



ACD-10 Pro

ACD-10 TRMS Pro

AMPROBE® ACD-10 PRO, ACD-10 TRMS Pro Digital Clamp-on Multimeters



- ▶ AC and DC Voltage to 600V
- ▶ AC Current to 400A
- ▶ Resistance to 40MΩ with Continuity Buzzer
- ▶ Capacitance to 3000 μF
- ▶ Frequency measurement
- ▶ Diode test
- ▶ Hold and Maximum reading functions
- ▶ Accommodates conductors up to 1.02" (26mm) in diameter
- ▶ Auto Ranging
- ▶ Auto power off and low battery indication
- ▶ Rubber over-molded case
- ▶ Overload protected
- ▶ Safety: CE,UL,Cat II 600 V and Cat III 300V
- ▶ Limited Life Time Warranty

Features	ACD-10 Pro	ACD-10 TRMS Pro
AC Voltage	4.000V, 40.00V, 400.0V, 600 V	
DC Voltage	0-400.0mV, 4.000V, 40.00V, 400.0V, 600 V	
AC Current	0-40.00A, 400.0 A	
Resistance with Continuity Buzzer	0-400.0 ,4.000k ,40.00k ,400.0k ,0-4.000M ,40.00 M	
Capacitance	500.0nF, 5.000μF, 50.00μF, 500.00μF, 3000μF	
Frequency (Using Jaw or Test Leads)	40-400Hz with Jaw, 10Hz to 2kHz with test leads	
TRMS measurement	N/A	Yes

Optional Accessories	Part Number
Line splitter (Energizer)	A47L
5000A Clamp-on Current Transformer (50 to 1)	CT50-1
3000A Clamp-on Current Transformer (50 to 1)	CT50-2
600A Clamp-on Current Transformer (10 to 1)	A50-1
Dual Temperature Adapter	TMA-1
Temperature Adapter	TMA-K
Alligator Clips (For test leads)	VRC-320

Replacement Parts (supplied with product)	Part Number
Test leads with set of alligator clips (alligator clips not supplied with product)	MTL-90B
Carrying case	SV-U
Instruction Manual	www.amprobe.com



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Digital Clamp-on Multimeters

Electrical Specifications

Accuracy is ±(% reading digits + number of digits) or otherwise specified, at 23°C ± 5°C & less than 75% R.H.

1) Model ACD-10 PRO TRMS. True RMS accuracy of ACV is specified from 5% to 100% of range, and ACAIs specified from 10% to 100% of range, or otherwise specified. Maximum Crest Factor < 1.75 : 1 at full scale & < 3.5 : 1 at half scale, with frequency components within the specified frequency bandwidth for non-sinusoidal waveforms.

DC Voltage: ACD-10 PRO/TRMS PRO

RANGE	Accuracy ¹⁾
400.0mV	0.3% + 4d
4.000V, 40.00V, 400.0V	0.5% + 3d
600V	1.0% + 4d

NMRR : >50dB @ 50/60Hz
 CMRR : >120dB @ DC, 50/60Hz, Rs=1k
 Input Impedance : 10MΩ, 30pF nominal
 (1000MΩ for 400.0mV range)

AC Voltage: ACD-10 PRO/TRMS PRO

RANGE	Accuracy ¹⁾
50Hz--500Hz	
4.000V, 40.00V, 400.0V	1.5% + 5d
600V	2.0% + 5d

CMRR : >60dB @ DC to 60Hz, Rs=1k
 Input Impedance : 10MΩ, 30pF nominal
Max Hold (where applicable)
 Specified accuracy ± 50 digits for changes > 25ms in duration

OHMS: ACD-10 PRO/TRMS PRO

RANGE	Accuracy ¹⁾
400.0	0.8%+6d
4000.k, 40.00k, 400.0k	0.6%+4d
4.000k	1.0%+4d
40.00M	2.0%+4d

Open circuit Voltage: 0.4VDC typical
Audible Continuity Tester
 Audible threshold : between 20Ω and 120Ω

Capacitance: ACD-10 PRO/TRMS PRO

RANGE*	Accuracy ^{1) **}
500.0nF, 5.000µF, 50.00µF, 500.0µF, 3000µF	3.5%*** + 6d

*Additional 50.00nF range accuracy is not specified
 **Accuracies with film capacitor or better
 ***Specified with battery voltage above 2.8V (approximately half full battery).
 Accuracy decreases gradually to 12% at low battery warning voltage of approximately 2.4V

AC CURRENT: ACD-10 PRO/TRMS PRO

RANGE	Accuracy ¹⁾
50Hz/60Hz	
40.00A	1.9%+8d
400.0A	1.9%+8d*
600A**	unspecified

*Accuracy specified to 350A continuous, and 400A for 60 second max with 5 minutes cool down interval.
 **Added range to indicate instantaneous over-range current values

Hz frequency: ACD-10 PRO/TRMS PRO

Function	Sensitivity (Sine RMS)	Range
400.0mV	150mV	10Hz--2kHz
4000V	3.2V	5Hz--40kHz
40.00V	25V	5Hz--100kHz
400.0V	100V	5Hz--100kHz
600V	400V	5Hz--5kHz
400.0A	55A	40Hz--400kHz

Display counts: 5000
 Best resolution: 0.001Hz
 Accuracy: 0.5%+4d

Specifications

General Specifications

Display : 3-3/4 digits 4000 counts LCD display(s)

Update Rate : 3 per second nominal

Polarity : Automatic

Low Battery Indication: Below approx. 2.4V

Operating Temperature : 0°C to 40°C

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 ACD-10 PRO. True RMS for ACD-10TRMS PRO

Safety: Meets IEC61010-2-032 (1994), EN61010-2-032 (1995), UL3111-2-032 (1999)

For ACD-10 PRO/TRMS PRO: Category II 600 Volts AC & DC, and Category III 300 Volts AC & DC

Transient protection: 6.5kV (1.2/50ms 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:

Capacitance function is not specified

Other function ranges : Total Accuracy = Specified Accuracy + 45 digits.

Performance above 3V/m is not specified

Overload Protections :

ACAClamp-on jaws : AC 400ARMS continuous

"+" & "COM" terminals (all functions) : 600VDC/VAC RMS

Power Supply : 3V alkaline button battery (ANSI/NEDA-5004LC, IEC-CR2032). One battery for ACD-10 PRO & ACD-10 TRMS PRO.

Power Consumption : 2.5 mAtypical

APO Timing : Idle for 30 minutes

APO Consumption : 0.8mAtypical on all functions except on ACD-10 TRMS PRO Amps and Volts where it is 25mA

Dimension : L7.8" X W 2.48" X H 1.25"

Weight : 0.412 Lb approx.

Jaw opening & Conductor diameter : 1.02" max

Accessories : Test leads (pair), battery installed, user's manual, & soft carrying pouch

Diode Tester: ACD-10 PRO/TRMS PRO

Open Circuit Voltage	Test Current (Typical)
< 1.6 VDC	0.25mA



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