

## MULTIPLE RESISTANCE STANDARD – TEMPERATURE STABILIZED

- SEVEN RESISTANCE STANDARDS
- TEMPERATURE CONTROLLED
- DECADE OR THERMOMETRY VALUES AVAILABLE
- TRANSPORTABLE



Model MRS Temperature Stabilized Multiple Resistance Standard

Ohm-Labs' Multiple Resistance Standard maintains state-of-the-art resistance from 0.1 Ω to 10 M Ω.

The MRS incorporates seven stabilized resistance standards, similar to those used in Ohm-Labs' 100 series air resistance standards.

The temperature coefficient of resistance has been reduced to nearly zero by potting the resistors into a constant temperature housing, controlled and monitored by a precision temperature control circuit. The housing also provides immunity from relative humidity and pressure effects.

The standard model contains seven decade values from 1 Ω to 1 M Ω. Any seven resistance values may be specified between 0.1 ohm and 1 megohm. For example, thermometry or strain gage models can be supplied.

A precision thermometer indicates resistor temperature. A thermistor and two ports are provided for an external monitoring. The MRS may be set from 18 to 30 °C to characterize the resistors.

The MRS temperature stabilizes in less than one hour, allowing resistance standards to be used in the field or on-site with the highest accuracy.

ISO 17025 accredited, NIST traceable calibration is included.

For less than the cost of seven resistance standards, the model MRS provides superior performance and versatility. With model MCS and MHS, state-of-the-art resistance may be maintained from 0.1 milli-ohm to 1 teraohm without the need for constant temperature baths or precision thermometers.

Specifications (standard decade model)					
Nominal Resistance	Initial Tolerance	Temperature Coefficient	Calibration Accuracy	12 month Stability	Recom. Current
1 Ohm	<3 ppm	<0.005 ppm per °C for all values	0.5 ppm	<2 ppm per year for all values	100 mA
10 Ohm			0.5		30
100 Ohm			0.7		10
1 K			1.1		3
10 K			0.5		1
100 K	<5 ppm		3		0.3
1 Meg			4		0.1

**Notes:**

- Stated tolerances are at time of manufacture
- Temperature coefficient is from 18 to 30 °C
- Physical: 471 x 147 x 463 (17.75" x 5.25" x 18.25") 3U; 16 kG / 35 #
- Accessories available:
  - Thermistor cable (2 mm plug to 4 mm plug or to spade lugs)

