

Model 9200

DC Multiple Standard Resistor

Use As A Precision Current Shunt or as a Standard Resistor



9200 Features

- > Accuracy $\pm 0.01\%$
- > Resistance values from 0.01 to 10,000 ohms
- > Compact for bench use
- > Temperature Coefficient $< 5\text{ppm}/^\circ\text{C}$
- > Stability $< 10\text{ppm}/\text{year}$

Guildline Model 9200 is a compact, bench-mounting, four-terminal unit in a durable Formica case, with all terminals on the top surface panel. Separate current and potential terminals are provided.

Two brass plugs, inserted in pairs of ports in the panel, select one of seven decade resistance values from 0.01 to 10,000 ohms, for measurement of currents up to 15 amperes, using a potentiometer reading up to 0.15 volts.

Accuracy is calibrated at 23 °C, and referred to the unit of resistance as maintained by the National Research Council of Canada or the National Institute of Standards and Technology. A traceable report of calibration stating measured values and uncertainty is provided with each unit.

The resistor elements are mounted in air for minimum size and weight while minimizing self-heating effects. The elements are non-inductively wound of selected and heat treated zeranin wire.

The 9200 is a versatile multiple value Resistance Standard.

Selection of resistance is conveniently accomplished by insertion of two plugs in the appropriate locations.

The 9200 may be used as a check standard for the resistance ranges of a DMM up to 10,000 ohms and as low as 0.01 ohms.

Stability of resistance value is better than 10ppm per year.

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Selected Resistance (Ohms)	Rated Current (Amperes)	Maximum Current (Amperes)	Accuracy (Note 1, 2)	Manufacturer's Calibration Uncertainty (\pm ppm)	Temperature Coefficient (ppm/ $^{\circ}$ C)	Power Dissipation at Rated Current (mW)
10,000	0.000015	0.003	$\pm 0.01\%$	3	3	0.0023
1,000	0.00015	0.01	$\pm 0.01\%$	3	3	0.023
100	0.0015	0.03	$\pm 0.01\%$	3	3	0.23
10	0.015	0.1	$\pm 0.01\%$	3	3	2.25
1	0.15	0.3	$\pm 0.01\%$	3	3	22.5
0.1	1.5	2	$\pm 0.01\%$	5	5	225
0.01	15.0	20	$\pm 0.01\%$	10	10	2.25 W

9200 Specifications

Note 1: Calibrated in air at $23 \pm 1^{\circ}\text{C}$ referred to the unit of resistance as maintained by the National Research Council of Canada or the National Institute of Standards and Technology, and expressed as a deviation from nominal with a total uncertainty and coverage factor of $k = 2$.

Note 2: A traceable report of calibration stating the measured values and uncertainty is provided with each unit at rated current down to a minimum of 0.1mA. Resistance selections of 1 ohm and lower are provided with additional values at 1/10 rated current.

9200 Ordering Information

9200 DC Multiple Standard Resistor
TM9200 Technical Manual (included)
Certificate of Calibration (included)
Report of Calibration (extra charge)

Accessories:

92301 20A, 1m Lead Set

GENERAL SPECIFICATIONS

Environment	Operating	15 $^{\circ}$ C to 35 $^{\circ}$ C, < 70% RH non-condensing
	Storage	-20 $^{\circ}$ C to 55 $^{\circ}$ C, < 90% RH non-condensing
Exterior Dimensions		H 200 mm (7.8 in.)
		W 183 mm (7.2 in.)
		D 283 mm (11.1 in.)
Weight		5.5 kg (12 lbs)

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