

## Data Sheet

# HD115B 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 HD115B features:

- Digi-Glo™ backlight
- Capacitance
- 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. non-condensing)

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

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

| Function                            | Range  | Accuracy               |
|-------------------------------------|--|------------------------|
| <b>Resistance</b>                   | 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) |
| <b>Resolution</b>                   | 100 mΩ in 200 Ω range  |                        |
| <b>Open Circuit Voltage</b>         | 200 Ω range: 3.0 V dc typical  |                        |
|                                     | All other ranges: 0.3 V dc   |                        |
| <b>Capacitance</b>                  | 200 nF, 2 μF, 20 μF, 200 μF, 2 mF                                      | ± (2 % rdg + 4 dgts)   |
|                                     | 20 mF  | ± (3 % rdg + 4 dgts)   |
| <b>Test Frequency/Response Time</b> | 200 nF: 820 Hz / 1.5 sec   |                        |
|                                     | 2 μF and 20 μF: 82 Hz / 5 sec  |                        |
|                                     | 200 μF to 20 mF: 8.2 Hz / 10 sec                                       |                        |
| <b>OL Protection</b>                | 0.1 A / 250 V fast blow fuse, 5 x 20 mm                                |                        |
| <b>Diode Test</b>                   | 0 to 1.999 V   | ± (1.5 % + 2 dgts)     |
| <b>Test Current</b>                 | 1 mA dc  |                        |
| <b>Open Circuit Voltage</b>         | 3.0 V dc   |                        |
| <b>Display</b>                      | Forward junction voltage   |                        |
| <b>Continuity Test</b>              |  |                        |
| <b>Audible Threshold</b>            | < 50 Ω   |                        |
| <b>Response Time</b>                | < 100 msec   |                        |
| <b>Safety Tester</b>                |  |                        |
| <b>Signal Voltage Levels</b>        | 24 V, 50 V, 120 V, 240 V, 480 V, ac or dc                              |                        |
| <b>Maximum Input</b>                | 600 V ac for 60 sec  |                        |
| <b>Overload Protection</b>          |  |                        |
| <b>DC Voltage</b>                   | 200 mV range: 350 V ac/500 V dc (15 sec)                               |                        |
|                                     | All other ranges: 600 V rms/1000 V dc (60 sec)                         |                        |
| <b>AC Voltage</b>                   | All ranges 500 V dc or ac rms  |                        |
| <b>Transient Protection</b>         | 6 kV for 10 ms   |                        |
| <b>Current</b>                      |  |                        |
| 200 mA input                        | 0.5 A/250 V fast blow ceramic, size 6.35 mm x 25.4 mm                  |                        |
| 10 A input                          | 15 A/600 V 100 k IR fast blow ceramic, size 10 mm x 38 mm<br>UL listed |                        |
| <b>Resistance/Continuity</b>        | 500 V dc or ac rms   |                        |

No waiting.

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## 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

|                                   |   |
|-----------------------------------|---|
| <b>Display</b>                    | 3 1/2 digit LCD, 1999 counts                      |
| <b>Display Update Rate</b>        | 2/sec. nominal                                    |
| <b>Power</b>                      | 9 V battery, NEDA 1604, JIS 006P, IEC 6F22        |
| <b>Battery Life</b>               | 100 hours   |
| <b>Operating Temperature</b>      | 0 °C to + 50 °C, 0 to 80 % R.H.                   |
| <b>Storage Temperature</b>        | - 20 °C to 60 °C, 0 to 80 % R.H. battery removed  |
| <b>Dimensions (HxWxD)</b>         | 224 mm x 99 mm x 58 mm (8.8 in x 3.9 in x 2.3 in) |
| <b>Weight (including battery)</b> | 635 g (1.44 lb)                                   |
| <b>Warranty</b>                   | One-year  |

### Included Accessories

Test leads, holster, hanging strap and users manual.

### Optional Accessories

|               |                                    |
|---------------|------------------------------------|
| <b>DC207B</b> | Hard Case                          |
| <b>DL243C</b> | Basic Test Lead Kit                |
| <b>DL248C</b> | Deluxe Test Lead Kit               |
| <b>TL35A</b>  | Test Lead Set with Alligator Clips |

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8/2005 1646428 D-US-N Rev B