



PM53A Digital Multimeter

The compact commercial DMM with AutoTect™ and VolTect™

This meter is the essential shirt-pocket size meter. Only 3/8" thick and less than 3 oz in weight, this meter offers full functionality with AC and DC voltage to 450 V, resistance to 6 Megohm, capacitance to 100 µF, frequency to 30 kHz and continuity w/beeper. It also offers VolTect™ a built-in, non-contact voltage detector for ac voltages.

Another key feature is AutoTect™ which automatically selects AC voltage, DC voltage or resistance measurement based on the test

point to which the leads are connected. Fully autoranging, this meter offers seven different measurement functions plus features that are usually found in much more expensive and larger meters. The digital display is oversized with large digits and unit icons in the display. In spite of its size, this meter is fully safety rated to CAT III 300 V, CAT II 450 V and is UL approved. Includes a silicone protective holster, attached test leads, battery and manual.

No hassle warranty

No waiting.

No shipping charges.



Our commitment to high-quality products and customer service is demonstrated by our industry exclusive "No Hassle" warranty. In the unlikely event that an Amprobe Test Tool requires warranty service, any of our local dealers are authorized to replace it, on the spot.

(note: \$500 MSLP limit)

- AutoTect™ feature directs the meter to know if it is measuring AC volts, DC volts or resistance with no user interface required
- The AutoTect™ feature has lower input impedance which zeros out ghost voltages
- Measures capacitance, frequency, continuity with beeper plus includes VolTect™ a built-in, noncontact voltage detector
- Large oversize digital display
- Protective silicon holster included, attached test leads, battery and manual
- One-year, no-hassle warranty



PM53A Digital Multimeter

Data Sheet

General Specifications

Display and update rate	3-5/6 digits 6000 counts; Updates 5 per second nominal
Operating temperature	0 °C - 40 °C
Relative humidity	Max. 80 % R.H. up to 31 °C, decreasing linearly to 50 % R.H. at 40 °C
Altitude	Operating below 2000 m
Storage temperature	-20 °C ~ 60 °C, < 80 % R.H. (with battery removed)
Temperature coefficient	Nominal 0.15 x (specified accuracy)/ °C @ (0 °C ~ 18 °C or 28 °C ~ 40 °C), or otherwise specified
Sensing	Average sensing
Overload protection	450 V DC and V AC RMS
Low battery	Below approx. 2.4 V
Power supply	3 V standard button battery x 1 (IEC-CR2032; ANSI-NEDA-5004LC)
Power consumption (typical)	2 µA
Automatic Power Off (APO) timing	Idle for 3 minutes
APO consumption (typical)	2.2 µA
Dimension	L 113 mm x W 53 mm x H 10.2 mm (4.4 x 2.1 x 0.4 in)
Weight	Approx. 78 gm (3 oz)
Special features	AutoTect™ (Automatic V & Ω selection) and VolTect™ (Electric Field Detection)
Agency approvals	CE, cULus
Safety	Meets IEC61010-1, UL61010B-1, CAN/CSA-C22.2 No. 1010.1-92, CAT II 450 V and CAT III 300 V, Pollution Degree 2, Class 2
E.M.C.	Meets EN61326

Specifications

Function	Range	Accuracy
RF field @ 3 V/m		Specified accuracy + 45 d (capacitance not specified)
DC Voltage		
	6.000 V	± (0.5 %+3 dgt)
	60.00 V	± (1.0 %+5 dgt)
	450.0 V	± (1.2 %+5 dgt)
NMRR		> 30 dB @ 50 Hz/60 Hz
CMRR		> 100 dB @ DC, 50 Hz/60 Hz; Rs=1 kΩ
Input impedance		AutoTect™ Lo-Z V dc: 160 kΩ, 160 pF nominal
V DC AutoTect™ threshold		> +1.2 V DC or < -0.6 V DC nominal
AC Voltage		
50 Hz - 60 Hz	6.000 V, 60.00 V, 450.0 V	± (1.5 %+5 dgt)
CMRR		> 60 dB @ DC to 60 Hz, Rs=1 kΩ
Input impedance		AutoTect™ Lo-Z V AC: 160 kW, 160 pF nominal
ACV AutoTect™ threshold		> 1.5 V AC (50 Hz/60 Hz) nominal
Capacitance		
	100.0 nF, 1000 nF, 10.0 μF,	
	100.0 μF ^{1 3}	± (3.5 %+6 dgt) ⁴
¹ Accuracy below 50 nF is not specified		
² Accuracies with film capacitor or better		
³ Top range. Updates > 1 minute on large values		
⁴ Specified with battery voltage above 2.8 V (half full battery). Accuracy decreases gradually to 12% at low battery warning voltage of approx. 2.4 V.		
Resistance		
	6.000 kΩ ¹	± (1.2%+6 dgt) ²
	60.00 kΩ, 600.0 kΩ	± (1.0%+4 dgt)
	6.000 MΩ	± (2.0%+4 dgt)
Open circuit voltage		0.4 V DC typical
¹ AutoTect™ is for 6.000 kΩ ~ 6.000 MΩ ranges		
² Add 40 dgt to specified accuracy while reading is below 20% of range		
Frequency		
	100 Hz, 1 kHz, 10 kHz ¹	± (0.5 %+4 dgt) < 20 V Sine-RMS
¹ Sensitivity (Sine-rms): Hz in Auto-VW position:> 3 V		
VolTect™		
Typical voltage	Bar graph indication	
15 V to 55 V	-	
30 V to 85 V	--	
55 V to 145 V	---	
85 V to 190 V	----	
above 120 V	-----	
Indication	Bar graph segments & audible beep tones proportional to field strength	
Detection frequency	50/60 Hz	
Detection antenna	Top left corner of the meter	
Audible Continuity Tester		
Open circuit voltage	0.4 V DC typical	
Audible threshold	175 Ω	±125 Ω



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Included Accessories

H-PMA silicone holster, battery (installed)
and user's manual

Optional Accessories

VC3A Zippered carrying case

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