

DATA SHEET



Model SR 1

Standard Resistor

- Versatile working standard
- 50 ppm long-term accuracy for most values
- Select from a wide range of values from 1Ω to 10MΩ
- Accurate, stable, low cost

The Model SR 1 Standard Resistor is a laboratory standard of high accuracy and stability. The resistance of most values is initially adjusted to an accuracy of 20 ppm of nominal, with long term accuracy guaranteed to better than 50 ppm. Other values have initial accuracy from 50 ppm to 200 ppm.

Model SR 1 has been constructed to meet today's high standards of performance. The resistance wire used is a modern alloy having excellent stability, extremely low temperature coefficient over a wide range of temperatures, and very low thermal emf to copper. A unifilar winding on a flat mica card is used to minimize both series inductance and shunt capacitance. The durable aluminum case provides electrostatic shielding. Goldplated terminals reduce connection errors.

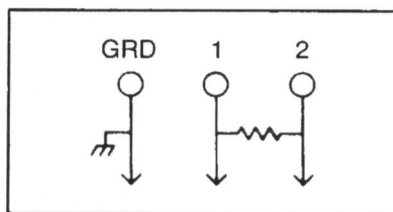


Terminals appear on the top of each unit. They are also brought out the bottom of the case on removable banana plugs. This allows plugging two or more units together in either series or parallel for a wide variety of resistance values. Four-terminal resistance measurements are easily made by using the banana plugs on the bottom of the case as two of the terminals.

For three-terminal or five-terminal guarded measurements, a binding post on top and a banana plug on the bottom provide connections to the case.

Standard equipment

Model SR 1 comes complete with an 8234 instruction sheet.



Specifications

Standard Values	1Ω, 10Ω, 100Ω, 1kΩ, 10kΩ, 100kΩ, 1MΩ and 10MΩ
Nonstandard Values	on request
Accuracy	see table
Calibration Conditions	23 °C, low power, four-terminal measurement
Temperature Coefficient	See table
Power Coefficient	See table
Terminal Resistance	Units with 1Ω or higher resistance: Binding posts add 0.1 to 0.2mΩ to four-terminal resistance value; banana plugs add 2 to 3mΩ additional resistance
Maximum Ratings	See table
Breakdown Voltage	1500V peak to case
Calibration Data	Initial calibration readings are affixed to instrument
Dimensions	Height 2.1 in. (5.3cm) Width 3.8 in. (9.65cm) Depth 2.4 in. (6.1cm)
Weight	8 oz (227 gm) net

ACCURACY				COEFFICIENTS		MAXIMUM RATINGS		
VALUE (Ω)	INITIAL (ppm)	LONG-TERM (ppm)	CALIBRATION (ppm)	TEMP (ppm/°C)	POWER (ppm/mW)	POWER (mW)	CURRENT (mA)	VOLTAGE (peak V)
1	20	50	10	15	0.3	1000	1000	
10	20	50	10	15	0.3	1000	320	
100	20	50	10	5	0.1	1000	100	
1k	20	50	10	5	0.1	1000	32	
10k	20	50	10	5	0.1	1000	10	
100k	20	50	10	5	0.1	1000	3.2	
1M	50	100	20	5	0.1	100	0.3	300
10M	50	100	20	5	0.1	10	0.03	300