

**37XR-A Digital Multimeter****General Specifications**

Autoranging;	
Display:	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 °C to 45 °C at < 70 % R.H.
Storage Temperature:	-20 °C to 60 °C, 0 to 80 % R.H. with battery removed from meter;
Temperature Coefficient:	0.1 x (specified accuracy) per °C (0 °C to 18 °C , 28 °C to 45 °C)
Altitude:	2000 m (6562 ft)
Dimensions:	195 x 92 x 60 mm (7.75" x 3.55" x 2.4")
Weight:	400 gr (1 lb) without holster, including battery

Specifications (25 °C ± 5 °C, <75 % R.H. non-condensing)

Function	Range	Accuracy
DC Voltage		
Ranges	1000 mV, 10 V, 100 V, 1000 V	± (0.1 % rdg + 5 dgt)
Resolution	100 µV	
AC Voltage (45 Hz to 2 kHz) True RMS		
Ranges	1000 mV, 10 V, 100 V, 750 V	
	750 V range: 45 to 1 kHz:	± (2.0 % rdg + 10 dgts)
	All other ranges, 45 to 500 Hz:	± (1.2 % rdg + 10 dgts)
	All other ranges, 500 to 2 kHz:	± (2.0 % rdg + 10 dgts)
Resolution	100 µV	
AC coupled True RMS specified from 5 % to 100 % of range		
DC Current		
Ranges	100 µA, 1000 µA, 10 mA, 100 mA, 400 mA, 10 A	
	100 µA range:	± (0.5 % rdg + 10 dgt)
	1000 µA to 400 mA ranges:	± (0.5 % rdg + 5 dgts)
	10 A range:	± (1.5 % rdg + 10 dgt)
Resolution	0.01 µA	
AC Current (45 Hz to 1 kHz) True RMS		
Ranges	100 µA, 1000 µA, 10 mA, 100 mA, 400 mA, 10 A	
	100 µA to 100 mA ranges:	± (1.5 % rdg + 10 dgts)
	400 mA range:	± (2.0 % rdg + 10 dgts)
	10 A range:	± (2.5 % rdg + 10 dgts)
Resolution	0.01 µA	
AC coupled True RMS specified from 5 % to 100 % of range		
Resistance		
Ranges	1000Ω, 10 kΩ, 100 kΩ, 1000 kΩ, 10 MΩ, 40 MΩ	
	1000Ω to 1000 kΩ ranges:	± (0.5 % rdg + 8 dgts)
	10 MΩ range:	± (1.0 % rdg + 10 dgts)
	40 MΩ range:	± (2.0 % rdg + 10 dgts)
Capacitance		
Ranges	40 nF, 400 nF, 4 µF, 40 µF, 400 µF	
	40 nF, 400 µF ranges:	± (3.0 % rdg + 10 dgts)
	400 nF to 40 µF ranges:	± (3.0 % rdg + 5 dgts)
Resolution	0.01 nF	

Function	Range	Accuracy
Inductance		
Ranges	4 mH, 40 mH, 400 mH, 4 H, 40 H	
	For values of Q ² 7:	± (5.0 % rdg + 30 dgts)
Resolution	1 µH	
Frequency		
Ranges	100 Hz, 1000 Hz, 10 kHz, 100 kHz, 1000 kHz, 10 MHz	± (0.1 % rdg + 5 dgts)
Resolution	0.01 Hz	
Duty Cycle		
Ranges	0 to 90 %	
Accuracy	5V logic:	± (2.0 % rdg + 20 dgts)
Resolution	0.01 %	
Frequency Range	0 % to 10 %: 40 Hz to 990 kHz 10 % to 90 %: 40 Hz to 20 kHz	
Logic Test		
Logic Type	TTL, CMOS	
Thresholds	Logic 1 (Hi): TTL 2.8 V ± 0.8 V, CMOS 4 V ± 1 V Logic 0 (Lo): TTL 0.8 V ± 0.5 V, CMOS 2 V ± 0.5 V	
Frequency Response	20 MHz	
dBm		
Ranges	-13 dBm to + 50 dBm	
	45 Hz to 5 kHz:	± (0.7 dB + 8 dgts)
	5 kHz to 10 kHz:	± (2.5 dB + 8 dgts)
Resolution	0.01 dBm	
Continuity		
Audible Indication	< 40Ω	
Diode Test		
Test Current	1.0 mA (approximate)	
Open Circuit Volts	3.0 V dc typical	
Peak		
AC Volts Accuracy	100 V, 750 V ranges:	± (3.0 % + 200 dgts)
	1000 mV, 10 V ranges:	unspecified
AC Current		± (3.0 % + 200 dgts)
	100 µA range:	unspecified
Overload Protection		
AC/DC Voltage	All ranges: 1000 V dc or 750 V ac rms	
AC/DC Current	µA/mA input: F0.5 A/1000 V fast-blow ceramic (6.3 x 32 mm) 10 A input: F10 A/1000 V fast-blow ceramic (10 x 38 mm) (10 A for 4 minutes maximum followed by a 12 minute cooling period)	

Input Impedance (AC/DC) : 10 Mohms