

## Data Sheet

# HD110 Digital Multimeter



## Completely sealed, environment proof, professional digital multimeter

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 3 kV.

### The HD110 features:

- V dc accuracy of 0.1 %
- Superior 1500-hour battery life
- Shock and vibration: Meets MIL-T-28800
- Low battery indicator at 100 hours

### Specifications (at 23°C ± 5°C, < 70% R.H.)

Function	Range	Accuracy
<b>Voltage</b>		
DC Voltage	200 mV, 2 V, 20 V, 200 V, 1500 V	± (0.1 % rdg + 1 dgt)
NMRR	> 60 db	
CMRR	> 60 db (49 Hz)	
AC Voltage	200 mV, 2 V, 20 V (45 Hz to 2 kHz)	± (0.75 % rdg + 3 dgts)
	200 mV, 2 V, 20 V (2 kHz to 5 kHz)	± (1.5 % rdg + 5 dgts)
	200 V (45 Hz to 1 kHz)	± (0.75 % rdg + 3 dgts)
	1000 V (45 Hz to 500 Hz)	± (0.75 % rdg + 3 dgts)
	1000 V (500 Hz to 1000 Hz)	± (1.5 % rdg + 5 dgts)
AC Conversion	Average sensing, rms indicating	
Resolution	0.1 mV in 200 mV range	
Input Impedance	10 MΩ (dc)	
	10 MΩ//75 pF (ac)	
<b>Current</b>		
DC Current	200 μA, 2 mA, 20 mA, 200 mA, 2 A	± (0.35 % rdg + 1 dgt)
	10 A	± (1.0 % rdg + 1 dgt)
AC Current	200 μA, 2 mA, 20 mA, 200 mA, 2 A	± (0.9 % rdg + 3 dgts)
	(45 Hz to 2 kHz)	
	10 A (45 Hz to 400 Hz)	± (1.5 % rdg + 3 dgts)
AC Conversion Type	Average sensing, rms indicating	
Resolution	0.1 μA in 200 μA range	
Voltage Burden	200 μA range: 1 mV/μA 2 mA range: 100 mV/1 mA 20 mA range: 10 mV/1 mA 200 mA range: 1.2 mV/1 mA 2 A range: 300 mV/1 A 10 A range: 37 mV/1 A	
Resistance	200 Ω, 2 kΩ, 20 kΩ, 200 kΩ, 2 MΩ	± (0.2 % rdg + 1 dgt)
	20 MΩ	± (1.0 % rdg + 1 dgt)
Resolution	0.1 Ω in 200 Ω range	
Max Open Circuit Voltage	200 Ω: 3 V Other: 0.3 V	
Max In-Range Voltage	200 mV	
Max Test Current	2.5 mA	

**Specifications** (at 23 °C ± 5 °C, < 70 % R.H.) cont.

Function	Range	Accuracy
<b>Diode Test</b>	0 to 2 V	± (6.0 % rdg + 2 dgts)
Test Current	2 mA ± 20 %	
Display Response	1 sec.	
<b>Continuity</b>		
Tone and Visual Signal	< 80 Ω	
<b>Overload Protection</b>		
<b>Transient Protection</b>		
ACV/DCV any Range	3 kV for 10 μs	
DCV Range	1500 V DC or pk ac any range	
ACV Ranges	1000 Vrms/1500 V pk ac or 250 V DC (5 sec max. above 450 V rms on 200 mV range)	
Current Range	200 μA to 2 A ranges: 2 A/600 V fuse (3000 A interrupt rating) 10 A range: 15 A/600 V fuse (100 kA interrupt rating)	
<b>Resistance/Diode/Continuity Ranges</b>	600 V DC or rms AC	

**General Specifications**

Display	3-1/2 digit LCD
Measurement Rate	2.5/sec.
Response Time	< 2 msec
Battery Type	One 9 V battery NEDA 1604
Battery Life	1500 hours
Operating Temperature	0 °C to 50 °C (32 °F to 122 °F)/0 to 80 % R.H.
Storage Temperature	-40 °C to 65 °C (-40 °F to 149 °F)
Dimensions (HxWxD)	184 mm x 102 mm x 50 mm (6.9 in x 3.7 in x 1.8 in)
Weight	543 g (1 lb, 3 oz)
Warranty	One-year

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.


**Included Accessories**

Test leads, battery, users manual.

**Optional Accessories**

VC221A Vinyl Case  
DL243C Basic Test Lead Kit  
DL248C Deluxe Test Lead Kit  
TL36 Test Lead Set with Alligator Clips

**Meterman®**  
**The right tool, everyday.™**

**Meterman Test Tools**

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