



Test Tools Product Catalog



Electrical



Electronics



Industrial



Automotive



**Home
Improvement**

Volume 3

Quality and service beyond compare

Wavetek Meterman test tools include a broad range of test and measurement instruments for use in the design, evaluation, installation, production, service and troubleshooting of electronic and electrical equipment and systems. The products shown in this catalog include an extensive selection of portable multimeters (DMMs), clamp-around meters, component checkers, bench-top meters, and specialty tools such as logic probes and short-finders to meet any application. Also shown is a complete selection of accessories including protective cases, test leads and adapters.



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

The products shown in this catalog are sold and supported by a worldwide network of Wavetek Meterman distributors and dealers. Should you require any assistance or have questions about our products or their applications, these local dealers stand ready to serve you.

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Low Cost, Small Sized Multi-Testers *Page 6*



DM73B



Temperature and Light Testers *Page 23*



IR610



LM631



Hand-Held Portable DMM *Page 10*



85XT

- New low price on True-rms meter
- 0.05 % accuracy, 20,000-count
- See page 10 for full details

Clamp-Around Meter *Page 16*



AD40A

- New low price on mini-clamp meter
- 400A AC, autoranging
- See page 16 for full details

Offering one of the broadest selections of standard multimeters in the world, Wavetek Meterman has a model best suited to your applications.

Hand-Held Portable Multimeters/DMMs

Whether you know them as DMMs, VOMs, Multitesters, or Multimeters, Wavetek Meterman packs them with functions, features, and support to meet every application and ensure the best value. You can select from low-cost basic testers to high-performance, 0.1 % accurate autorangers, to heavy-duty DMMs. Wavetek Meterman DMMs are for use by everyone, from DIY enthusiasts to professional electronic and electrical engineers and technicians, to industrial and commercial plant and facilities maintenance technicians. Larger displays, extra fusing (including spare fuses!), safety test leads, superior new Digi-Glo[™] backlighting, Live Voltage Safety Tester, wrong input user warning beepers, and patented new T-Shape designs are all innovations you will find in Wavetek Meterman multimeters.

AM8

- Home, auto, boat, RV, workshop
 - 5 functions/15 ranges
 - Smallest size
 - Special ranges to test household batteries
 - Ohms zero adjust
 - Holster included
- DC Voltage:** 0-500 V, ± 5.0 %
AC Voltage: 0-500 V, ± 5.0 %
DC Current: 0-250 mA, ± 5.0 %
Resistance: 0-2 M Ω , ± 5.0 %
Battery Test: 1.5 V, 9 V DC
CAT II 300 V Rated



DM7

- Digital readout for house, auto, boat, RV, workshop
 - 6 functions/14 ranges
 - Special ranges to test household batteries
 - 2000-count
 - Holster included
- DC Voltage:** 1 mV-600 V, ± 0.8 %
AC Voltage: 100 mV-600 V, ± 1.5 %
DC Current: 0.1 mA-200 mA, ± 2.0 %
Resistance: 1 Ω -2 M Ω , ± 1.0 %
Battery Test: 1.5 V, 9 V DC
Diode Test
CAT II 600 V Rated



DM2

- Thin, compact design
 - Replaceable, plug-in test leads
 - 5 functions/17 ranges
 - 2000-count
- DC Voltage:** 0.1 mV-1000 V, ± 0.8 %
AC Voltage: 100 mV-500 V, ± 1.2 %
DC Current: 1 μ A-200 mA, ± 1.2 %
Resistance: 0.1 Ω - 2 M Ω ± 1.8 %
Diode Test
Not for sale in EC



DM78A

- Smallest, go anywhere meter
- 5 functions/16 ranges
- Auto-off saves batteries
- Data hold
- Protective case included
- 3200-count display w/analog bargraph

DC Voltage: 0.1 mV-450 V, ± 2.0 %

AC Voltage: 10 mV-450 V, ± 4.0 %

Resistance: 0.1 Ω -32 M Ω , ± 2.0 %

Diode Test and Continuity Beeper

CAT II 300 V Rated

CAT I 600 V Rated



DM9

- Top meter for home, auto, boat, RV, workshop
- High resolution, 4000-count autoranger
- 8 functions/19 ranges
- Special ranges to test household batteries w/good, not good LED
- Holster included

DC Voltage: 1 mV-600 V, ± 0.8 %

AC Voltage: 1 mV-600 V, ± 1.5 %

DC Current: 1 μ A-400 mA, ± 2.0 %

AC Current: 1 μ A-400 mA, ± 2.0 %

Resistance: 0.1 Ω -40 M Ω , ± 1.0 %

Diode Test and Continuity Beeper

CAT II 600 V Rated



DM73B

- Ideal for small electronics, lighting troubleshooting, production machinery
- Unique "Pen" shape autoranger
- Small and light, goes anywhere
- Allows one-hand operation in tight spots
- 3400-count display with analog bargraph
- Data hold
- Auto-off

DC Voltage: 0.1 mV-600 V, ± 0.5 %

AC Voltage: 1 mV-600 V, ± 1.5 %

Resistance: 0.1 Ω -3.4 M Ω , ± 1 %

Continuity Test

Diode Test

CAT III 300 V Rated

CAT II 600 V Rated



Low cost, small sized multi-testers

5XL

- Good value, general purpose meter
- 6 functions/18 ranges
- Large 17mm (.67") display
- 2000-count

DC Voltage: 0.1 mV-1000 V, $\pm 0.8\%$

AC Voltage: 0.1 V-500 V, $\pm 1.2\%$

DC Current: 0.1 mA-200 mA, $\pm 1.7\%$

Resistance: 0.1 Ω -2 M Ω , $\pm 1.2\%$

Diode Test and Continuity Beeper

CAT II 1000 V Rated



10XL

- Unique voltage Safety Tester™
- 7 functions/22 ranges
- + 6 range volt tester

• Large 17 mm (.67") display

• 2000-count

DC Voltage: 0.1 mV-1000 V, $\pm 0.7\%$

AC Voltage: 0.1-750 V, $\pm 1.0\%$

DC Current: 0.1 μ A-10 A, $\pm 1.0\%$

Resistance: 0.1 Ω -20 M Ω , $\pm 1.0\%$

Safety Tester: 6, 12, 24, 50, 110, 220 V

Diode Test and Continuity Beeper

CAT II 1000 V Rated



15XL

- Full AC/DC DMM with logic test
- Most popular XL model
- 8 functions/30 ranges
- 2000-count

DC Voltage: 0.1 mV-1000 V, $\pm 0.5\%$

AC Voltage: 0.1 mV-750 V, $\pm 1.0\%$

DC Current: 0.1 μ A-10 A, $\pm 1.0\%$

AC Current: 0.1 μ A-10 A, $\pm 1.5\%$

Resistance: 0.1 Ω -2000 M Ω , $\pm 1.0\%$

Logic: TTL, up to 20 MHz, pulse width > 25 ns

Diode Test and Continuity Beeper

CAT II 1000 V Rated



16XL

- Troubleshoot electronics
- Most functions in XL series
- 10 functions/32 ranges
- Data hold
- 2000 count

DC Voltage: 0.1 mV-600 V, $\pm 0.5\%$

AC Voltage: 0.1 mV-600 V, $\pm 1.0\%$

DC Current: 0.01 mA-10 A, $\pm 1.0\%$

AC Current: 0.01 mA-10 A, $\pm 1.5\%$

Resistance: 0.1 Ω -20 M Ω , $\pm 1.0\%$

Logic: TTL, up to 20 MHz,
pulse width > 25 ns

Capacitance: 100 pF-2 μ F

Frequency Counter: to 15 MHz

Transistor Test: NPN, PNP

Diode Test and Continuity Beeper

CAT III 600 V Rated



XL Series

35XL

- General purpose autoranger
- 8 functions/26 ranges
- Large digital and analog bargraph display
- Long 1000 hour battery life
- Auto-off preserves batteries
- Data hold
- Capacitance
- 3200-count

DC Voltage: 0.1 mV-600 V, $\pm 0.5\%$

AC Voltage: 10 mV-600 V, $\pm 2.0\%$

DC Current: 0.1 μ A-10 A, $\pm 2.5\%$

AC Current: 0.1 mA-10 A, $\pm 3.5\%$

Resistance: 0.1 Ω -32 M Ω , $\pm 1.5\%$

Capacitance: 10 pF-32,000 μ F, $\pm 5.0\%$

Diode Test and Continuity Beeper

CAT III 600 V Rated



23XT

- DMM and thermometer in one
- Unique voltage Safety Tester™
- 10 functions/28 ranges
+ 4 volt tester ranges
- Data hold
- 2000-count

DC Voltage: 0.1 mV-1000 V, $\pm 0.5\%$

AC Voltage: 0.1 mV-750 V, $\pm 1.0\%$

DC Current: 0.1 μ A-10 A, $\pm 1.0\%$

AC Current: 0.1 μ A-10 A, $\pm 1.5\%$

Resistance: 0.1 Ω -2000 M Ω , $\pm 1.0\%$

Temperature: -20°-750 °C (-4°-1400 °F),
 $\pm 3.0\%$

Transistor: NPN, PNP

Logic: TTL, CMOS

Safety Tester: 50, 110, 220, 440 V AC

Diode Test and Continuity Beeper

CAT II 1000 V, CAT III 600 V Rated



25XT

- Capacitance meter and DMM in one
- 11 functions/32 ranges
- Zero adjust knob
- Data hold
- 2000-count

DC Voltage: 0.1 mV-1000 V, $\pm 0.5\%$

AC Voltage: 0.1 mV-750 V, $\pm 1.0\%$

DC Current: 0.1 μ A-10 A, $\pm 1.0\%$

AC Current: 0.1 μ A-10 A, $\pm 1.5\%$

Resistance: 0.1 Ω -20 M Ω , $\pm 1.0\%$

Capacitance: 0.1 pF-20,000 μ F, $\pm 2.0\%$

Frequency: 40 kHz

Transistor Test: NPN, PNP

Logic: TTL, CMOS

Diode Test and Continuity Beeper

CAT II 1000 V, CAT III 600 V Rated



27XT

- DMM and LCR in one
- Most functions for testing electronics
- 11 functions/32 ranges
- Only meter with inductance
- Max hold
- 2000-count

DC Voltage: 0.1 mV-1000 V, $\pm 0.5\%$

AC Voltage: 0.1 mV-750 V, $\pm 1.0\%$

DC Current: 0.1 μ A-20 A, $\pm 1.0\%$

AC Current: 0.1 μ A-20 A, $\pm 1.5\%$

Resistance: 0.1 Ω -2000 M Ω , $\pm 1.0\%$

Inductance: 1 mH-20 H, $\pm 5.0\%$

Capacitance: 1 pF-2,000 μ F, $\pm 5.0\%$

Frequency: 20 MHz

Logic: TTL, CMOS

Diode Test and Continuity Beeper

CAT II 1000 V, CAT III 600 V Rated



28XT

- Best value for HVAC/R, building or plant maintenance
- 10 functions/32 ranges including temperature
- 2000-count
- Data hold and max hold

DC Voltage: 0.1 mV-1000 V, $\pm 0.5\%$

AC Voltage: 0.1 mV-750 V, $\pm 1.0\%$

DC Current: 0.1 μ A-20, $\pm 1.0\%$

AC Current: 0.1 μ A-20, $\pm 1.5\%$

Resistance: 0.1 Ω -20 M Ω , $\pm 1.0\%$

Capacitance: 1 pF-20,000 μ F $\pm 2.0\%$

Temperature: -30°-1300 °C (-22°-2000 °F), $\pm 1.0\%$

Frequency: 20 kHz

Diode Test and Continuity Beeper

CAT II 1000 V Rated, CAT III 600 V Rated



85XT

True-rms

- True-rms
- Highest accuracy/highest resolution
- 8 functions/32 ranges
- Data hold
- 20,000-count

DC Voltage: .01 mV-1000 V, $\pm .05\%$

AC Voltage: .01 mV-750 V, $\pm 1.0\%$

DC Current: .01 μ A-20 A, $\pm 0.5\%$

AC Current: .01 μ A-20 A, $\pm 0.8\%$

Resistance: .01 Ω -20 M Ω , $\pm 0.25\%$

Frequency: 0.1 Hz-200 kHz

Duty Cycle: 0-90 %, $\pm 2.0\%$

Continuity Test w/Beeper

Diode Test

CAT II 1000 V Rated, CAT III 600 V Rated



220

- Ideal for appliance, office equipment, medical equipment, etc., where a blend of power supplies and DC components are being diagnosed or for general purpose electronics troubleshooting
- 8 functions/27 ranges
- Patented T-shape design and oversized display
- Exclusive, best Digi-Glo™ backlight
- Max, min, rel, probe hold, and range lock modes
- Auto-power off w/disable button
- 4300-count display
- Holster included

DC Voltage: 100 μ V -1000 V, ± 0.25 %

AC Voltage: 100 μ V-750 V, ± 1.5 %

DC Current: 100 nA-10 A, ± 0.8 %

AC Current: 100 nA-10 A, ± 1.2 %

Resistance: 0.1 Ω -43 M Ω , ± 0.5 %

Logic: TTL Pulse Trap Indicator

Diode Test and Continuity Beeper

CAT II 1000 V Rated, CAT III 600 V Rated



235

- Greatest feature set and functions in an autoranger for applications in HVAC/R, plant maintenance, commercial or residential building maintenance, test bench
- Only DMM with RS232C computer output
- 11 functions/45 ranges, including temperature
- Exclusive, best “Digi-Glo” backlight
- Max, min, rel, data hold, range lock modes
- 4000-count display with bargraph
- Holster included

DC Voltage: 100 μ V-1000 V, ± 0.25 %

AC Voltage: 100 μ V-750 V, ± 1.0 %

DC Current: 100 nA-10 A, ± 0.8 %

AC Current: 100 nA-10 A, ± 1.2 %

Resistance: 0.1 Ω -40 M Ω , ± 0.8 %

Capacitance: 1 pF-40,000 μ F, ± 2.0 %

Frequency: 1 Hz-40 MHz; ± 0.1 %

Temperature: -20°-1300 °C (-4°-2300 °F), ± 2.0 %

Transistor Test: PNP, NPN

Diode Test and Continuity Beeper

Serial Output:

RS232C, PC Interface software, I/O cable included

CAT II 1000 V Rated, CAT III 600 V Rated



2015

True-rms

- Best value professional's autoranger
- 9 functions/36 ranges
- Oversized, 4000-count display w/bargraph
- True-rms measuring
- Max/min, data hold, relative (Δ) modes
- Holster Included

DC Voltage: 0.1 mV-1000 V, $\pm 0.25\%$

AC Voltage: 0.1 mV-750 V, $\pm 0.8\%$ (True-rms)

DC Current: 100 μ A-20 A, $\pm 0.8\%$

AC Current: 100 μ A-20 A, $\pm 1.2\%$ (True-rms)

Resistance: 0.1 Ω -40 M Ω , $\pm 0.7\%$

Capacitance: 1 pF-40 μ F, $\pm 1.0\%$

Frequency: 0.1 Hz-400 kHz, $\pm 0.1\%$

Diode Test and Continuity Beeper

CAT II 1000 V Rated, CAT III 600 V Rated



RMS225A

True-rms

- Professional's highest resolution 10,000-count autoranger with bargraph
- 7 functions/21 ranges
- True-rms
- Patented t-shape design and oversized display
- Exclusive, best "Digi-Glo" backlight
- Menu selectable auto max, min, rel, probe hold modes
- Holster included

DC Voltage: 0.1 mV-1000 V, $\pm 0.25\%$

AC Voltage: 1 mV-750 V, $\pm 1.5\%$

DC Current: 10 μ A-40 mA, 1 mA-10 A, $\pm 0.75\%$

AC Current: 10 μ A-40 mA, 1 mA-10 A, $\pm 1.75\%$

Resistance: 0.1 Ω -40 M Ω , $\pm 0.5\%$

Diode Test and Continuity Beeper

CAT II 1000 V Rated, CAT III 600 V Rated



Professional's DMMs

HD110/HD110T

- Completely sealed and environment proof meters
- VDC Accuracy of 0.1 %
- Superior 1500 hour battery life
- Temperature input-Model HD110T

DC Voltage: 0.1 mV-1500 V

AC Voltage: 0.1 mV-1000 V

DC Current: 0.1 μ A-2 A, 0-10 A

AC Current: 0.1 μ A-2 A, 0-10 A

Resistance: 0.1 Ω -20 M Ω

Diode Test and Continuity Beeper

HD110T same except

DC Current: 0.1 μ A-200 mA, 0-10 A

Temperature: -4 °F-1999 °F



HD110B

IP67 & MIL Certified

- Best DMM for electrical and industrial field work
- Most rugged DMM available
- Special sealing for environment and water proofing. IP67 and MIL-PRF 28800F rated
- Drop-proof special housing and PCB mounting
- Extra fusing and protection from accidental overloads
- Highest voltage measuring to 1500VDC and 1000VAC
- Oversized, shock mounted LC display
- Auto-power off
- Unique live voltage Safety Tester™
- Holster included

DC Voltage: 0.1 mV-1500 V, ± 0.1 %

AC Voltage: 0.1 mV-1000 V, ± 0.75 %

DC Current: 0.1 μ A-10 A, ± 0.35 %

AC Current: 0.1 μ A-10 A, ± 0.9 %

Resistance: 0.1 Ω -20 M Ω , ± 0.5 %

Safety Tester: 24, 50, 120, 240, 480 V AC

Diode Test and Continuity Beeper

CAT III 1000 V Rated



HD115B

IP67 & MIL Certified

- Enhanced feature version of HD110B
- Includes all of HD110B plus:
 - Six capacitance measuring ranges
 - Button selectable Max/Min, AC peak and probe hold
 - Exclusive, best “Digi-Glo” backlight

Capacitance: 1 pF-20,000 μ F, ± 2.0 %
CAT III 1000 V Rated



HD160B

True-rms IP67

- Heavy-duty, rugged autoranger
- 10,000-count w/bargraph
- True-rms measuring
- Special sealing for environment and water proofing. IP67 and MIL-SPF-28800F rated
- Drop-proof special housing and PCB mounting
- Extra fusing and protection from accidental overloads
- Highest voltage measuring to 1500 VDC and 1000 VAC
- Unique live voltage Safety Tester™
- Exclusive, best “Digi-Glo” backlight
- Menu selectable auto max, min, rel, probe hold modes
- Holster included

DC Voltage: 10 μ V-1500 V, ± 0.1 %

AC Voltage: 1 mV-1000 V, ± 1.5 %

DC Current: 10 μ A-40 mA, 1 mA-10 A, ± 0.75 %

AC Current: 10 μ A-40 mA, 1 mA-10 A, ± 1.75 %

Resistance: 1 Ω -40 M Ω

Safety Tester: 24, 50, 120, 240, 480 V AC

Diode Test and Continuity Beeper

CAT III 1000 V Rated



Heavy-duty DMMS



Whether you know them as clamp-arounds, clamp-meters, or amp-clamps, the familiar clamp style meter continues to be a popular choice of electrical professionals everywhere. These products combine the "CT" or "amp-clamp" head directly with a meter readout to save money and increase the convenience over using separate

Clamp-Around Meters and Amp Clamps



measuring devices. This non-invasive method, whether an AC-transformer or a Hall-Effect Transducer needed for DC/AC measuring, allows for quicker, safer current measuring without disrupting circuitry or service.

AC38

- Good value, general purpose AC-DMM 400 A
 - 3 functions/5 ranges
 - Data hold button
 - 2000-count
 - Carrying case included
- AC Current:** 0.1 A-400 A, $\pm 1.5\%$
AC Voltage: 0.1 V-750 V, $\pm 1.2\%$
Continuity Test
Maximum Conductor Size: 25mm (1.0")
Not for sale in EC



AC40A

- Mini-clamp DMM
 - 400 A range
 - 600 V AC and DC range
 - 4000-count display w/bargraph
 - mA resolution in 40 A range
 - Autoranging
 - Data hold
 - Auto-off
- AC Current:** 10 mA-400 A, $\pm 2.0\%$
AC Voltage: 0.1 V-600 V, $\pm 1.5\%$
DC Voltage: 0.1 V-600 V, $\pm 1.2\%$
Resistance: 0.1 Ω -400 Ω
Continuity Test
Max Conductor Size: 25.4mm (1.0")
CAT III 600 V Rated



AD40A

- Low cost mini-clamp digital ammeter
 - 400A AC range
 - 4000-count display w/bargraph
 - mA resolution in 40 A range
 - Autoranging
 - Data hold
 - Auto-off
- AC Current:** 10 mA-400 A, $\pm 2.0\%$
Maximum Conductor Size: 25.4 mm (1.0")
CAT III 600 V Rated



AC60

- Professional's 600A, AC-DMM
- Autoranging
- Data hold button
- 4000-count
- Carrying case included

AC Current: 100 mA-600 A, $\pm 1.9\%$

AC Voltage: 0.1 V-600 V, $\pm 1.2\%$

Resistance: 1 Ω -40 k Ω , $\pm 2.0\%$

Continuity Test

Max Conductor Size: 1.57" (40mm)

CAT II 600 V Rated, CAT III 300 V Rated



AC65

True-rms

- True-rms reading
- Professional's 600 A, AC-DMM
- Autoranging
- Data hold button
- 4000-count
- Carrying case included

AC Current: 100 mA-600 A, $\pm 1.9\%$ (True-rms)

AC Voltage: 0.1 V-600 V, $\pm 1.2\%$ (True-rms)

Resistance: 1 Ω -40 k Ω , $\pm 2.0\%$

Continuity Test

Max Conductor Size: 1.57" (40 mm)

CAT II 600 V Rated, CAT III 300 V Rated



AC68

- Top-of-the-line professional clamp DMM
- 8 functions/11 ranges
- AC and DC
- Data and AC peak hold
- DC auto zero
- 4000-count
- Carrying case included

AC Current: 100 mA-600 A, $\pm 2.0\%$

DC Current: 100 mA-600 A, $\pm 2.0\%$

AC Voltage: 0.1 V-600 V, $\pm 1.2\%$

DC Voltage: 0.1 V-600 V, $\pm 0.75\%$

Resistance: 1 Ω -4 k Ω , $\pm 1.0\%$

Frequency: 1 Hz-20 kHz

Diode Test and Continuity Beeper

Max Conductor Size: 40 mm (1.57")

CAT III 600 V Rated



AD105

True-rms

- Broad range 1000A, AC and DC ammeter
- True-rms
- Peak hold and DC auto zero
- Autoranging
- 4000-count
- Belt-clip sleeve case included

AC Current: 100 mA-1000 A, $\pm 1.9\%$

DC Current: 100 mA-1000 A, $\pm 2.9\%$

Frequency: 1 Hz-10 kHz, $\pm 0.5\%$

Max Conductor Size: 51 mm (2.0")

CAT III 1000 V Rated



CT231A

- AC current clamp, 200 A
- Input Range:** 2-200 A
Output Type: mA
Conductor Size: 11.4 mm (0.45")



CT235

- AC/DC current clamp, 1000 A
- Input Range:** 2-1000 A
Output Type: mV
Conductor Size: 31 mm (1.22")



CT237


- AC/DC current clamp, 200 A
- Input Range:** 500 mA-200 A
Output Type: mV
Conductor Size: 19 mm (0.748")



CT238


- AC/DC current clamp, 20 A
 - Special "Low Current" version
- Input Range:** 10 mA-20 A
Output Type: mV
Conductor Size: 19 mm (0.748")





Check, test, sort and verify electronic components quickly and easily with these portable meters. They offer broader ranges and specific features over general purpose multimeters, and are equally at home on the test bench, QC station, incoming inspection test, or electronics production line. Large displays and annunciators ensure quick, accurate readings, by all users.

Hand-Held Portable Component Testers



The SF10 brush probe quickly sweeps large area for continuity on a printed circuit board.

CR50

- Sort, match, QC inspect, and verify components, check circuits with this full range capacitance and resistance meter
- Dual zero adjustment pots to null strays and test leads
- Special “Low Ohms” range
- Oversized, read-at-a-glance display
- Premium test leads w/alligator clips

Resistance: 0.01 Ω -20 M Ω , ± 1.0 %

Capacitance: 0.1 pF- 20,000 μ F, ± 0.5 %

Diode and Continuity Test



LCR55

- The ultimate component checker measures inductance, capacitance, resistance, transistors, diodes and microwave diodes
- Plug-in test slots and test leads
- Oversized, read-at-a-glance display
- Data hold and max hold
- Auto-off

Resistance: 0.01 Ω -20 M Ω , ± 0.5 %

Capacitance: 0.1 pF-2000 μ F, ± 1.0 %

Inductance: 0.1 μ H-200 H, ± 5.0 %

Transistors: Hfe, Ico (NPN, PNP)

Diodes: Std (3 V) and Microwave Oven (8 V)

Continuity Test



LP10A/LP25A

- Pen-size logic probes
- Troubleshoot and analyze digital logic circuits

LP10A: Good Value for Most Common Circuits

Detects Pulses > 30 ns up to 17 MHz, TTL, CMOS Levels and Dual LEDs Indicate Hi/Lo State

LP25A: Better Unit Tests More Detects

Pulses > 30 ns up to 25 MHz, TTL, CMOS, DTL, RTL, NMOS, MOS Logic Dual LEDs and Tone Indicate Hi/Lo State



SF10

- Fastest method of finding shorts and continuity on PCBs
- Brush probe quickly pinpoints area of shorts in printed circuit cards, multi-conductor cables, mass termination systems, backplanes, connectors, IC sockets and more
- Low-test voltage protects sensitive circuitry and eliminates false continuity indications
- Patented circuitry saves time with rapid testing for shorts

Output Voltage: 0.5 vDC

Max Current: 100 μ A

Continuity Threshold: 10 ohms

Brush Material: Stainless Steel

Dimensions: 8.4" (L) x 1.3" (W) x 1" (H) 213.2mm (L)

x 33.7mm (W) x 25.2mm (H)





When your applications are best suited to bench-top style meters, look to Wavetek Meterman for solutions. For depot service benches, design engineer's benches, production or QC benches, school labs and more, Wavetek Meterman offers three different low cost/high feature test instruments. Select from DMM and Function Generators. All are housed in an attractive custom case with a cushion grip, non-skid, tilt-stand handle, rear power cord wrap, and grooved channels to allow stacking.

Bench-Top Instruments



FG2C

- 3MHz function generator
- High feature, low cost
- Easy push-button selection for power, range and waveform
- Square, triangle, sine wave and TTL/CMOS outputs
- Duty cycle and DC offset control VCF input
- Includes test cables and spare fuses



Range: 0.3 Hz to 3 MHz, $\pm 5\%$ of full-scale

Main Output: > 20 Vp-p open circuit, > 10 Vp-p into 50 Ω load

DC Offset Control: -10 V to +10 V(open)/-5 V to +5 V (50 Ω load)

Duty Cycle: 80 % : 20 % : 80 % Cont. Variable

VCF Input: (0 V to ± 10 V) ± 1 V input for 100:1 ratio

Input Impedance: 10 k Ω $\pm 10\%$

Note: Also available in 220 V version as FG2CE

FG3C

- 3 MHz sweep/function generator
- Built-in, 6 digit display
- 150 MHz frequency counter
- Best value combination generator
- Square, triangle, sine wave and TTL/CMOS outputs
- Amplitude or frequency modulation
- Linear and logarithmic sweep modes
- Duty cycle, VCF and DC offset control
- Includes test cables and spare fuses



Range: 0.3 Hz to 3 MHz, $\pm 5\%$ of full-scale

Main Output: 0.3 Hz-3.0 MHz, > 20 Vp-p open circuit, > 10 Vp-p into a 50 Ω load

DC Offset Control: -10 V to +10 V(open)/-5 V to +5 V (50 Ω load)

Duty Cycle: 1:1 to 10:1 continuously variable

VCF Input: (0 V to ± 10 V) ± 1 V input for 100:1 ratio

Input Impedance: 10 k Ω , $\pm 5\%$

Note: Also available in 220 V version as FG3CE

BDM40

True-rms

- True-rms, 4-1/2 digit, 20,000 count benchtop DMM
- AC or AC + DC input coupling
- High accuracy, basic VDC 0.03 %
- Easy-to-read 0.5" LED display
- Interlocking push-button control for easy selection



CAT III 1000 V Rated

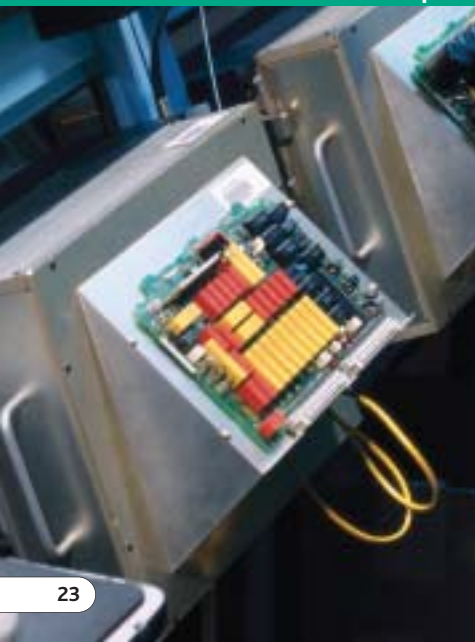
Note: Also available in 220 V version as BDM40E



Light illumination levels are easily measured with the Meterman LM631 Digital Light Meter. This value-priced unit offers high-resolution readings and adherence to published standards for human eye response to illuminance.

Whether measuring temperature or light, Meterman has a variety of solutions. Our IR610 infrared thermometer helps you measure temperature in remote, difficult and dangerous locations. Our Model TM45 dedicated thermometer lets you use a Type K thermocouple to measure temperature

Temperature and Light



with more than a half a dozen probes designed for your application. And finally, the Meterman TC253A adapter enables your DMM use any Type K thermocouple.

Infrared, dedicated or DMM, Meterman has a temperature and light measurement solution for you.

TM45

- Ideal for HVAC/R contractor, plant maintenance, commercial building service
- Unique, mini-stick design thermometer
- Small, go-anywhere size
- Type K thermocouple compatible
- °F/ °C and 1°/0.1° selectable
- Data and max hold
- Type K bead probe and carry case w/belt loop included

1 °F Range: -58 to 1999; $\pm 0.3\%$ $\pm 2\text{ °F}$

0.1 °F Range: -58.0 to 199.9; $\pm 0.3\%$ $\pm 2\text{ °F}$

1 °C Range: -50 to 1300; $\pm 0.3\%$ $\pm 1\text{ °C}$

0.1 °C Range: -50.0 to 199.9; $\pm 0.3\%$ $\pm 1\text{ °C}$



TC253A

- Adds thermometer function to DMM
- °C / °F switchable
- Uses type K thermocouple sensor
- Includes TP255 bead probe

Range: -50 °C to 1000 °C

Range: -58 °F to 1832 °F

Output: 1 mV/°



Temperature and light

IR610 Infrared Thermometer

- Laser pointer for accurate targeting
- Measures to 500 °F (260 °C), front panel switchable
- Narrow 10:1 field of view measures 1" at 10" distance
- Fixed emissivity at 0.95
- Certified to meet CE EN60825 Class II for laser safety
- Data hold, low battery indicator
- Auto Power Off
- Large 3-1/2 digit display with backlight feature
- Case is rugged valox plastic in ergonomic design for holding ease
- Battery hatch cover to easily replace batteries
- Shipped with carrying case, four AAA batteries installed and operator's guide



LM631 Digital Light Meter

- Measures wide range of light up to 20,000 fc or lux, front panel switchable
- Accurate, high resolution of 0.01 fc/lux
- Sensor dome has 45" attached cord for measurement flexibility
- Built-in CIE spectrum curve for accurate human eye response
- Peak hold and data hold
- Large 3-1/2 digit display with backlight feature
- Meets CE EN61326-1 certification for safety ratings
- Analog output for monitoring and charting
- Case is rugged valox plastic in ergonomic design for holding ease
- Battery hatch cover to easily replace batteries
- Shipped with carrying case, extra lens cover, four AAA batteries installed and manual



TP255, TP254

TP255

- Low cost, general purpose bead probe
- 200 °C/392 °F



TP254

- Higher temperature immersion probe
- Built on handle
- 1100 °C/2012 °F

MH101K, TP110K, TP120K, TP130K

MH101K

- Master probe handle for tips below
- Concept saves money when
 - two or more tip styles are used
 - replace only tips if damaged
- 5:1 expandable coiled extension wire



TP110K

- Immersion probe tip
- 650 °C/1200 °F
- Use with MH101K handle



TP120K

- Surface probe tip
- Specially designed to get true surface temperatures
- 650 °C/1200 °F
- Use with MH101K handle

TP130K

- Air/Gas probe tip
- Specially designed with radiation sheath
- 650 °C/1200 °F
- Use with MH101K handle



Wavetek Meterman offers a complete selection of accessories to protect your tools and keep them operating. From standard replacements to deluxe kits, there are test leads which fit Wavetek Meterman and most other brands of DMMs. An array of attractive and functional carrying cases and rubber holsters protect your DMM as well as keep test leads and meters together.

Test Leads and Accessories

Carrying Cases

DC205B

- Leather grained, heavy duty case
- Impact resistant for tough environments
- Allows use of meter while still in case



DC207B

- Leather grained, heavy duty case
- Impact resistant for tough environments
- Allows use of meter while still in case
- Extra compartment to store current clamp



VC11

- Padded vinyl carrying case
- Velcro closure
- Designed for DM73B and leads



VC12

- Padded vinyl carrying case
- Velcro closure
- See Accessory Chart for Meters



VC30

- Padded vinyl carrying case
- Velcro closure
- See Accessory Chart for Meters



VC221A

- Padded vinyl carrying case
- Velcro closure
- See Accessory Chart for Meters



Special Probes

HV231-10

- High voltage probe
- Extended voltage measuring to 40kV
- Use with standard multimeters with 10Mohm input impedance

Note: HV probe for 22 MΩ input is available, HV231-22



RF241

- Radio frequency probe
- Measures 100kHz to 650MHz
- 50 volt RMS maximum input
- Includes mini-gripper and insulation piercing tips



Protective Holsters

H10Y

- Protective rubber holster
- Includes tilt stand

H30Y

- Protective rubber holster
- Accommodates tilt stand on meter



See accessory chart for meters

Note: All Meterman meters have replacement holsters available. See Service Center for more information.

Test Leads

RTL20

- 40" PVC insulated lead wires with insulated probe tips
- Shrouded 90° banana plugs
- One red and one black



RTL25

- 30" PVC insulated lead wires with insulated probe tips
- Non-shrouded 90° banana plugs
- One red and one black



TL244

- 48" heavy duty test lead wire with Ever-sharp probe tips that accept screw-on alligator clips (AL244)
- Shrouded 90° banana plugs
- One red and one black



AL244

- Screw-on alligator clips
- For use with TL244
- One red and one black



TL245

- 36" PVC insulated lead wires
- Shrouded 90° banana plugs
- One red and one black



TL246B

- 48" silicone insulated lead wires with 0.5" jaw, heavy duty alligator clips
- Shrouded 90° banana plugs
- One red and one black



Test Leads cont.

TL35A

- 40" PVC insulated lead wires with probe tips threaded to accept the detachable, included alligator clips
- CE approved alligator clips, 0.6" jaw
- Shrouded 90° banana plugs
- One red and one black leads and clips



TL36

- 40" PVC insulated lead wires with probe tips threaded to accept the detachable, included alligator clips
- CE approved alligator clips, 0.4" jaw
- Shrouded 90° banana plugs
- One red and one black leads and clips



TL73B

- Replacement black lead for DM73B
- 40" PVC insulated wire with probe tip threaded to accept the detachable alligator clip
- CE approved alligator clip, 0.4" jaw
- Shrouded 90° banana plug



TP73B

- Replacement probe tip for DM73B meter
- 0.5" probe tip length



Test Lead Kits

DL243C

- Test Lead Kit
- Silicon lead wires, 48" long, red and black
- Standard probe tips, red and black
- Alligator clips, red and black
- Spade lugs, red and black
- Carry case with pockets and velcro closure
- EN61010-2-031 CE Safety Approved



DL248C

- Deluxe Test Lead Kit
- Silicon lead wires, 48" long, red and black
- Standard probe tips, red and black
- Alligator clips, red and black
- Spade lugs, red and black
- Spring loaded crimp tips, red and black
- Red tip length extender
- Carry case with pockets and velcro closure
- EN61010-2-031 CE Safety Approved



Replacement Parts for Test Lead Kits

TL911

- 48" high quality silicone-insulated lead wires
- One red and one black



TL912

- Standard probe tips with 0.5" probe tip length
- One red and one black



TL913

- Crimp-style spring probe tips
- One red and one black



TL914

- Probe extender, 3" longer
- One red and one black



Replacement Parts for Test Lead Kits

TL915

- Insulated alligator clips
- 0.4" jaw opening
- One red and one black



TL916

- Spade lugs
- One red and one black



Fuses

Meter Model #	Fuse Requirements
2015	P/N 1561589: 500 mA 250 V P/N 1561646: 20 A 600 V
RMS225A	P/N 1561610: 250 mA 500 V P/N 1565777: 15 A 600 V
220, 235	P/N 1561622: 500 mA 500 V P/N 1565777: 15 A 600 V
85XT	P/N 1561577: 500 mA 250 V P/N 1561589: 500 mA 250 V P/N 1561646: 20 A 600 V
320B, HD110, HD110T, HD110B	P/N 1561592: 2 A 600 V P/N 1565777: 15 A 600 V
HB115B	P/N 1561550: 100 mA 250 V (cap) P/N 1561592: 2 A 600 V P/N 1565777: 15 A 600 V
HD160B	P/N 1561610: 250 mA 500 V P/N 1561646: 20 A 600 V
DM2, 5XL, DM9	P/N 1561577: 500 mA 250 V
10XL, 15XL, 23XT	P/N 1561577: 500 mA 250 V P/N 1561646: 20 A 600 V
16XL, 35XL	P/N 1561550: (cap), 100 mA 250 V P/N 1561577: 500 mA 250 V P/N 1561646: 20 A 600 V
CR50, LCR55	P/N 1561550: (cap) 100 mA 250 V
AM8, DM7	P/N 1561561: 200 mA 250 V
25XT	P/N 1561550: 100 mA 250 V P/N 1561631: 10 A 600 V
27XT	P/N 1561577: 500 A 250 V P/N 1561646: 20 A 600 V
28XT	P/N 1561550: 100 mA 250 V P/N 1561646: 20 A 600 V

International Safety Standards for Digital Multimeters

Test equipment must be designed to protect people who work in the high-voltage, high-current environment. Transients that ride on top of power sources can trigger a sequence of events that may lead to serious injury.

The International Electrotechnical Commission (IEC) develops international general standards for safety of electrical equipment for measurement, control and laboratory use. The most current standard issued by IEC is 61010.

IEC 61010 specifies overvoltage categories for an electrical distribution system based on the distance from the power source and the natural damping of transient energy as it travels through the system. As you move closer to the power source you enter a higher Category rating area and a higher level of user protection from your test equipment is required.

Proposed Energy Regions*

CAT I

Electronics, signal level

CAT II

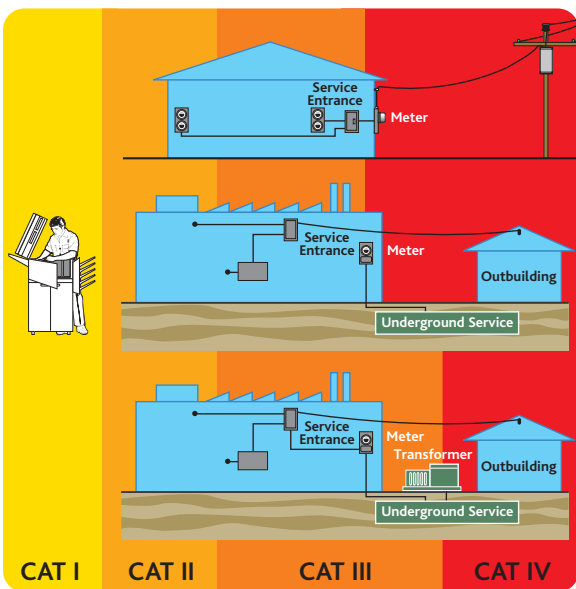
Appliances, portable tools, single-phase receptacle loads

CAT III

Three-phase distribution, large building lighting systems, distribution panel devices

CAT IV

Three-phase at utility connection, electricity meters, outside and service entrance



Wavetek Meterman® recommends only using test equipment in environments below or up to its Category rating, never in a Category above the instrument's rating.

*Category Ratings per IEC1010-1. Category boundaries may not be exact.

EN61010-1 category and voltage ratings on multimeter products

EN61010-1 and voltage ratings

Multimeters	CAT I	CAT II	CAT III
220		to 1000 V	to 600 V
235		to 1000 V	to 600 V
2015		to 1000 V	to 600 V
5XL		to 1000 V	
10XL		to 1000 V	
15XL		to 1000 V	
16XL			to 600 V
23XT		to 1000 V	to 600 V
25XT		to 1000 V	to 600 V
27XT		to 1000 V	to 600 V
28XT		to 1000 V	to 600 V
35XL			to 600 V
85XT		to 1000 V	to 600 V
AM8		to 300 V	
DM7		to 600 V	
DM73B	to 600 V	to 300 V	
DM78A	to 600 V	to 300 V	
DM9		to 600 V	
HD110B			to 1000 V
HD115B			to 1000 V
HD160B			to 1000 V
RMS225A		to 1000 V	to 600 V
Clamp Meters			
AC40A			to 600 V
AC60		to 600 V	to 300 V
AC65		to 600 V	to 300 V
AC68			to 600 V
AD105			to 1000 V
AD40A			to 600 V
Current Clamps			
CT231A			to 600 V
CT232A			to 1000 V
CT234A			to 1000 V
CT235			to 300 V
CT236			to 1000 V
CT237			to 300 V
CT238			to 300 V
Bench Top Meter			
BDM40			to 1000 V

The DM2 and AC38 have not been rated for EN61010-1.

All of the products shown in this catalog are CE marked and for sale in the EC except: DM2, AC38, TP probes, RTL20, RTL25, TL244, AL244, TL246B.





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Specifications subject to change without notice.

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The right tool for the job.SM

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