

Data Sheet

30XR

Digital Multimeter



Digital Multimeter with VolTest™, a built-in non-contact voltage tester

The 30XR has all the basic functions for automotive, residential and education applications.

- 9 functions, 30 ranges handles most measurement needs
- Magne-Grip™ holster with magnetic hanging strap frees both hands for work
- Built-in non-contact voltage tester to 600 V ac
- 1.5 V / 9 V battery test under load
- Battery/fuse door designed for easy accessibility
- One-year warranty

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

Function	Range	Accuracy
Voltage		
DC Voltage	200 mV, 2 V, 20 V, 200 V, 600 V	± (1 % rdg + 1 dgt)
AC Voltage (45 Hz to 500 Hz)	200 mV, 2 V, 20 V, 200 V, 600 V	± (1.5 % rdg + 4 dgts)
Resolution	100 µV	
Input Impedance	10 MΩ	
Current		
DC Current	200 µA, 2 mA, 20 mA, 200 mA 10 A	± (1.5 % rdg + 1 dgt) ± (2.0 % rdg + 3 dgts)
AC Current (45 Hz to 500 Hz)	200 µA, 2 mA, 20 mA, 200 mA 10 A	± (2.0 % rdg + 4 dgts) ± (2.5 % rdg + 4 dgts)
Resolution	0.1 µA	
Voltage Burden (Max)	200 µA range: 1 mV/µA 2 mA range: 100 mV/1mA 20 mA range: 13 mV/1 mA 200 mA range: 4.6 mV/1 mA 10 A range: 40 mV/1 A	
Resistance		
	200 Ω, 2 kΩ, 20 kΩ, 200 kΩ 2 MΩ 20 MΩ	± (1.0 % rdg + 4 dgts) ± (1.5 % rdg + 4 dgts) ± (2.0 % rdg + 5 dgts)
Resolution	100 mΩ	
Open Circuit Voltage	200 Ω range: 3.0 V dc All other ranges: 0.3 V dc typical	
Continuity		
Audible Indication	75 Ω ± 25 Ω	
Response Time	100 ms	
Diode Test		
Test Current	1.0 mA (approximate)	± (1.5 % rdg + 3 dgts)
Resolution	0.001 V	
Open Circuit Voltage	3.0 V typical	
Battery Test		
	1.5 V, 9 V	± (3.5 % rdg + 2 dgts)
Resolution	1 mV, 10 mV	
Load Test Current	1.5 V range: 150 mA typical 9 V range: 5 mA typical	
Non-Contact Voltage Detector (NCV)		
AC Volts	70 V ac to 600 V ac	
Red LED and Audible Indicator		



Specifications *cont.*

Function	Range
Overload Protection	
AC/DC Voltage	400 mV range: 600 V dc or 600 V ac rms 15 sec All other ranges: 600 V dc or 600 V ac rms
AC/DC Current	uA/mA input: F 0.25 A / 600 V Min. I.R. 30 kA (6.3 mm x 32 mm) 10 A input: F 10 A / 600V, Min. I.R. 100 kA, (10 mm x 38 mm) (10 A for 4 minutes maximum followed by a 12 minute cooling period)
Resistance	600 V dc or 600 V rms
Continuity	600 V dc or 600 V ac rms

General Specifications	
Display (Manual Ranging)	3-1/2 digit LCD, 1999 counts
Display Update Rate	2.5/sec, nominal
Power Battery	9 V NEDA 1604, JIS 006P, IEC 6F22
Battery Life	200 hrs typical (carbon-zinc)
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)
Dimensions	196 mm x 92 mm x 60 mm (7.7 in x 3.5 in x 2.4 in)
Weight (without holster, incl. battery)	426 g (0.94 lb)

