



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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AMPROBE®

ACD-16 Pro & ACD-16 TRMS Pro

1000A Data-Logging Clamp-on Multimeters



Need the perfect tool to troubleshoot a system? The ACD-16's provide a full range of measurements, enhanced with data logging capabilities, to catch what the eye can't see. Double the efficiency, with an optional PC interface kit.

- TRMS & Backlight Screen (ACD-16 TRMS Pro only)
- Measurements: AC/DC Voltage up to 600V, AC Current up to 1000A, Resistance, Frequency and Temperature
- Data-logging 5400 points
- Optional PC interface capability (RS-232 KIT2)
- Audible continuity
- Auto power off
- Automatic polarity
- Low battery indication
- Data hold
- Large, easy to read LCD display
- Accommodates conductors up to 1.77" (45mm) in diameter
- Carrying case, thermocouple, test leads, batteries (installed) and user manual included
- Voltage overload protection for all functions up to 600V AC/DC
- Safety CAT III 600V

FEATURES	ACD-16 Pro	ACD-16 TRMS Pro	ACCURACY
TRMS Measurement	N/A	Yes	
AC Current	40.0 / 400.0 / 1000 A		+/- (1.0% Rdg + 5 LSD) @ 50 and 60Hz
DC Voltage	600.0V		+/- (0.5% Rdg + 5 LSD)
AC Voltage	600.0V		+/- (1.0% Rdg + 5 LSD) @ 50 / 60 Hz
Resistance	999.9 Ohms		+/- (1.0% Rdg + 6 LSD)
Frequency	5.00Hz to 500.0Hz		+/- (0.5% Rdg + 4 LSD)
Temperature	-58 F to 572 F (-50 C to 300 C)		+/- (2.0% Rdg + 6F) +/- (2.0 % Rdg + 3C)

OPTIONAL ACCESSORIES	PART NUMBER
PC Interface kit (PC connection cable with software)	RS-232 KIT2
Line splitter (Energizer)	A47L
5000A Clamp-on Current Transformer (50 to 1)	CT50-1
3000A Clamp-on Current Transformer (50 to 1)	CT50-2
Dual input Thermocouple adapter with two thermocouples -50°F to 600°F	DKTA-620 and two of TPK-56
Alligator Clips (For test leads)	VRC-320

REPLACEMENT PARTS	PART NUMBER
<i>(supplied with product)</i>	
Test leads with set of alligator clips <i>(alligator clips are not supplied with product)</i>	MTL-90B
Thermocouple	TPK-59
Carrying case	SV-U
Instruction Manual	www.AMPROBE.com



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GENERAL SPECIFICATIONS

Relative Humidity: Maximum relative humidity 80% for temperature up to 31°C decreasing linearly to 50% relative humidity at 40°C

Altitude: Operating below 2000m

Storage Temperature: -20°C to 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 for model; True RMS sensing for model

Safety: Meets IEC61010-2-032(1994), EN61010-2-032(1995), UL3111-2-032(1999). Category III 600 Volts AC & DC

Transient protection: 6.5kV (1.2/50µs surge) for all models

Pollution degree: 2

E.M.C.: Meets EN61326(1997, 1998/A1), EN61000-4-2(1995), and EN61000-4-3(1996)

In an RF field of 3V/m: Total Accuracy = Specified Accuracy + 45 digits Performance above 3V/m is not specified

Overload Protections :

ACA Clamp-on jaws: AC 1000A RMS continuous + & COM terminals (all functions): 600VDC/VAC RMS

Power Supply: standard 1.5V AAA Size (NEDA 24A or IEC LR03) battery X 2

Power Consumption:

Voltage & ACA functions: 3.5mA typical

Ohm & Temperature functions: 4mA typical

APO Timing: Idle for 16 minutes

APO Consumption: 10µA typical

Dimension: L224mm X W78mm X H40mm

Weight: 224 gm approx

Jaw opening & Conductor diameter: 45mm max

Special features: Display Backlight (ACD-16 TRMS) Auto-Hold; Display Hold; On screen stand-alone Hi-Lo logging (5400 minutes) at sampling speed of faster than: 20 per second for Voltage & ACA functions 4 per second for Ohm & Temperature functions 2 per second for Hz function

Accessories: Test leads (MTL-90B), batteries installed, user's manual, TPK-59 banana plug type-K thermocouple & soft carrying pouch

Optional accessories: RS-232 KIT2 interface kit.

Electrical Specifications: Accuracy is ±(% reading digits + number of digits) or otherwise specified, at 23 °C ±5 °C & less than 75% R.H. True RMS Models ACD-16TRMS ACV & ACA clamp-on accuracies are specified from 5% to 100% of range or otherwise specified. Maximum Crest Factor are as specified below, & with frequency spectrums, besides fundamentals, fall within the meter specified AC bandwidth for non-sinusoidal waveforms. Fundamentals are specified at 50Hz and 60Hz.

AC Voltage	
RANGE	Accuracy
50Hz / 60Hz	
600.0V	1.0% + 5d
45Hz ~ 500Hz	
600.0V	1.5% + 5d
500Hz ~ 3.1kHz 9 (ACD-16 TRMS only)	
600.0V	2.5% + 5d
CMRR: >60dB @ DC to 60Hz, Rs=1kΩ	
Input Impedance: 2MΩ, 30pF nominal	
True RMS models Crest Factor: < 2.3 : 1 at full scale & < 4.6 : 1 at half scale	

DC Voltage	
RANGE	Accuracy
600.0V	0.5% + 5d
NMRR: >50dB @ 50/60Hz	
CMRR: >120dB @ DC, 50/60Hz, Rs=1kΩ	
Input Impedance: 2MΩ, 30pF nominal	

Ohms	
RANGE	Accuracy
999.9Ω	1.0% + 6d
Open Circuit Voltage: 0.4VDC typical	
Audible Continuity Tester	
Audible threshold: between 10Ω and 300Ω.	
Response time: 250µs	

Frequency	
RANGE	Accuracy
5.00Hz ~ 500.0Hz	0.5%+4d
Sensitivity (Sine RMS)	
40A range: > 4A	
400A range: > 40A	
1000A range: > 400A	
600V range: > 30V	

Temperature	
RANGE	Accuracy ¹⁾
-50°C ~ 300°C	2.0% + 3°C
-58°F ~ 572°F	2.0% + 6°F
¹⁾ Add 3°C (or 6°F) to specified accuracy @ -20°C ~ -50°C (or @ -4°F ~ -58°F)	
Type-K thermocouple range & accuracy not included	

ACA Current (Clamp-on)	
RANGE	Accuracy ^{1) 2) 3)}
50Hz / 60Hz	
40.00A, 400.0A, 1000A	1.0% + 5d
45Hz ~500Hz	
40.00A, 400.0A	2.0% + 5d
1000A	2.5% + 5d
500Hz ~ 3.1kHz (ACD-16TRMS Pro only)	
40.00A, 400.0A	2.0% + 5d
1000A	2.5% + 5d

True RMS models Crest Factor:
< 2.5 : 1 at full scale & < 5.0 : 1 at half scale for 40.00A & 400.0A ranges

< 1.4 : 1 at full scale & < 2.8 : 1 at half scale for 1000A range

¹⁾ Add 8d to specified accuracy while reading is below 10% of range

²⁾ Induced error from adjacent current-carrying conductor: < 0.06A/A

³⁾ Specified accuracy is for measurements made at the jaw center. When the conductor is not positioned at the jaw center, position errors introduced are:

Add 1% to specified accuracy for measurements made WITHIN jaw marking lines (away from jaw opening)

Add 4% to specified accuracy for measurements made BEYOND jaw marking lines (toward jaws opening)