
XL Series

3¹/₂ Digit, Large Character Display, Small-Size, Low-Cost DMMs

- ◆ *Low-Cost Family*
- ◆ *Large 17mm (0.67in.) High Digits*
- ◆ *Reliable and Rugged for Field Service*
- ◆ *Fused Current Inputs*
- ◆ *User Safety Features*
- ◆ *Low Current Ranges*
- ◆ *Unique Safety Tester (DM10XL)*
- ◆ *Data Hold (DM16XL)*

The DM5XL, DM10XL, DM15XL, and DM16XL meters have the following features:

Large LCD Digits. The largest in their class for easy viewing. The 17mm (.67in) high numerals allow you to easily read your measurement values from a distance.

Incorrect Input Warning. All four meters have an incorrect input warning that indicates a test lead is plugged into a current jack, but the Function/Range switch is not

set to make a current measurement. This is a safety feature to warn the user of possible misuse of the meter.

Safety Test Leads. Safety test leads have their probe tips shrouded with insulation to expose only 3.5mm of metal for probing. This allows you to safely make measurements in those dense component areas without causing shorts with long exposed test lead tips.

In addition to these features, each model has a distinctive set of additional features.

DM5XL. Full-function, full-performance digital multimeter, the DM5XL offers a high speed continuity beeper, fused DC current to 200mA, DC voltage to 1000V, AC voltage to 500V, resistance to 2M Ω , and diode testing.

DM10XL. Full-function, full-performance digital multimeter that offers the Safety Tester™ feature. The Safety Tester detects and displays the presence of particular AC or DC voltage (positive or negative) levels through a series of LEDs. The Safety Tester™ is useful in low-light situations when it is necessary to confirm the existence of a voltage. This feature does not

use the meter's internal battery, so you can always detect live voltage levels even if your DMM battery is dead. The DM10XL also has a high-speed continuity beeper, fused DC current to 10A, DC voltage to 1000V, AC voltage to 750V, resistance to 20M Ω , and diode testing.

DM15XL. Full-function, full-performance digital multimeter that offers a Logic Tester feature. It detects and displays the presence of TTL pulses up to 20MHz. The DM15XL also has a high-speed continuity beeper, fused AC and DC current to 10A, DC voltage to 1000V, AC voltage to 750V, wide resistance range to 2000M Ω , and diode testing.

DM16XL. The most functions, eleven in all, in our XL line. When you want the most features in the smallest of packages, select the DM16XL. In addition to volts, ohms, and amps, this meter includes capacitance, transistor, logic test, frequency counter to 15 MHz, diode test, and continuity test. A full-function DMM and Component Tester in one. The DM16XL also includes a technician preferred "Data Hold" button.



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

MODEL	DM5XL	DM10XL	DM15XL	DM16XL
DC Voltage				
Ranges	200mV, 2V, 20V, 200V, 1000V	200mV, 2V, 20V, 200V, 1000V	200mV, 2V, 20V, 200V, 1000V	200mV, 2V, 20V, 200V, 600V
Accuracy	±0.8%rdg ±1dgt	±0.7%rdg ±1dgt	±0.5%rdg ±1dgt	±0.5%rdg ±1dgt
Resolution	100µV	100µV	100µV	100µV
Input Impedance	1MΩ	10MΩ	10MΩ	10MΩ
AC Voltage (50 - 500Hz)				
Accuracy	200mV, 2V, 20V	—	±1%rdg ±4dgt	±1%rdg ±4dgt
	200V	±1.2%rdg ±10dgt	±1%rdg ±4dgt	±1%rdg ±4dgt
	500V/750V	±1.2%rdg ±10dgt	±1.5%rdg ±4dgt	±1.5%rdg ±4dgt (600V)
Input Impedance	450kΩ	4.5MΩ	10MΩ	10MΩ
DC Current				
Ranges	200µA, 2mA, 20mA, 200mA	200µA, 2mA, 20mA, 200mA, 10A	200µA, 2mA, 20mA, 200mA, 10A	20mA, 200mA, 10A
Accuracy	200µA-200mA	±1.2%rdg ±1dgt	±1%rdg ±1dgt	±1%rdg ±1dgt
	10A	—	±2%rdg ±3dgt	±2%rdg ±3dgt
Resolution	200µA	100nA	100nA	10µA (20mA)
AC Current (50 - 500Hz)				
Ranges	—	—	200µA, 2mA, 20mA, 200mA, 10A	20mA, 200mA, 10A
Accuracy	200µA-200mA	—	±1.5%rdg ±4dgt	±1.5%rdg ±4dgt
	10A	—	±2.5%rdg ±4dgt	±2.5%rdg ±4dgt
Resistance				
Ranges	200Ω, 2kΩ, 20kΩ, 200kΩ, 2MΩ	200Ω, 2kΩ, 20kΩ, 200kΩ, 2MΩ, 20MΩ	200Ω, 2kΩ, 20kΩ, 200kΩ, 2MΩ, 20MΩ	200Ω, 2kΩ, 20kΩ, 200kΩ, 2MΩ, 20MΩ
Accuracy	200Ω	±1.2%rdg ±2dgt	±1%rdg ±3dgt	±1%rdg ±3dgt
	2k to 2MΩ	±1.2%rdg ±2dgt	±1%rdg ±1dgt	±1%rdg ±1dgt
	20MΩ	—	±3%rdg ±1dgt	±3%rdg ±1dgt
	2000MΩ	—	±5%rdg ±10dgt +10dgt	—
Diode Test Voltage/Current	1mA/3.2VDC	1mA/3.2VDC	1mA/3.2VDC	1mA/3.2VDC
Continuity Test	< 75Ω	< 75Ω	< 75Ω	< 75Ω
Safety Tester™				
Voltage Levels	—	6V, 12V, 24V, 50V, 110V, 220V	—	—
Logic Test				
Frequency Response	—	—	20MHz	20MHz
Pulse Width - minimum	—	—	25ns	25ns
Capacitance				
Ranges	—	—	—	2nF, 20nF, 200nF, 2µF, 20µF
Accuracy	—	—	—	±3.5%rdg ±4dgt
Frequency Counter				
Range	—	—	—	to 15MHz
Accuracy	—	—	—	±0.1%rdg ±2dgt
Sensitivity	—	—	—	1VRMS
Transistor h_{FE}				
Range/Type	—	—	—	0 - 1000/NPN, PNP

OVERLOAD PROTECTION

Voltage: VDC: 350VRMS/500VDC for 15s (200mV range), 600VRMS/1200VDC for 60s (DM5 all other ranges), 750VRMS/1000VDC (DM10XL, DM15XL all other ranges), 600VDC/AC RMS (DM16XL all other ranges). VAC: 350VRMS/500VDC for 30s (DM15XL, DM16XL 200mV range), 500VRMS/500VDC (DM5XL all ranges), 750VRMS/1000VDC (DM10XL, DM15XL all other ranges), 600VDC/AC RMS (DM16XL all other ranges); **Amps:** 0.5A/250V fast blow ceramic fuse (200mA), 10A/600V fast blow ceramic fuse (10A); **Continuity:** 500VDC/AC RMS; **Safety Tester™:** 350VAC RMS for one hour, 350VDC for 30s (DM10XL); **Resistance:** 500VDC/AC RMS

GENERAL

Display: 3½ digits, 1999 Counts; **Display Update Rate:** 2.5/second, nominal; **Low Battery Indication:** Symbol of battery is displayed in LCD; **Operating Temperature:** 0°C to 50°C (32°F to 122°F), 0 to 70% R.H.; **Storage Temperature:** -20°C to 60°C (13.8°F to 140°F), 0 to 80% R.H. (battery removed); **Battery Type/Life:** Standard 9V battery, NEDA 1604, JIS 006P, IEC 6F22: Alkaline/300 hours, Carbon-Zinc/200 hours; **Dimensions (H x W x D):** 15.5cm x 7.2cm x 3.2cm (6.1" x 2.8" x 1.3"); **Weight (including battery):** 226g (8 oz); **Included Accessories:** One pair test leads, one spare fuse, battery and Operator's Manual; **Warranty:** One year; **Agency Approvals:** IEC1010-1, CAT II, IEC1010-1, CAT III (DM16XL); **CE**

Carry Cases & Holster:

H10 is a combination protective rubber holster and tiltstand available as an option for models DM5XL, DM10XL, DM15XL, DM16XL, DM30XL, DM35XL and model CR50. The tilt stand allows these meters to be used on the test bench or in an upright position. The holster allows the meters to be placed in backwards for solid protection both while in use and during storage. Keep it in your tool box; throw it in your truck. The meter and holster are ready when you need them. VC20 soft case, VC30 larger softcase fits meter with holster.

