AMPROBE®

Data Sheet



PM55A
Digital Multimeter

The compact precision DMM with AutoTect™ and VolTect™

The ultimate shirt-pocket sized meter. Only 3/8" thick and less than 3 oz in weight with full functionality offering ac and dc voltage to 600 V, AC and DC current to 2000 µA, resistance to 6 Megohm, capacitance to 2000 µF, frequency to 30 kHz, diode test 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 between AC voltage, DC voltage or resistance measurement based on the test point to which the leads are connected. Fully autoranging, this meter offers nine 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 600 V and is UL approved.

No other meter this small offers such performance and high safety ratings. Includes a silicone protective holster, deluxe carrying case, 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**
- **The AutoTect™ feature has lower input impedance which zeros out ghost voltages**
- **Measures AC/DC current, capacitance, frequency, continuity with beeper plus includes Voltect,™ a built-in, non-contact voltage detector**
- **Large oversize digital display**
- **Protective silicon holster included, attached test leads, battery, deluxe carry case and manual**
- **One-year, no-hassle warranty**

CAT II 600V CAT III 300V C UL US N10140 CE

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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	600 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)	6 mA for voltage functions on Auto-V W position & 2 mA for other functions
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 600 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)
	600 V (AutoTect™ Lo-Z)	2.0 %
	600 V (Hi-Z only)	1.5 % + 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: 833 kΩ (4.2 kW when displaying AUTO), 90 pF nom.		
V DC AutoTect™ threshold >		+1.2 V DC or < -0.6 V DC nominal (Hi-Z V DC only)
AC Voltage (50 Hz - 60 Hz)		
	6.000 V, 60.00 V, 600 V	± (1.5 %+5 dgt)
CMRR > 60 dB @ DC to 60 Hz, Rs=1 kW		
Input impedance AutoTect™ Lo-Z V AC: 160 kΩ, 160 pF nominal		
Hi-Z ACV 5 MW, 90 pF nominal		
ACV AutoTect™ threshold > 1.5 V ac (50 Hz/60 Hz) nominal		

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Specifications

Function	Range	Accuracy
Capacitance		
	100.0 nF, 1000 nF, 10.0 µF,	
	100.0 µF, 2000 µF [1 3]	± (3.5 %+6 dgt) [2]
[1]Accuracy below 50 nF is not specified 4Specified with battery voltage above 2.8 V (half full battery).		
[2]Accuracies with film capacitor or better Accuracy decreases gradually to 12% at low battery warning		
[3]Updates > 1 minute on large values voltage of approx. 2.4 V.		
Resistance		
Range Accuracy		
	600.0 Ω	± (2.0%+6 dgt)[2]
	6.000 kΩ	± (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		
	10.00 Hz - 30.00 kHz[1, 2]	± (0.5 %+4 dgt) < 2 0 V Sine-rms
	10.00 Hz - 999.9 Hz	± (0.5 %+4 dgt) < 600 V Sine-rms
[1]Sensitivity (Sine-rms): Hz in Auto-V (position:> 3 V		
[2]Line-level Hz in V position: @6.000 V AC range: > 3 V; @60.00 V AC range: > 6 V; @600.0 V AC range: > 60 V		

DC µA Current	Range	Accuracy	Burden voltage
	400.0 µA	± (1.5 %+3 dgt)	6 mV/µA
	2000 µA	± (1.2 %+3 dgt)	6 mV/µA

AC µA Current	Range	Accuracy	Burden voltage
	400.0 µA	± (2.0 %+3 dgt)	6 mV/µA
	2000 µA	± (1.5 %+3 dgt)	6 mV/µA

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 (600 Ω range)	
Open circuit voltage 0.4 V DC typical	
Audible threshold 50 Ω to 300 Ω	
Diode Test	
Diode test current 0.48 mA	
Open circuit voltage < 1.6 V DC	

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Included Accessories
H-PMA protective holster, VC3A zippered carrying case, battery installed and user's manual.

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