

**RSR ELECTRONICS PART NO. 01MS8209
ENVIRONMENTAL TESTER + MULTI-FUNCTION DMM**

Specifications of the MS8209 5 in 1 meter		
As a multimeter		
DC Voltage		
Range	Resolution	Accuracy
400mV	0.1mV	±0.7% (0.7% of reading + 2 digits)
4V	1mV	±0.7% (0.7% of reading + 2 digits)
40V	10mV	±0.7% (0.7% of reading + 2 digits)
400V	100mV	±0.7% (0.7% of reading + 2 digits)
600V	1V	±0.7% (0.7% of reading + 2 digits)
Input impedance: 10 M Ohm		
Over load protection: 400mV Range 250V DC or rms AC, 4V-600V ranges: 600V DC or rms AV, Max input voltage : 600V DC or rms AC		
AC Voltage		
Range	Resolution	Accuracy
4V	1mV	±0.8% (0.8% of reading + 3 digits)
40V	10mV	±0.8% (0.8% of reading + 3 digits)
400V	100mV	±0.8% (0.8% of reading + 3 digits)
600V	1V	±0.8% (0.8% of reading + 3 digits)
Input impedance: 10 M Ohm		
Over load protection: 400mV Range 250V DC or rms AC, 4V-600V ranges: 600V DC or rms AV, Max input voltage : 600V DC or rms AC		
Frequency range: 40 to 1000Hz,		
Resonse: Average, calibrated in rms of sine wave.		
DC Current		
Range	Resolution	Accuracy
40mA	10uA	±1.2% (1.2% of reading + 3 digits)
400mA	100uA	
10A	10mA	±3.0% (3.0% of reading + 10 digits)
mA ranges: F500mA/250V fuse (quick acting),10A range: unfused. Max. Input current:mA jack:400mA,10A jack :10A; Voltage Drop: ma ranges :5mV/1mA, 10A range: 10mV/1A		
AC Current		
Range	Resolution	Accuracy
40mA	10uA	±1.5% (1.5% of reading + 5 digits)
400mA	100uA	
10A	10mA	±3.0% (3.0% of reading + 10 digits)
mA ranges: F500mA/250V fuse (quick acting),10A range: unfused. Max. Input current:mA jack:400mA,10A jack :10A; Voltage Drop: ma ranges :5mV/1mA, 10A range: 10mV/1A		
Resonse: Average, calibrated in rms of sine wave.		
Resistance		

Range	Resolution	Accuracy
400 μ A	0.1 μ A	±A (1.2% of reading + 2 digits)
4K μ A	1 μ A	
40K μ A	10 μ A	
400K μ A	100 μ A	
4M μ A	1K μ A	
40M μ A	10 μ A	±A (1.2% of reading + 2 digits)
Open Circuit Voltage: 0.25V, Overload Protection: 250V or rms AC		
Capacitance		
Range	Resolution	Accuracy
4nF	1pF	±A (3.0% of reading + 3 digits)
40nF	10pF	
400nF	0.1nF	
4uF	1nF	
40uF	10nF	
200uF	100nF	
Overload Protection: 250V DC or rms AC		
Frequency		
Range	Resolution	Accuracy
9.999 Hz	0.001Hz	±A (2.0% of reading + 5 digits)
99.99Hz	0.01 Hz	±A (1.5% of reading + 5 digits)
999.9 Hz	0.1Hz	
9.999 KHz	1 Hz	
99.99 KHz	10 Hz	±A (2.0% of reading + 5 digits)
199.9 KHz	100 Hz	Reference only
>200 KHz		
By Hz Range: Range: 0 - 200 KHz Input Voltage: 0.5V - 10V rms AC		
By V Range: Range: 0 - 40 KHz Input Voltage range: 0.5V - 600V rms AC, Input impedance: 10M Ω ,		
By mA Range: Range: 0 - 40 KHz, Input current range: 100mA - 400mA rms AC		
Duty Cycle		
Range	Resolution	Accuracy
0.1 - 99.9 %	0.1%	±A 3.0%
Note: When measuring frequency, the range by Duty of Hz range is larger than by Duty of voltage or current range. More to see on the manual book.		
Diode		
Range	Resolution	Accuracy
Diode	1mV	Display: read approx forward voltage of diode
Continuity		
Built in buzzer will sound if the resistance is lower than 40 Ohms.		

As a Thermometer			
Range	Resolution	Accuracy	
0.1jæ	0.1jæ	-20jæ to 0 jæ	jA (5.0% of reading + 8 digits)
		0jæ to 20 jæ	jA (3.0% of reading + 8 digits)
		20 jæ to 400jæ	jA (2.0% of reading + 5 digits)
0.1jæ	1 jæ	-20jæ to 0jæ	jA (5.0% of reading + 5 digits)
		0jæ to 400jæ	jA (1.0% of reading + 3 digits)
		400jæ to 1000jæ	jA (2.0% of reading + 3 digits)
As a Humidity Meter			
Range	Resolution	Accuracy	
30 - 90 %	0.1%	jA 5.0% RH	
Response time: 45% - 90 %RH < 10 Minutes, 90% - 45% < 15 Minutes			
As a Sound Level Meter			
Range	Resolution	Accuracy	
30dB - 100dB	0.1dB	jA 3.5% dB at 94 dB, 1K Hz sine wave.	
Lux Meter			
Range	Resolution	Accuracy	
Lux (4000)	1 Lux	jA (5.0% of reading + 10 digits)	
X 10 Lux (40000)	10 Lux	at color temp. 2850K, calibrated to standard incandescent lamp at color temperature 2856 K	