode test	.	.	.	.	.
Data hold	.	.	.	.	.
Delay hold					
True RMS measuring					APPA 97R
Beep guard					
Automatic power shut off	.	.	.	.	.
Shock proof from 4 feet drops	.	.	5 feet	5 feet	5 feet
Standard full-sleeve safety test leads	.	.	.	.	.
Protective holster	.	.	.	.	.
Water resistant and dust proof case	.	.	.	.	.

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

DCV:	Ranges	300.0mV~600V	300.0mV~600V	200.0mV~1000V	200.0mV~600V	300.0mV~1000V
Resolution		0.1mV	0.1mV	0.1mV	0.1mV	0.1mV
Accuracy		±(0.5%+2d)	±(0.7%+2d)	±(0.5%+1d)	±(0.5%+1d)	±(0.5%+2d)/ 97R ±(0.3%+2d)
Input Impedance:10MΩ	
Overload Protection: 600V DC or AC rms		.	.	1200V DC or 850V AC	.	1000V rms
ACV:	Ranges	3.000V~600V	3.000V~600V	200.0mV~750V	200.0mV~600V	3.000V~750V
Resolution		1mV	1mV	0.1mV	0.1mV	1mV
Accuracy: ±(1.5%+5d) at 40Hz~500Hz		.	±(1.7%+5d)	±(1.25%+4d)	±(1.3%+4d)	±(1.3%+5d)/ 97R ±(1.3%+3d)
at 40Hz~500Hz	
Input Impedance:10MΩ/≤100pF	
Overload Protection: 600V DC or AC rms		.	.	1200V DC or 850V AC	.	.
1000V DC or AC peak	
Conversion Type: Average sensing RMS indicating	
DCA:	Ranges: (20A for 30 seconds)	300.0μA	300.0μA~20.00A	200.0μA~20.00A	200.0μA~20.00A	300.0μA~20.00A
Resolution		0.1μA	0.1μA	0.1μA	0.1μA	0.1μA
Accuracy: ±(1.2%+2d) basic, ±(2.5%+5d) at >300mA		±(1.0%+2d)	.	.	.	.
±(0.9%+2d) basic, ±(2.5%+5d) at >300mA	
±(2%+3d) at >2A		.	.	±(1%+1d) basic	±(1%+1d) basic	±(1%+2d) basic
Input Protection: 1A, 240V fuse for μA/mA input	
13A, 240V fuse for A/10A input	
600V rms	
1A/500V and 16A/500V fast blow fuses	
ACA:	Ranges: (20A for 30 seconds)	300.0μA~20.00A	200.0μA~20.00A	200.0μA~20.00A	200.0μA~20.00A	300.0μA~20.00A
Resolution		0.1μA	0.1μA	0.1μA	0.1μA	0.1μA
Accuracy: ±(1.7%+4d) basic, ±(2.9%+7d) >300mA	
±(1.5%+4d) basic, ±(2.9%+5d) >300mA	
±(1.5%+3d) basic		.	.	±(2.5%+3d) at >2A	±(2.5%+3d) at >2A	±(2.5%+5d) at >2A
all at 40Hz ~ 500Hz	
Input Protection: Same as DCA	
OHM:	Ranges	300.0Ω~30.00MΩ	300.0Ω~30.00MΩ	200.0Ω~20.00MΩ	200.0Ω~20.00MΩ	300.0Ω~30.00MΩ
Resolution		0.1Ω	0.1Ω	0.1Ω	0.1Ω	0.1Ω
Accuracy: 300Ω / 200Ω		±(1.0%+4d)	±(1.2%+4d)	±(0.75%+4d)	±(0.8%+4d)	±(1.0%+4d)/ 97R ±(0.7%+4d)
3KΩ/ 2KΩ		±(0.8%+2d)	±(0.9%+2d)	±(0.75%+1d)	±(0.8%+1d)	±(0.8%+2d)/ 97R ±(0.5%+2d)
30KΩ/ 20KΩ		±(0.8%+2d)	±(0.9%+2d)	±(0.75%+1d)	±(0.8%+1d)	±(0.8%+2d)/ 97R ±(0.5%+2d)
300KΩ/ 200KΩ		±(0.8%+2d)	±(0.9%+2d)	±(0.75%+1d)	±(0.8%+1d)	±(0.8%+2d)/ 97R ±(0.5%+2d)
3MΩ/ 2MΩ		±(0.8%+2d)	±(1.2%+3d)	±(0.75%+1d)	±(0.8%+1d)	±(1.2%+3d)/ 97R ±(1.0%+3d)
30MΩ/ 20MΩ		±(2.0%+5d)	±(2.5%+5d)	±(1.5%+5d)	±(1.5%+5d)	±(2.5%+5d)/ 97R ±(2.0%+5d)
Overload Protection		600V rms	600V rms	500V rms	600V rms	600V rms
Continuity Beeper: <50Ω, 2KHz tone buzzer	
Diode Test: Open circuit voltage: 3.3V max	
Frequency Counter: Ranges				2KHz~200KHz		
Resolution				1Hz		
Accuracy: ±(1%+3d) at 5V rms max				.		
Overload Protection				600Vrms		
Capacitance: Ranges				2.000nF~200.0μF		
Resolution				1pF		
Accuracy: ±(1.9%+5d) basic				2%+4d		

GENERAL:	APPA 63N	APPA 67	APPA 91	APPA 93N	APPA 97/97R
Sampling Rate: 2times/sec for digital display, 12times/sec for analog bar graph	2times/sec	2times/sec	2.5times/sec	2.5times/sec	.
Overload Indication	"1" or "-1"	"1" or "-1"	"1" or "-1"	"1" or "-1"	"OL" or "-OL"
Low Battery Indication	⊖	⊖	⊖	⊖	⊖
Auto Power Off: Approx. 30 minutes	.	.	.	.	.
Operating Temperature: 0°C~50°C, ≤80% RH	.	.	.	.	.
Storage Temperature: -20°C ~ 60°C	.	.	.	.	.
Temperature Coefficient: 0.15(Spec. Acc)/°C, <18°C or>28°C	.	.	.	.	.
Safety: IEC 61010 and designed to meet UL3111 specifications	CAT. III 600V	CAT. II 600V	CAT. III 600V	CAT. II 600V	CAT. III 600V
Power Requirement: Single 9V battery (NEDA 1604 or IEC 6F22)	.	.	.	.	.
IEC LR03, AM4 or AAA size 1.5V x 2	.	.	.	.	.
Battery Life: In hours (Alkaline battery)	1000	900	300	150	700/ 97R 350
Size: 80mm(W) x 165mm (L) x 36 mm(H), with holster	.	.	.	.	.
85mm(W) x 165mm (L) x 40 mm (H), with holster	.	.	.	.	.
84mm(W) x 175mm (L) x 31 mm(H), without holster	.	.	.	.	.
95mm(W) x 192mm (L) x 50 mm (H), with holster	.	.	.	.	.
Weight: In grams (with holster)	310	360	550	550	550
Included with instrument: Test Leads, Protective holster	.	.	.	.	.
Zn/C battery (installed) and manual

Specifications subject to change without notice.

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 ISO 9001 CERTIFIED

APPA 60 & 90 Series Multimeter

- Analog Bar Graph • True RMS • Auto Power Off • Beep Guard™
- Frequency Counter • Capacitance Ranges • Continuity/Diode Test
- Water Resistant • Drop Proof • Protective Holster



APPA[®]
 Advanced Instrument Technology Made Easy

Pocket-Size Multimeter

One Hand Operation



Built-in Tilt Stand



Hanging Convenience



Test Lead Storage



APPA 63N

- 3200 count digital display
- 65 segments analog bar graph
- Autoranging and manual selection
- 0.5% basic dc volts accuracy
- 1.5% basic ac volts accuracy
- 1.8% basic ohms accuracy
- 1.0% basic dc amps accuracy
- 600V protection in every range
- Fast continuity beeper
- Diode test
- Display hold function
- MagiHolster™



APPA 67

- 3200 count digital display
- 65 segments analog bar graph
- Autoranging and manual selection
- 0.7% basic dc volts accuracy
- 1.7% basic ac volts accuracy
- 1.2% basic dc amperes accuracy**
- 1.7% basic ac amperes accuracy**
- 0.9% basic ohms accuracy
- 600V protection non-current ranges
- Beep Guard™ warning system
- Fast continuity beeper (0.2 msec)
- Diode test
- Display hold function
- Auto power off
- MagiHolster™

APPA 67 is designed to safely meet measuring requirements of the field service industry. They are not recommended for use in high energy current measurements.

Rugged Industrial Multimeter



Water Resistant

Models 91, 97 & 97R are designed for harsh environments with water tight gasket at the seams, rotary switch and input terminals to keep out dust, dirt and moisture.

Rating IP 64



Shockproof

Shock mounting and thick-wall design guarantee that these multimeters will keep on working even after a five foot fall to a concrete floor.



Beep Guard

Specially designed Beep Guard provides a constant beep warning if the test leads put in the current jacks and select an incorrect function.

Model 91, 97 & 97R

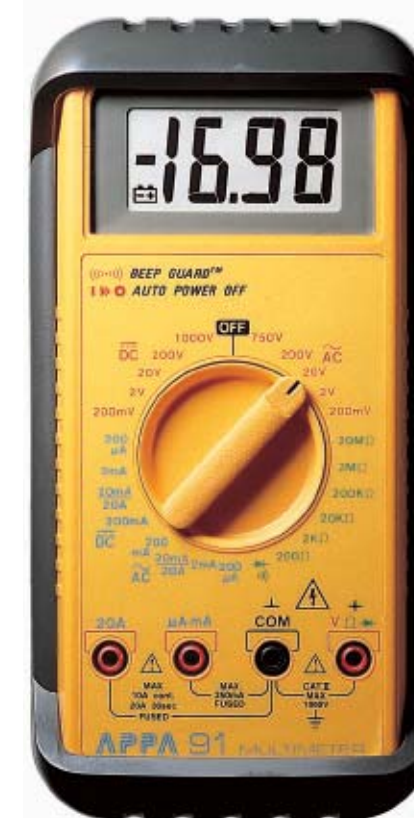


Multipurpose Holster

Every APPA 90 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.

Safety

All models are designed to meet Class II IEC 1010 and UL 3111 standards for the safest operation in all applications.



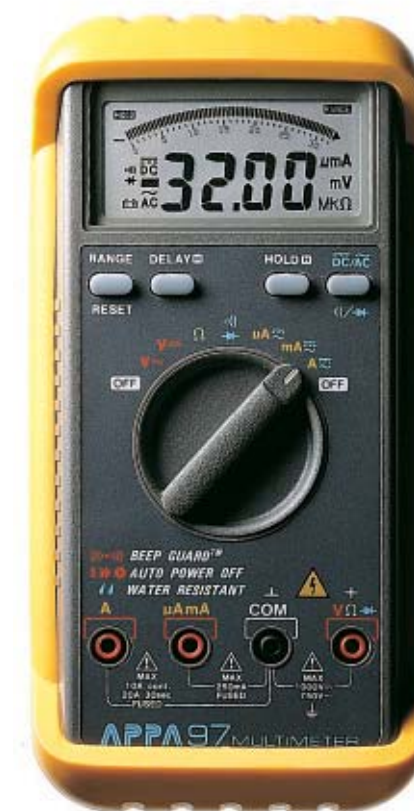
APPA 91

- 3 1/2 digit 0.8" large scale LCD
- 0.5 % basic DCV accuracy
- 1.3 % basic ACV accuracy
- 1.0 % basic DCA accuracy
- 1.5 % basic ACA accuracy
- 0.75% basic OHM accuracy
- CONTINUITY and DIODE Test
- 500V dual fuses protection
- Auto Power Shut Off
- Beep Guard™ warning system
- Water Resistant rating IP 64**
- 5 feet drop proof
- Protective Holster with tilt stand
- IEC 1010-1 standard CAT II 1000V



APPA 93N

- 3 1/2 digit 0.8" large scale LCD
- 0.5 % basic DCV accuracy
- 1.3 % basic ACV accuracy
- 1.0 % basic DCA accuracy
- 1.5 % basic ACA accuracy
- 0.75% basic OHM accuracy
- 1.0 % FREQUENCY accuracy
- 2.0 % CAPACITANCE accuracy
- CONTINUITY and DIODE Test
- 600V protection in non-current ranges
- 500V dual fuses protection
- Auto Power Shut Off
- 5 feet drop proof
- Protective Holster with tilt stand
- IEC 1010-1 standard CAT. II 600V



APPA 97 APPA 97R (True RMS reading)

- 3200 count digital display
- 65 segment analog bar graph
- Autoranging and manual selection
- 0.3 % basic DCV accuracy (97R)**
- 0.5 % basic DCA accuracy (97)
- 1.3 % basic ACV accuracy
- 1.0 % basic DCA accuracy
- 1.5 % basic ACA accuracy
- 0.5 % basic OHM accuracy (97R)**
- 0.75% basic OHM accuracy (97)
- TRUE RMS reading in ACV/ACA (97R)**
- CONTINUITY and DIODE Test
- 500V dual fuses protection
- Auto Power Shut Off
- Beep Guard™ warning system
- Water Resistant rating IP 64**
- Fast continuity beeper (0.2 msec)
- Data HOLD key
- Unique DELAY HOLD function
- 5 feet drop proof
- Protective Holster with tilt stand
- IEC 1010-1 standard CAT. II 1000V