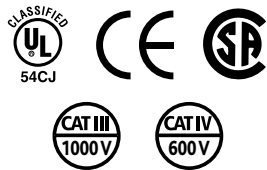


# Meterman True RMS DMM W/ Component & Logic Tester

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Part No. 01DM38XR

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


**Specifications** *cont.*

| Function   | Range  | Accuracy                          |
|--|--|-----------------------------------|
| <b>Frequency</b>   | 100 Hz, 1000 Hz, 10 kHz, 100 kHz,<br>1000 kHz, 10 MHz  | ± (0.1% rdg + 5 dgts)             |
| <b>Resolution</b>  | 0.01 Hz  |                                   |
| <b>Duty Cycle</b>  | 0 to 90 %  | 5 V logic: ± (2.0% rdg + 10 dgts) |
| <b>Resolution</b>  | 0.01 %   |                                   |
| <b>Frequency Range</b>   | 0 % to 10 %: 40 Hz to 990 Hz<br>10 % to 90 %: 40 Hz to 20 kHz  |                                   |
| <b>4 mA to 20 mA DC Current Test</b>   | 0 to 100 %   | ± (0.5 % + 5 dgts)                |
| <b>Resolution</b>  | 0.01 %   |                                   |
| <b>dBm</b>   |  |                                   |
|  | -13 dBm to +50 dBm (45 Hz to 5 kHz)  | ± (0.7 dB + 8 dgts)               |
|  | -13 dBm to +50 dBm (5 kHz to 10 kHz)   | ± (2.5 dB + 8 dgts)               |
| <b>Resolution</b>  | 0.01 dBm   |                                   |
| <b>Continuity</b>  |  |                                   |
| <b>Audible Indication</b>  | < 40 Ω   |                                   |
| <b>Response Time</b>   | 100 ms   |                                   |
| <b>Diode Test</b>  |  |                                   |
| <b>Test Current</b>  | 0.5 mA (approximate)   |                                   |
| <b>Open Circuit Voltage</b>  | 3.0 V dc typical   |                                   |
| <b>Peak</b>  |  |                                   |
| <b>AC Volts Accuracy</b>   | 100 V, 750 V<br>1000 mV, 10 V  | ± (3.0 + 200 dgts)<br>unspecified |
| <b>AC Current</b>  | all ranges   | ± (3.0 + 200 dgts)                |
| <b>Overload Protection</b>   |  |                                   |
| <b>AC/DC Voltage</b>   | 1000 V dc or 750 V ac rms  | all ranges                        |
| <b>AC/DC Current</b>   | μA/mA input: F0.5 A /1000 V fast-blow ceramic 6.3 mm x 32 mm<br>10 A input: F10 A /1000 V fast-blow ceramic 10 x 38 mm |                                   |
| <b>Resistance, Continuity, Diode Test,<br/>Temperature, Capacitance, Frequency</b> | All ranges: 1000 V dc or 750 V rms   |                                   |

**General Specifications**

|  |   |
|--|---|
| <b>Display (Autoranging)</b>                       | 4-3/4 digit LCD, 10,000 counts with 41-segment analog bar graph                 |
| <b>Display Update Rate</b>                         | 2/sec, nominal  |
| <b>Power Battery</b>                               | 9 V NEDA 1604, JIS 006P, IEC 6F22   |
| <b>Battery Life</b>                                | 150 hrs typical (alkaline) frequent use of backlight will decrease battery life |
| <b>Operating Temperature</b>                       | 0 °C to 45 °C at < 70% R.H.   |
| <b>Storage Temperature</b>                         | -20 °C to 60 °C, 0 to 80 % R.H. with battery removed from meter                 |
| <b>Temperature Coefficient</b>                     | 0.1 x (specified accuracy) per °C (0 °C to 18 °C, 28 °C to 45 °C)               |
| <b>Altitude</b>                                    | 2000 m (6562 ft)  |
| <b>Dimensions</b>                                  | 196 mm x 96 mm x 60 mm (7.8 in x 3.55 in x 2.4 in)                              |
| <b>Weight (without holster, including battery)</b> | 450 g (1 lb)  |
| <b>Warranty</b>                                    | Three-year  |