

Wavetek Meterman Professional Field Service DMM

Part No 01DM33XR

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33XR Digital Multimeter



Full-featured digital multimeter with temperature and capacitance for field service technicians

The 33XR gives the contractor and field service technician all the essential measurement functions they need in a rugged package.

- Frequency to 40 MHz, temperature to 1832 °F, capacitance to 4000 µF
- Input warning tone when test leads are in wrong jack
- 1000 V/750 V dc/ac
- 10 Amps ac/dc, fully safety fused
- Resistance to 4 MΩ

- Continuity beeper
- Min/Max, Relative, Peak and Data Hold
- Auto power off to save battery life
- Separate door for easy battery and fuse access
- Magne-Grip™ Holster with magnetic hanging strap
- Manual ranging
- One-year warranty

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

Function	Range	Accuracy
Voltage		
DC Voltage	400 mV, 4 V, 40 V, 400 V, 1000 V	± (0.7 % rdg + 1 dgt)
AC Voltage	400 mV, 40 V, 400 V, 750 V (45 Hz to 500 Hz) 4 V (200 Hz to 500 Hz)	± (1.5 % rdg + 4 dgts) ± (2.0 % rdg + 4 dgts)
Resolution	100 µV	
Input Impedance	10 MΩ	
Current		
DC Current	400 µA, 4 mA, 40 mA, 300 mA 10 A range	± (1.0 % rdg + 1 dgt) ± (2.0 % rdg + 3 dgts)
AC Current (45 Hz to 500 Hz)	400 µA, 4 mA, 40 mA, 300 mA 10 A range	± (1.5 % rdg + 4 dgts) ± (2.5 % rdg + 4 dgts)
Resolution	0.1 µA	
Voltage Burden	400 µA range: 1 mV/µA 4 mA range: 100 mV/1 mA 40 mA range: 12 mV/1 mA 300 mA range: 4 mV/1 mA 10 A range: 100 mV/1 A	
Resistance	400 Ω, 40 kΩ 4 MΩ range	± (1.0 % rdg + 4 dgts) ± (1.2 % rdg + 4 dgts)
Resolution	100 mΩ	
Open Circuit Voltage	400 Ω range: 3.0 V dc All other ranges: 0.5 V dc typical	
Capacitance	4 µF range 40 µF, 400 µF ranges 4000 µF range	± (5.0 % rdg + 10 dgts) ± (5.0 % rdg + 5 dgts) ± (5.0 % rdg + 15 dgts)
Resolution	0.1 µF	
Test Voltage	< 3.0 V	
Test Frequency	10 Hz	
Input Protection	µA/mA input: 0.315 A/1000 V fast blow ceramic fuse 6.3 x 32 mm	
Temperature	-20 °C to 10 °C 10 °C to 200 °C 200 °C to 1000 °C -4 °F to 50 °F 50 °F to 400 °F 400 °F to 1832 °F	± (2.0 % rdg + 4 °C) ± (1.0 % rdg + 3 °C) ± (3.0 % rdg + 2 °C) ± (2.0 % rdg + 8 °F) ± (1.0 % rdg + 6 °F) ± (3.0 % rdg + 4 °F)
Resolution	1 °C (1 °F)	



Specifications *cont.*

Function	Range	Accuracy
Frequency		
Autoranging	4 kHz, 40 kHz, 400 kHz, 4 MHz, 40 MHz	± (0.1 % rdg + 3 dgts)
Resolution	1 Hz	
Sensitivity	10 Hz to 4 MHz: > 1.5 V ac rms 4 MHz to 40 MHz: > 2 V ac rms, < 5 V ac rms	
Min Pulse Width	> 25 ns	
Duty Cycle Limits	> 30 % and < 70 %	
Continuity		
Audible Indication	< 35 Ω	
Response Time	100 ms	
Diode Test		
Test Current	1.0 mA (approximate)	± (1.5 % rdg + 3 dgts)
Resolution	1 mV	
Open Circuit Volts	3.0 V dc typical	
Peak Hold		
AC Volts	40 V to 750 V	± (3.0 % rdg + 60 dgts)
AC Current	All ranges	± (3.0 % rdg + 60 dgts)
Response Time	> 1 ms	
Overload Protection		
AC/DC Voltage	400 mV range: 1000 V dc or 750 V ac rms 15 sec All other ranges: 1000 V dc or 750 V ac rms	
AC/DC Current	uA/mA input: 0.315 A /1000 V fast-blow ceramic (6.3 x 32 mm) 10 A input: 10 A /1000 V fast-blow ceramic (10 x 38 mm) (10 A for 4 minutes maximum followed by a 12 minute cooling period)	
Resistance	1000 V dc or 750 V ac rms	
Continuity	1000 V dc or 750 V ac rms	
Diode Test	1000 V dc or 750 V ac rms	
Capacitance	0.315 A /1000 V fast-blow ceramic fuse (6.3 x 32 mm)	
Temperature	1000 V dc or 750 V ac rms	
Frequency	1000 V dc or 750 V ac rms	

General Specifications

Display	3-3/4 digit LCD, 3999 counts with 41-segment analog bar graph
Display Update Rate	2/sec, nominal
Battery	9 V NEDA 1604, JIS 006P, IEC 6F22
Battery Life	300 hrs typical (alkaline)
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
Dimensions	196 mm x 92 mm x 60 mm (7.7 in x 3.5 in x 2.3 in)
Weight (without holster, incl. battery)	400 g (0.9 lb)

Included Accessories

Test leads with threaded alligator clips (TL36), 9 V battery (installed), Magne-Grip™ Holster with magnetic hanging strap (H2-XR), temperature adapter (XR-TA), Type K thermocouple probe (TP255), 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
TP254	High Temperature Probe

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