

Model HD160B

True-rms Heavy Duty Digital Multimeter



- Heavy-duty, rugged autoranger
- 10,000-count with bargraph
- True-rms measuring
- Special sealing for environment and water proofing, IP67 and MIL-SPF-28800F rated
- Extra fusing and protection from accidental overloads
- Highest voltage measuring to 1500 V dc and 1000 V ac
- Unique live voltage Safety Tester™
- CAT III 1000 V rated

HD160B Specifications (at 23 °C ± 5 °C, < 75 % R.H. non-condensing)

DC Voltage	
Ranges	1 V, 10 V, 100 V, 1500 V
Accuracy	1 V ± (0.25 % rdg + 6 dgts) 10 to 1500 ± (0.1 % rdg + 2 dgts)
Resolution	0.1 mV in 1 V range
Input Impedance	10 MΩ
CMRR	> 120 dB to 1500 V
NMRR	> 60 dB at 50/60 Hz
AC Voltage	
Ranges	10 V, 100 V, 1000 V
Accuracy	10 V (45 Hz to 10 kHz): ± (1.5 % rdg + 5 dgts) 100 V range (2 V to 30 V): (45 Hz to 10 kHz) ± (1.5 % rdg + 3 dgts) (10 kHz to 30 kHz) ± (2.5 % rdg + 5 dgts) 100V range (> 30 V): (45 Hz to 1 kHz) ± (1.5 % rdg + 3 dgts) 1000 V (45 Hz to 1 kHz) ± (1.5 % rdg + 3 dgts)
Resolution	1 mV in 10 V range
Conversion Type	True rms (ac coupled)
Input Impedance	10 MΩ shunted by < 100 pF
Crest Factor	1:1 through 5:1
DC Current	
Ranges	10 mA, 40 mA, 10 A
Accuracy	± (0.75 % rdg + 5 dgts)
Voltage Burden	mA ranges: 20 mV/mA 10 A range: 30 mV/A
Resolution	10 μA in 10 mA range
AC Current (45 - 1 kHz)	
Ranges	10 mA, 40 mA, 10 A
Accuracy	All ranges ± (1.75 % rdg + 5 dgts)
Voltage Burden	See DC Current
Resolution	10 μA in 10 mA range
Conversion Type	True rms (ac coupled)
Crest Factor	1:1 through 1:5
Resistance	
Ranges	1 kΩ, 10 kΩ, 100 kΩ, 1 MΩ, 10 MΩ, 40 MΩ
Accuracy	1 kΩ to 1 MΩ ± (0.5 % rdg + 1 dgt) 10 MΩ ± (1.0 % rdg + 1 dgt) 40 MΩ ± (1.5 % rdg ± 2 dgts)
Test Current	1 kΩ: 1 mA 10 kΩ: 150 μA 100 kΩ: 15 μA 1 MΩ: 1.5 μA 10 MΩ, 40 MΩ: 0.2 μA
Response Time	1 kΩ: 1 sec 10 kΩ to 40 MΩ: 3 sec
Resolution	0.1 Ω in 1 kΩ range
Open Circuit Voltage	1 kΩ range: 3.0 V DC All other ranges: 1.3 V DC
Diode Test	
Ranges	1.0 V, 2.25 V
Accuracy	± (1.0 % rdg ± 1 dgts)
Resolution	0.1 mV in 1 V range
Short Circuit Current	1.5 mA DC
Open Circuit Voltage	3.0 V
Display	Forward junction voltage

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HD160B Specifications (at 23 °C ± 5 °C, < 75 % R.H. non-condensing) cont.

Continuity	
Continuity Threshold	50 Ω ± 25 Ω
Response Time	< 1 sec
Open Circuit Voltage	3.0 V
Overload Protection	
DC Voltage	1500 V DC
Transient Protection	6 kV
AC Voltage	< 10 Hz: 400 V AC or 533 V peak; > 10 Hz: 1000 V rms
Transient Protection	6 kV for 10 ms
AC/DC Current	mA input: 0.5 A/600 V (1000 AIC) 10A input: 15 A/600 V (100,000 AIC)
Resistance/Diode/Continuity	All ranges 500 V DC or V AC rms



General Specifications

Display: 4 digit LCD, 4000/10000 counts; **Display Update Rate:** 2/sec, nominal; bargraph 20/sec; **Power:** 9 V battery, NEDA 1604, JIS 006P, IEC 6F22; **Battery Life:** 450 hours; **Operating Temperature:** 0 °C to + 50 °C, 0 to 70 % R.H.; **Storage Temperature:** - 40 °C to 70 °C, 0 to 95 % R.H. battery removed; **Dimensions (HxWxD):** 224 x 99 x 58 mm (8.8" x 3.9" x 2.3"); **Weight (incl. battery):** 644 grams (1.42 lb); **Included Accessories:** Test leads, operators manual, holster

Features

Low Battery Indication at 50 hours; **Auto Power-Down** after 60 minutes; **Range Lock;** **Probe Hold;** **Rel, Min/Max;** **Digi-Glo™ Backlight;** **40 Segment Bargraph;** **Warranty:** One-year

Optional Accessories

DC207B Deluxe Hard Case; **DL243C** Basic Test Lead Kit; **DL248C** Deluxe Test Lead Kit; **TL35A** Test Lead Set with Alligator Clips

For additional accessories, see the Accessories Compatibility Guide at www.metermantesttools.com



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