## **AMPROBE®**

**Data Sheet** 

# **VPC-31 Voltage & Continuity Tester**

Rugged and easy to use testers for live voltage and continuity checks. Built in shaker provides the same functionality and feel as older analog solenoid testers with benefit of full input protection to CAT IV 600V / CAT III 1000V.

- Super-bright bi-Color LED's indicates safe and dangerous voltages (above 55VDC or 30VAC)
- Auto hold feature LED's stay illuminated for 10 sec retaining a reading after the tests are disconnected
- Solenoid tester-like shaker to indicate AC voltage presence
- Automatically turns ON and OFF for easy and quick measurements
- Non-contact voltage detection and GFCI test feature for testing GFCI receptacles and breakers
- Standard detachable test lead (black) for easy replacement with optional longer or specialized probe
- Automatically selects AC Voltage, DC Voltage or Continuity
- LED's indicate 10 levels of AC and DC Voltages::
  - Volts (AC) 24, 48, 120, 208, 240, 277, 347, 480, 600, 1000
  - Volts (DC) 6, 12, 24, 36, 48, 60, 72, 110, 220, 380
- Auto backlit LCD Digital Display for precise voltage measurements
- **■** Continuity buzzer and Visual continuity indication (LED)
- Water and dust proof, IP65 design
- Safety CAT IV 600 V, CAT III 1000 V



## 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)



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LCD Display	3 digits 1000 counts In an RF Field of 3V/m, total accuracy = Specified accuracy + 45d. Performance above 3V/m is not specified
Update Rate	5 per second nominal
Operating Temperature	-10°C ~ 55°C (14°F ~ 131°F)
Relative Humidity	Maximum relative humidity 80% for temperature up to 31°C (87°F) decreasing linearly to 50% relative humidity at 55°C (131°F)
Altitude	Operating below 2000m
Storage Temperature	-20°C ~60°C (-4°F ~ 140°F), < 80% R.H. (with battery removed)
Temperature C oefficient	Nominal 0.15 x (specified accuracy)/ °C @ (-10°C ~ 18°C or 28°C ~ 55°C), or otherwise specified
Sensing	Average sensing
Type of Protection	IP65
Pollution Degree	2
E.M.C.	Meets EN61326-1:2006 (EN55022, EN61000-3-2, EN61000-3-3, EN61000-4-2, EN61000-4-3, EN61000-4-4, , EN61000-4-5, EN61000-4-6, EN61000-4-8, EN61000-4-11): For both models: Performance is specified in an RF Field of 3V/m. Performance above 3V/m is not specified.
Safety	Meets EN61010-1 and IEC61010-1 2nd Edition (2001)
Measurement Category	CAT III 1000V & CAT IV 600V AC & DC
Transient Protection	8kV lightning surge (1.2/50μs)
Overload Protection	1000VDC & VAC rms
Low Battery	Below approx. 2.4V
Power Supply	Standard 1.5V AAA Size (NEDA 24G or IEC R03) battery X 2; or 1.5V AAA Size (NEDA 24A or IEC LR03) alkaline battery X 2
Power Consumption (typical)	3mA at Power-on ready; 30mA at 1000VAC full LED indication. 75mA at 1000VAC with shaker ON
APO Consumption (typical)	10μΑ
APO Timing	Idle for 30 seconds
Dimension	233(L) x 57(W) x 40(H)mm (9.17 x 2.24 x 1.57 in)
Weight	Approx. 220 g (0.485 lb)
Special Features	High Input Impedance, Indicator Self-Test, Auto-Hold, Overload-Alert Warning, EF-Detection, Auto Display Backlit, AC-Detection Shaker, Bi-Color LED Hazardous Live Warning, and GFCI Leakage Load
Accessories	Detachable (Black) Test Lead, Screw-on Stationary (Red) Probe, 2 Screw-on 4mm Probe Tips, batteries installed and User's manual



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#### **Electrical Specification**

Accuracy is given as +/- (% of reading digits + number of digits) or otherwise specified @ 23oC +/- 5oC and less than 75% R.H

DC & AC Voltage (LED)			
DCV MARKING	Typical Threshold	ACV MARKING	Typical Threshold
6V	5V	24V	19V
12V	10V	48V	38V
24V	19V	120V	96V
36V	30V	208V	166V
48V	42V	240V	22 <del>4</del> V
60V	54V	277V	259V
72V	66V	347V	312V
110V	91V	480V	414V
220V	176V	600V	540V
380V	304V	1000V	800V
Input Impedance	460k, 160pF nominal		
ACV Frequency Response	45Hz ~ 65Hz		
Duty ratio	Continuous duty		
Audible Continuity			
Open Circuit Voltage	0.4VDC typical		
Audible Threshold	between 50k and 2000k		
DC & AC Voltage			
Range	Typical Threshold	Accuracy	
DC 999V	> +5VDC or < -5VDC	1.0%+2d	
AC 999V (50Hz/60Hz)	> 15VAC	2.5%+4d	
Input Impedance: 460k, 160pF	nominal		
Duty ratio: Continuous duty			
AC Detection Shaker Threshold			
Shaker ON	> 24VAC nominal		
Shaker OFF	< 14VAC nominal		



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GFCI Leakage Load	GFCI Leakage Load feature is for 120V nominal circuits only. It is disabled above 132V and below 80V			
Load Current	7.5 mA typical at 120V			
Path Impedance	16 k nominal, PTC protected			
Non-Contact EF-Detection				
Indication	EF LED flashing & audible beep tones proportional to the field strength			
Detection Frequency	50/60Hz			
Detection Antenna	Top end of the meter			
Probe-Contact EF-Detection	For more precise indication of live wires, such as distinguishing between live and ground connections, use the Red (+) test probe for direct contact measurements.			

#### VPC-31 also displays Bar graph segments proportional to the field strength on LCD. Typical values are shown in the following table:

Typical Non-Contact Voltage Range	LCD Bar Graph Indication	
15V to 55V	-	
30V to 95V		
55V to 170V		
Above 120V		

#### **Included Accessories**

Test Leads
Carrying Case
Bead Type,
Thermocouple with banana plug
Users Manual



Distributed by:
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