

WAJETER MODEL 220 MULTIMETER


SPECIFICATIONS

General Specifications

Display: 3-3/4 digit LCD, 4300 counts, with annunciators and menu features.

Polarity Indication: Automatic

Input overload indication: I.O.L.

Low Battery Indication: ; less than 50 hours battery life remain, accuracy is no longer guaranteed

Display Update Rate: 2/sec, nominal.

Oper. Temp: (0 - 80% R.H. non-condensing): 0°C to +50°C

Storage Temp: -20°C to 60°C, 0 to 80% R.H. non-condensing, battery removed

Temperature coefficient: 0.1 x (spec. accuracy)/°C (0°C to 18°C or 28°C to 50°C)

Fusing: 0.5A/500V; I.R. 10kA
15A/600V; I.R. 100kA

Power: Standard 9-volt battery, NEDA 1604, JIS 006P, IEC 6F22

Auto Power-Down: Meter powers down after approx. 30 minutes of inactivity or APD Display. Not in Min/Max function.

Battery Life (typical): 300 hours, alkaline.

Backlight usage consumes extra power and will decrease battery life significantly. Backlight auto-off after approx. 60 seconds.

Dimensions, without holster (H x W x D):

7.2" x 3.3" x 1.9", (183x84x47 mm)

Weight (incl. battery): 484g (17.1oz)

Accessories: Test leads, spare 0.5A/500V fuse*, battery*, and Operator's Manual

** in instrument*

Case material: Flame retardant, high-impact thermoplastic

Safety: Meets EN61010-1/CE.

Cat II - 1000V; Cat III - 600V. Pollution degree 2.

EMC: Meets EN55011 and EN61000-4-2.



EMC: This product complies with requirements of the following European Community Directives: 89/336/EEC (Electromagnetic Compatibility) and 73/23/EEC (Low Voltage) as amended by 93/68/EEC (CE Marking).

However, electrical noise or intense electromagnetic fields in the vicinity of the equipment may disturb the measurement circuit. Measuring instruments will also respond to unwanted signals that may be present within the measurement circuit. Users should exercise care and take appropriate precautions to avoid misleading results when making measurements in the presence of electronic interference.

Electrical Specifications

*Accuracies at 23°C ±5°C, <80%RH
non-condensing, guaranteed for one year*

DC Volts

Ranges: 430mV, 4.3, 43, 430, 1000V
Resolution: 100µV in 430mV range
Accuracy: All Ranges ±(0.25% rdg +2dgt)
Input Impedance: 10MΩ
CMRR: >120dB up to 1000V
NMRR: >60dB at 50 or 60Hz
OL Protection: 1000VDC or Peak AC

AC Volts

Ranges: 430mV, 4.3, 43, 430, 750V
Accuracy (%rdg + dgt)
430mV Rng @ 45-100Hz: ±(1.5% +4)
4.3-430V Rng @ 45-500Hz: ±(1.0% +4)
750V Rng @ 45-60Hz: ±(1.0% +4)
4.3-43V Rng @ 500Hz-5kHz: ±(2.0% +5)
430V Rng @ 500Hz-2kHz: ±(2.0% +5)
750V Rng @ 60-500Hz: ±(2.0% +5).
Resolution: 430mV Rng 100µV
Input Impedance: 10MΩ shunted by <100pF
Conversion Type: Average Sensing/RMS
Display
OL Protection: 1000VDC/750Vrms

DC Current

Ranges: 430µA, 43mA, 430mA, 10A
Resolution: 100nA in 430µA range
Accuracy: 430µA-430mA rng
±(0.8%rdg+2dgt)
10A rng ±(2.0%rdg+3dgt)
Burden Voltage: 430µA-43mA rng:
500mVDC; 430mA rng: 1.0VDC; 10A
rng: 500mVDC
OL Protection: mA input - F0.5A/500V,
10kA IR ceramic fast blow fuse, size:
6.35X32mm; 10A input - F15A/600V,
100kA IR ceramic fast blow fuse, size:
10x38mm, UL Listed

AC Current (45Hz-1kHz)

Ranges: 430µA, 43mA, 430mA, 10A
Resolution: 100nA in 430µA range
Accuracy:
430µA-430mA: ±(1.2%rdg+4dgt)
10A input ±(2.5%rdg+4dgt)
Burden Voltage: 430µA, 43mA rng:
500mVrms; 430mA rng: 1.0Vrm; 10A
rng: 500mVrms
Conversion Type: Average Sensing, RMS
Display
OL Protection: Same fusing as DC Current

Resistance

Ranges: 430, 4.3k, 43k, 430k, 4.3M, 43MΩ
Resolution: 430Ω rng 100mΩ
Accuracy: 430Ω rng ±(0.8%rdg+4dgt),
4.3-430kΩ rng ±(0.7%rdg+2dgt),
4.3MΩrng ±(1.0%rdg+4dgt),
43MΩrng±(2.0%rdg+4dgt)
OL Protection: All rngs 500VDC or ACrms
Open Circuit Voltage: 430Ω rng 3.2VDC
typical, all other rngs 0.6VDC typical

Diode & Continuity Test

Range: 4.3V; Resolution: 1mV
Accuracy: ±(1.5%rdg+2dgt)
Short Circuit Current: 1.0mA
Max Open Circuit Volts: 3.2VDC
Display Response: <500ms
Continuity Threshold: 430Ω rng 50Ω
±25Ω
OL Protection: 500VDC or ACrms

Logic Test

Logic Type: TTL : 5VDC
Thresholds: Logic 1 (Hi): 2.8V±0.8V, logic 0
(Lo): 0.8V±0.5V
Frequency Response: 20MHz
Pulse Width: 25nsec minimum
Duty Cycle: >20% and <80%
Pulse Rise Time:10µsec
Pulse Repitition Rate: 1M PPS
Indication: 40ms beep at logic 0 (OL)
OL Protection: 500VDC or ACrms

Display Warning Bolt

Thresholds: >30Vrms or >60VDC