

Data Sheet

38XR Digital Multimeter



True RMS digital multimeter with optical PC interface designed for field troubleshooting in industrial, automation, process and plant environments

- 10,000-count with high 0.25 % accuracy
- True rms AC + DC coupled for accurate measurements
- Frequency to 10 MHz, capacitance to 400 uF, temperature to 2372 °F, type K probe included
- 4-20 mA loop current with % readout
- Min/Max, Average, Relative, Peak, and Data Hold
- Bright blue backlight for dim environments
- Auto power off to save battery life
- Magne-Grip™ holster with magnetic hanging strap
- Three-year warranty

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

Function	Range	Accuracy
Voltage		
DC Voltage	1000 mV, 10 V, 100 V, 1000 V	± (0.25 % rdg + 5 dgt)
AC Voltage True RMS (45 Hz to 2 kHz)	1000 mV, 10 V, 100 V (45 Hz to 500 Hz) ± (1.2 % rdg + 10 dgt) 1000 mV, 10 V, 100 V (500 Hz to 2 kHz) ± (2.0 % rdg + 10 dgt) 750 V (45 Hz to 1 kHz) ± (2.0 % rdg + 10 dgt)	
AC coupled True RMS specified from 5% to 100 % of range		
AC + DC Voltage (45 Hz to 2 kHz)	1000 mV, 10 V, 100 V (45 Hz to 500 Hz) ± (1.5 % rdg + 10 dgt) 1000 mV, 10 V, 100 V (500 Hz to 2 kHz) ± (2.5 % rdg + 10 dgt) 750 V (45 Hz to 1 kHz) ± (2.5 % rdg + 10 dgt)	
DC coupled True RMS specified from 5 % to 100 % of range		
Resolution	100 µV	
Input Impedance	10 MΩ	
Current		
DC Current		
Ranges	100 µA 1000 uA, 10 mA, 100 mA, 400 mA 10 A	± (0.5 % rdg + 10 dgt) ± (0.5 % rdg + 5 dgt) ± (1.5 % rdg + 10 dgt)
AC Current True RMS, AC + DC Current (45 Hz to 1 kHz)	100 µA, 1000 µA, 10 mA, 100 mA 400 mA 10 A	± (1.5 % rdg + 20 dgt) ± (2.0 % rdg + 10 dgt) ± (2.5 % rdg + 20 dgt)
AC coupled True RMS specified from 5 % to 100 % of range		
AC + DC Accuracy	100 µA, 1000 µA, 10 mA, 100 mA 400 mA 10 A	± (2.0 % rdg + 20 dgt) ± (3.0 % rdg + 20 dgt)
AC + DC: AC coupled True RMS specified from 10 % to 100 % of range		
Resolution	0.01 µA	
Resistance		
1000 Ω, 10 kΩ, 100 kΩ, 1000 kΩ	± (0.5 % rdg + 8 dgt)	
10 MΩ	± (1.0 % rdg + 10 dgt)	
40 MΩ	± (2.0 % rdg + 10 dgt)	
Resolution	100 mΩ	
Capacitance		
40 nF, 400 µF	± (3.0 % rdg + 10 dgt)	
400 nF, 4 µF, 40 µF	± (3.0 % rdg + 5 dgt)	
Resolution	0.01 nF	
Temperature		
-20 °C to 10 °C	± (2.0 % rdg + 4 °C)	
10 °C to 200 °C	± (1.0 % rdg + 3 °C)	
200 °C to 1300 °C	± (2.0 % rdg + 2 °C)	
-4 °F to 50 °F	± (2.0 % rdg + 8 °F)	
50 °F to 400 °F	± (1.0 % rdg + 6 °F)	
400 °F to 2372 °F	± (2.0 % rdg + 4 °F)	
Resolution	1 °C, 1 °F	



No waiting.

No shipping charges.



No hassle warranty

Our commitment to high-quality products and customer service is demonstrated by our industry exclusive "No Hassle" warranty. In the unlikely event that a Meterman test tool requires warranty service, any of our local dealers are authorized to replace it, on the spot.

Specifications *cont.*

Function	Range	Accuracy
Frequency	100 Hz, 1000 Hz, 10 kHz, 100 kHz, 1000 kHz, 10 MHz	± (0.1% rdg + 5 dcts)
Resolution	0.01 Hz	
Duty Cycle	0 to 90 %	5 V logic: ± (2.0% rdg + 10 dcts)
Resolution	0.01 %	
Frequency Range	0 % to 10 %: 40 Hz to 990 Hz 10 % to 90 %: 40 Hz to 20 kHz	
4 mA to 20 mA DC Current Test	0 to 100 %	± (0.5 % + 5 dcts)
Resolution	0.01 %	
dBm	-13 dBm to + 50 dBm (45 Hz to 5 kHz) ± (0.7 dB + 8 dcts) -13 dBm to + 50 dBm (5 kHz to 10 kHz) ± (2.5 dB + 8 dcts)	
Resolution	0.01 dBm	
Continuity		
Audible Indication	< 40 Ω	
Response Time	100 ms	
Diode Test		
Test Current	0.5 mA (approximate)	
Open Circuit Voltage	3.0 V dc typical	
Peak		
AC Volts Accuracy	100 V, 750 V 1000 mV, 10 V	± (3.0 + 200 dcts) unspecified
AC Current	all ranges	± (3.0 + 200 dcts)
Overload Protection		
AC/DC Voltage	1000 V dc or 750 V ac rms	all ranges
AC/DC Current	μA/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 x 38 mm	
Resistance, Continuity, Diode Test, Temperature, Capacitance, Frequency	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 °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	196 mm x 96 mm x 60 mm (7.8 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), temperature adapter (XR-TA), Type K thermocouple probe (TP255), 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
DC207B	Heavy Duty Carrying Case
HV231-10	High Voltage Probe
TP254	High Temperature Probe
38-SW	RS232 Cable and Software

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