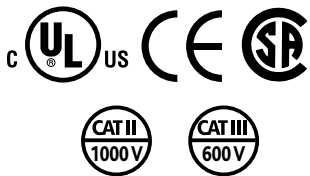


# Wavetek Meterman Auto-Ranging True RMS DMM

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## 37XR Digital Multimeter



### True RMS digital multimeter with component and logic test for troubleshooting electronics at the bench or on the job site

True RMS meter for electronics troubleshooting at the bench or job site. The highest accuracy meter in the XR series.

- Autoranging 10,000 count with 0.1 % accuracy
- LCR functions – inductance, capacitance and resistance
- Frequency, duty cycle and logic test
- Min/Max, Average, Relative, Peak, and Data Hold
- Bright blue backlight for dim environments
- Magne-Grip™ holster with magnetic hanging strap
- Auto power off to save battery life
- Separate door for easy battery and fuse access
- Three-year warranty

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

Function	Range	Accuracy
<b>Voltage</b>		
DC Voltage	1000 mV, 10 V, 100 V, 1000 V	± (0.1 % rdg + 5 dgt)
AC Voltage True RMS (45 Hz to 2 kHz)	1000 mV, 10 V, 100 V (45 Hz to 500 Hz) 1000 mV, 10 V, 100 V (500 Hz to 2 kHz) 750 V (45 Hz to 1 kHz)	± (1.2 % rdg + 10 dgts) ± (2.0 % rdg + 5 dgts) ± (2.0 % rdg + 10 dgts)
AC coupled True RMS specified from 5 % to 100 % of range		
Input Impedance	10 MΩ	
Resolution	100 μV	
<b>Current</b>		
DC Current	100 μA 1000 μA, 10 mA, 100 mA, 400 mA 10 A	± (0.5 % rdg + 10 dgt) ± (0.5 % rdg + 5 dgts) ± (1.5 % rdg + 10 dgt)
AC Current True RMS (45 Hz to 1 kHz)	100 μA, 1000 μA, 10 mA, 100 mA 400 mA 10 A	± (1.5 % rdg + 10 dgts) ± (2.0 % rdg + 10 dgts) ± (2.5 % rdg + 10 dgts)
AC coupled True RMS specified from 5 % to 100 % of range		
Resolution	0.01 μA	
<b>Resistance</b>		
	1000 Ω, 10 kΩ, 100 kΩ, 1000 kΩ 10 MΩ 40 MΩ	± (0.5 % rdg + 8 dgts) ± (1.0 % rdg + 10 dgts) ± (2.0 % rdg + 10 dgts)
Resolution	100 mΩ	
<b>Capacitance</b>		
	40 nF, 400 μF 400 nF, 4 μF, 40 μF	± (3.0 % rdg + 10 dgts) ± (3.0 % rdg + 5 dgts)
Resolution	0.01 nF	
<b>Inductance</b>		
(for values of Q ≤ 7)	4 mH, 40 mH, 400 mH, 4 H, 40 H	± (5.0 % rdg + 30 dgts)
Resolution	1 μH	
<b>Frequency</b>		
	100 Hz, 1000 Hz, 10 kHz, 100 kHz, 1000 kHz, 10 MHz	± (0.1 % rdg + 5 dgts)
Resolution	0.01 Hz	
<b>Duty Cycle</b>		
	0 to 90 %	5 V logic: ± (2.0 % rdg + 20 dgts)
Resolution	0.01 %	
<b>Frequency Range</b>		
	0 % to 10 %: 40 Hz to 990 Hz 10 % to 90 %: 40 Hz to 20 kHz	



## Specifications *cont.*

Function	Range	Accuracy
<b>Logic Test</b>		
Logic Type	TTL, CMOS	
<b>Thresholds</b>		
Logic 1 (Hi)	TTL 2.8 V $\pm$ 0.8 V, CMOS 4 V $\pm$ 1 V	
Logic 0 (Lo)	TTL 0.8 V $\pm$ 0.5 V, CMOS 2 V $\pm$ 0.5 V	
Frequency Response	20 MHz	
<b>dBm</b>		
	-13 dBm to +50 dBm (45 Hz to 5 kHz) $\pm$ (0.7 dB + 8 dgts)	
	-13 dBm to +50 dBm (5 kHz to 10 kHz) $\pm$ (2.5 dB + 8 dgts)	
Resolution	0.01 dBm	
<b>Continuity</b>		
Audible Indication	< 40 $\Omega$	
Response Time	100 ms	
<b>Diode Test</b>		
Test Current	1.0 mA (approximate)	
Open Circuit Voltage	3.0 V dc typical	
<b>Peak</b>		
AC Volts Accuracy	100 V, 750 V 1000 mV, 10 V	$\pm$ (3.0 + 200 dgts) unspecified
AC Current	1000 $\mu$ A, 10 mA, 100 mA, 400 mA, 10 A $\pm$ 100 $\mu$ A	(3.0 + 200 dgts) unspecified
<b>Overload Protection</b>		
AC/DC Voltage	1000 V dc or 750 V ac rms	
AC/DC Current	$\mu$ A/mA input: F0.5 A /1000 V fast-blow ceramic 6.3 mm x 32 mm 10 A input: F10 A /1000 V fast-blow ceramic 10 mm x 38 mm (10 A for 4 minutes maximum followed by a 12 minute cooling period)	
Resistance, Continuity, Diode Test, Inductance, Capacitance	All ranges: 1000 V dc or 750 V rms	

## General Specifications

Display (Autoranging)	4-3/4 digit LCD, 10,000 counts with 41-segment analog bar graph
Display Update Rate	2/sec, nominal
Power Battery	9 V NEDA 1604, JIS 006P, IEC 6F22
Battery Life	150 hrs typical (alkaline) frequent use of backlight will decrease battery life
Operating Temperature	0 $^{\circ}$ C to 45 $^{\circ}$ C at < 70% R.H.
Storage Temperature	-20 $^{\circ}$ C to 60 $^{\circ}$ C, 0 to 80 % R.H. with battery removed from meter
Temperature Coefficient	0.1 x (specified accuracy) per $^{\circ}$ C (0 $^{\circ}$ C to 18 $^{\circ}$ C, 28 $^{\circ}$ C to 45 $^{\circ}$ C)
Altitude	2000 m (6562 ft)
Dimensions	195 mm x 92 mm x 60 mm (7.75 in x 3.55 in x 2.4 in)
Weight (without holster, including battery)	450 g (1 lb)
Warranty	Three-year

## Included Accessories

Test leads with threaded alligator clips (TL36), 9 V battery (installed), Magne-Grip™ Holster with magnetic hanging strap, spare fuse and users manual.

## Optional Accessories

VC221A Padded Vinyl Carrying Case  
 DL248C Deluxe Test Lead Kit  
 DC205B Heavy Duty Carrying Case  
 HV231-10 High Voltage Probe  
 TP253A Temperature Converter