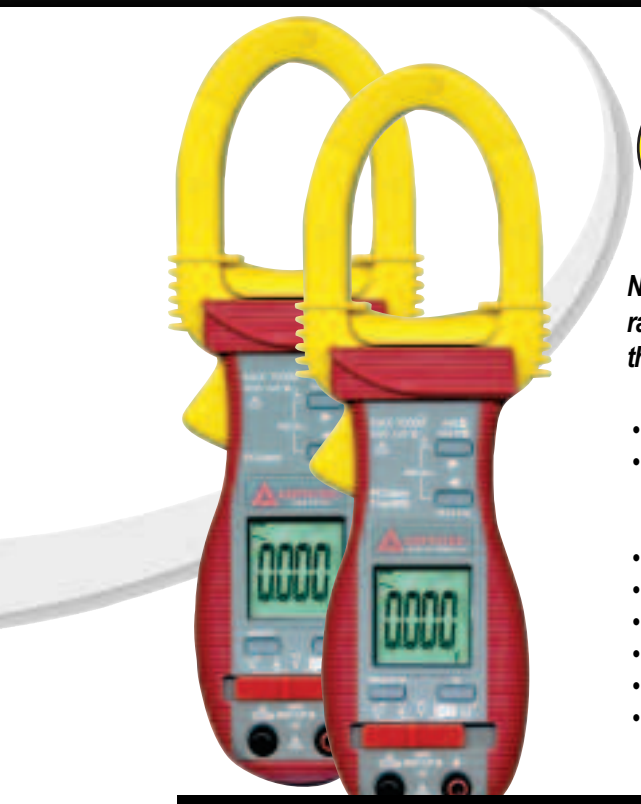
AMPROBE®

ACD-16 Pro & ACD-16 TRMS Pro
1000A Data-Logging Clamp-on Multimeters



LIMITED LIFETIME WARRANTY

CAT III 600V

TRUE RMS ACD-16 TRMS Pro

CE

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 Measuremaent	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 *(supplied with product)*	PART NUMBER
Test leads with set of alligator clips (alligator clips are not supplied with product)	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)/ oC @(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 screenstand-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)

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