

Data Sheet

HD110B Digital Multimeter



Rugged DMMs constructed for IP67 water proofing and harsh environments

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

They are 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.

Every meter in the HD line 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 6 kV.

The HD110B features:

- MIL-PRF-28800 rated
- Drop proof special housing and PCB mounting
- Extra fusing and protection from accidental overloads
- Highest voltage measuring to 1500 V dc and 1000 v ac
- Oversized shock mounted LCD display
- Auto power off
- Unique live voltage safety tester

Specifications (at 23 °C ± 5 °C, < 80 % R.H.)

Function	Range	Accuracy
Voltages		
DC Voltage		
Ranges	200 mV, 2 V, 20 V, 200 V, 1500 V	± (0.1 % rdg + 2 dgt)
CMRR	> 120 db @ < 1000 V DC (1 kΩ unbalanced)	
NMRR	> 60 db @ 50/60 Hz	
AC Voltage		
Ranges	200 mV, 2 V, 20 V, 200 V, 1000 V	
	200 mV to 200 V (40 Hz to 500 Hz)	± (0.8 % rdg + 4 dgts)
	200 mV to 20 V (500 Hz to 5k Hz)	± (1.5 % rdg + 5 dgts)
	200 V (500 Hz to 2k Hz)	± (1.5 % rdg + 5 dgts)
	1000 V (50 Hz to 60 Hz)	± (0.8 % rdg + 5 dgts)
	1000 V (60 Hz to 500 Hz)	± (1.5 % rdg + 5 dgts)
Resolution	100 μV in 200 mV range	
Input Impedance	10 MΩ	
Current		
DC Current		
Ranges	200 μA, 2 mA, 20 mA, 200 mA, 2 A, 10 A	
	200 μA to 20 mA	± (0.5 % rdg + 2 dgts)
	200 mA to 2 A	± (1.0 % rdg + 2 dgts)
	10 A	± (1.2 % rdg + 2 dgts)
Resolution	100 nA in 200 mV range	
AC Current (45 Hz-1 kHz)		
Ranges	200 μA to 20 mA	± (0.8 % rdg + 4 dgts)
	200 mA to 2 A	± (1.2 % rdg + 4 dgts)
	10 A	± (1.5 % rdg + 4 dgts)
Resolution	100 nA in 200 μA range	
Voltage Burden		
	200 μA range: 1 mV/1 μA	
	2 mA range: 100 mV /1 mA	
	20 mA range: 10 mV/1 mA	
	200 mA range: 1 mV/1 mA	
	2 A range: 370 mV/1 A	
	10 A range: 53 mV/1 A	

Specifications (at 23 °C ± 5 °C, < 80 % R.H.) cont.

Function	Range	Accuracy
Resistance	200 Ω, 2 kΩ, 20 kΩ, 200 kΩ, 2 MΩ, 20 MΩ	
	200 Ω	± (0.5 % rdg + 4 dgts)
	2 kΩ to 200 kΩ	± (0.3 % rdg + 2 dgts)
	2 MΩ	± (0.5 % rdg + 4 dgts)
	20 MΩ	± (1.2 % rdg + 4 dgts)
Resolution	100 mΩ in 200 Ω range	
Open Circuit Voltage	200 Ω range: 3.0 V dc typical	
	all other ranges: 0.3 V dc	
Diode Test	0 to 1.999 V	± (1.5 % + 2 dgts)
Test Current	1 mA dc	
Open Circuit Voltage	3.0 V dc	
Continuity Test		
Audible Threshold	< 50 Ω	
Response Time	< 100 msec	
Open Circuit Voltage	3.0 V dc	
Safety Tester		
Signal Voltage Levels	24 V, 50 V, 120 V, 240 V, 480 V, ac or dc	
Maximum Input	600 V ac for 60 sec	
Overload Protection		
Voltage	1500 V dc/1000 V ac rms	
Transient Protection	6 kV for 10 μs	
Current		
A Input	2 A/600 V fast blow ceramic, size 6.35 x 25.4 mm	
10 A Input	15 A/600 V 100 k IR fast blow ceramic, size 10 x 38 mm UL listed	
Diode, Resistance	500 V dc or V ac rms	

No waiting.

No shipping charges.

No hassle warranty

Our commitment to high-quality products and customer service is demonstrated by our industry exclusive "No Hassle" warranty. In the unlikely event that a Meterman test tool requires warranty service, any of our local dealers are authorized to replace it, on the spot.


General Specifications

Display	3 1/2 digit LCD, 1999 counts
Display Update Rate	2/sec. nominal
Power	9 V battery, NEDA 1604, JIS 006P, IEC 6F22
Battery Life	300 hours
Operating Temperature	0 °C to + 50 °C, 0 to 80 % R.H.
Storage Temperature	- 20 °C to 60 °C, 0 to 80 % R.H. battery removed
Temperature Coefficient	< 0.1 x (spec.accuracy)/°C (0 °C to 18 °C and 28 ° to 50 °C)
Dimensions (HxWxD)	224 mm x 99 mm x 58 mm (8.8 in x 3.9 in x 2.3 in)
Weight (including battery)	635 g (1.4 lb)
Warranty	One-year

Included Accessories

Test leads, holster, hanging strap and users manual.

Optional Accessories

DC207B	Hard Case
DL243C	Basic Test Lead Kit
DL248C	Deluxe Test Lead Kit
TL36	Test Lead Set with Alligator Clips

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Meterman Test Tools

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