

High Resistance Meter SME1290 Series



Features

- 6½ Digit measurement resolution
- Four measurement modes: high resistance meter, voltmeter, ammeter, electrometer independent current and voltage measurement
- Built-in voltage source: ±1000V, resolution: 700µV
- Current range: 20pA-20mA, current resolution up to 0.1fA (10⁻¹⁶A), the internal resistance voltage drop in the lowest current range <20µV
- The measurement resistance is as high as 10PΩ (10¹⁶Ω), and the charge measurement is as low as 2nC. The input impedance is >200TΩ
- Support voltage measurement up to 20V, temperature and humidity measurement
- Time domain view, capture transient signal effects and select specified measurement data to support data recording
- With dedicated shielding test box (Optional)

Technical Specifications	SME1290	SME1290A	SME1291	SME1291A
Measurement Resolution	6½ Digit			
Current Measurement	1 fA ~ 20 mA	0.01 pA ~ 20 mA	0.1 fA ~ 20 mA	0.01 pA ~ 20 mA
Minimum Range	20 pA	2 nA	20 pA	2 nA
Resistance Measurement	10 PΩ	10 TΩ	-	-
Voltage Measurement	1 µV ~ 20 V	1 µV ~ 20 V	-	-
Input Resistance	> 200 TΩ	> 200 TΩ	-	-
Charge Measurement	1 fC ~ 2 µC	-	-	-
Voltage Source	± 1000 V	± 1000 V	-	-
Minimum Resolution	700 µV	700 µV	-	-
Current Measurement				
Range	Display Resolution		Accuracy ± (% + deviation)	
20 pA	1 fA		1% + 5 fA	
200 pA	1 fA		0.5% + 5 fA	
2 nA	1 fA		0.2% + 50 fA	
20 nA	10 fA		0.2% + 3 pA	
200 nA	100 fA		0.2% + 5 pA	
2 µA	1 pA		0.1% + 50 pA	
20 µA	10 pA		0.05% + 500 pA	
200 µA	100 pA		0.05% + 5 nA	
2 mA	1 nA		0.05% + 50 nA	
20 mA	10 nA		0.05% + 500 nA	

Technical Specifications		SME1290	SME1290A	SME1291	SME1291A
Resistance Measurement					
Range	Display Resolution	Voltage Source	Current Range	Accuracy \pm (% + deviation)	
1 M Ω	1 Ω	20 V	200 μ A	0.135% + 1 Ω	
10 M Ω	10 Ω	20 V	20 μ A	0.135% + 10 Ω	
100 M Ω	100 Ω	20 V	2 μ A	0.185% + 100 Ω	
1 G Ω	1 k Ω	20 V	200 nA	0.285% + 1 k Ω	
10 G Ω	10 k Ω	20 V	20 nA	0.285% + 10 k Ω	
100 G Ω	100 k Ω	20 V	2 nA	0.41% + 100 k Ω	
1 T Ω	1 M Ω	200 V	2 nA	0.45 + 1 M Ω	
10 T Ω	10 M Ω	200 V	200 pA	0.625% + 10 M Ω	
100 T Ω	100 M Ω	200 V	20 pA	0.75% + 100 M Ω	
Voltage Measurement					
Range	Display Resolution		Accuracy \pm (% + deviation)		
2 V	1 μ V		0.05% + 40 μ V		
20 V	10 μ V		0.05% + 400 μ V		
Charge Measurement					
Range	Display Resolution		Accuracy \pm (% + deviation)		
2 nC	1 fC		0.5% + 50 fC		
20 nC	10 fC		0.5% + 500 fC		
200 nC	100 fC		0.5% + 5 pC		
2 μ C	1 pC		0.5% + 50 pC		
Voltage Source					
Range	Display Resolution	Accuracy \pm (% + deviation)	Output Current		
20 V	700 μ V	0.05% + 2 mV	\pm 20 mA		
1000 V	35 mV	0.05% + 100 mV	\pm 1 mA		
General specification					
Display	5.0 inch capacitive touch screen				
Input Supply	230V \pm 10%, 50/60Hz				
Operating condition	0°C to 40°C, \leq 80%RH				
Storage condition	-10°C to 50°C, \leq 90%RH				
Dimensions	W : 235 x H : 111 x D : 440 mm				
Weight	3.5 kg.				
Interface	RS232, USB Device, USB Host, GPIB, LAN, HANDLER, INTERLOCK				
Standard Accessories	Power Cord, High Voltage Cable, Test Cable, USB Cable, Short Circuit Adapter, Temperature Sensor				

Subject to change

scientific

Scientific Mes-Technik Pvt. Ltd.

B-14, Pologround, Industrial Estate, Indore 452 015, India

☎ 0731-2422330/31/32/33

📄 0731-2422334

✉ sales@scientificindia.com

🌐 www.scientificindia.com

Bengaluru 080-23452635
 Chennai 044-42054180
 Gujarat +917567463752
 Hyderabad +917095228811

✉ bangalore@scientificindia.com
 ✉ chennai@scientificindia.com
 ✉ gujarat@scientificindia.com
 ✉ hyderabad@scientificindia.com

Kolkata +919673162333
 Mumbai +919850901735
 New Delhi +918889912554
 Pune +919850901735

✉ kolkata@scientificindia.com
 ✉ mumbai@scientificindia.com
 ✉ ndelhi@scientificindia.com
 ✉ pune@scientificindia.com

