AMPROBE®

Data Sheet

HD110C
Heavy-Duty Digital Multimeter

Key features:

- **Measures 1500 VDC**
- **CAT IV 1000 V**
- **IP67 Rated**
- **Magne-Grip™ holster with magnetic hanging strap**

- Highest voltage capability, measuring to 1500 V dc and 1000 V ac
- CAT IV 1000 V rated
- Special sealing for environment and water resistance. IP67 rated
- Constructed with drop-resistant housing and PCB mounting
- Magne-Grip™ holster, frees both hands for work
- Includes high voltage test leads with threaded alligator clips

The HD110C is designed for professional use in harsh environments. The meter is unusually rugged and reliable in everyday heavy use applications. The meter is made using waterproof construction to prevent dirt, grime and moisture from entering the case and causing inaccurate readings or damaging shorts.

Built of tough, fire-retardant thermoplastic resistant to grease and chemical spills, with all sensitive components shock-mounted for a drop resistant to at least eight feet.

HD110C has an extended voltage measurement capability of 1500 V dc and 1000 V ac, unmatched by any other line of digital multimeters. The extended voltage ranges can withstand transients up to 12 kV.

HD110C

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.

C US CAT IV 1000V N10140

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HD110C Technical Specifications

Data Sheet

General Specifications

Display	3-1/2 digit LCD, 1999 counts, with annunciators and menu features
Polarity Indication	Automatic
Input overload indication	1
Low Battery Indication	; < 50 hours battery life remain, accuracy is no longer guaranteed
Display Update Rate	2.5/sec, nominal
Oper. Temp.	0 °C to +50 °C, (< 75 % R.H.)
Storage Temp	-20 °C to 60 °C, 0 to 80 % RH, battery removed
Temperature coefficient	0.1 x (spec. accuracy)/°C (0 ° to 18 °C and 28° to 50 °C) all functions and ranges except for mVDC 0.3 x (spec. accuracy)/°C (0 ° to 18 °C and 28° to 50 °C) for mVDC
Altitude	Up to 2000 m — indoor use
Fuse	F 2 A/1500 V fuse (8 mm x 65 mm), I.R. 30 kA – Amprobe® p/n FP700
Power	Standard 9 V battery, NEDA 1604, JIS 006P,IEC 6F22
Auto Power-Down	Meter powers down after approx. 30 min. of inactivity.
Battery Life	250 hours typical with carbon-zinc, 500 hours typical with alkaline
Dimensions, with holster (H x W x D)	200 x 102 x 59 mm (7.9 in x 4.0 in x 2.3 in)
Weight (incl. battery)	642 g (20 oz)
Accessories	Heavy Duty CAT IV 1000 V Test leads with threaded alligator clips (TL1500), battery (in instrument), hex wrench in holster, Magne-Grip flex strap and User Manual
Case material	Flame retardant, high-impact thermoplastic
Safety	Meets EN 61010-1 **CAT IV 1000 V (1500 V DC max) Class II, EN 60529:IP67**
EMC	Meets EN 61326-1

Electrical Specifications *(Accuracies at 23 °C ± 5 °C, <75 % RH non-condensing, guaranteed for one year.)*

Function	Range	Accuracy
DC Volts		
Ranges	200 mV, 2 V, 20 V, 200 V, 1500 V	
Resolution	0.1 mV	
Accuracy	All ranges	±(0.1 % rdg+2 dgts)
Input Impedance	10 MΩ	
OL Protection	1500 V dc/1000 V ac rms	
Transient Protection	12 kV impulse (1.2 µS/50 µS) based on EN 61010-1:2001 impulse requirement for at CAT IV 1000 V product. This product should not be used in installations where transients exceed 12 kV.	
AC Volts (45 Hz to 2 kHz)		
Ranges	200 mV, 2 V, 20 V, 200 V, 1000 V	
Resolution	0.1 mV	
Accuracy	200 mV to 200 V (45-500 Hz) 200 mV to 200 V (500 Hz-2 kHz) 1000 V (50-60 Hz) 1000 V (60-500 Hz)	±(0.8 % rdg+4 dgts) ±(1.5 % rdg+5 dgts) ±(0.8 % rdg+4 dgts) ±(1.5 % rdg+5 dgts)
Input Impedance	10 MΩ	
OL Protection	1500 V dc/1000 V ac rms	
Transient Protection	12 kV impulse (1.2 µS/50 µS) based on EN 61010-1:2001 impulse requirement for at CAT IV 1000 V product. This product should not be used in installations where transients exceed 12 kV.	
DC Current		
Ranges	200 µA, 2 mA, 20 mA, 200 mA, 2 A	
Resolution	0.1 µA	
Accuracy	200 µA to 20 mA 200 mA to 2 A	±(0.5 % rdg+2 dgts) ±(1.0 % rdg+2 dgts)

HD110C Technical Specifications (continued)

Function	Range	Accuracy
DC Current (cont.)		
Voltage Burden	250 mV max. (1 mV/1 µA on 200 µA Range) (100 mV/1 mA on 2 mA Range) (10 mV/1 mA on 20 mA Range) (1.5 mV/1 mA on 200 mA Range) (500 mV/1 A on 2 A Range)	
OL Protection	A Input (F 2 A/1500 V, size 8 x 65 mm IR fast blow ceramic) (FP 700)	
AC Current (45 Hz to 1 kHz)		
Ranges	200 µA, 2 mA, 20 mA, 200 mA, 2 A	
Resolution	0.1 µA	
Accuracy	200 µA to 20 mA 200 mA to 2 A	±(0.8 % rdg+4 dgts) ±(1.2 % rdg+4 dgts)
Voltage Burden	250 mV max. (1 V on 2 A range)	
OL Protection	same as DC Current	
Resistance		
Ranges	200 Ω, 2 kΩ, 20 kΩ, 200 kΩ, 2 MΩ, 20 MΩ	
Resolution	0.1 Ω	
Accuracy	200 Ω 2 kΩ to 200 kΩ 2 MΩ 20 MΩ	±(0.5 % rdg+4 dgts) ±(0.3 %rdg+2 dgts) ±(1.0 % rdg+4 dgts) ±(2.0 %rdg+4 dgts
OL Protection	1500 V dc/1000 V ac rms	
Open Circuit Voltage	200 Ω range all other ranges	3.0 V dc typical 0.3 V dc typical.
Diode/Continuity Test		
Test Current	1m A dc typical	
Test/Open Circuit Voltage	3.0 V dc Typical	
Diode Accuracy	±(1.5 % rdg+2 dgts)	
Continuity Audible Threshold	<50 Ω ± 25 Ω	
Response Time	<100 msec	
OL Protection	1500 V dc/1000 V ac rms	

Data Sheet

Included Accessories

Heavy Duty CAT IV 1000 V Test leads with threaded alligator clips (TL1500), battery (in instrument), hex wrench in holster, Magne-Grip flex strap and User Manual

Optional Accessories

TL1500	Cat IV 1000 V Test Leads with Alligator Clips
CT235A	1000 A ac/dc Clamp
CT237A	200 A ac/dc Current Clamp
CT238A	20 A ac/dc Current Clamp
VC221B	Padded Vinyl Case. Fits meter & holster.
DC205C	Deluxe Hard-Shell Carry Case
DC207C	Large Deluxe Hard-Shell Carry Case with extra space for accessories
HV231-10A	High Voltage Probe
FP700	Replacement Fuse, 2 A/1500 V, pack of two

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