



Measurements International
Metrology is Our Science, Accuracy is Our Business™

TRAVELING RESISTANCE STANDARD

MODEL 4304

- Battery Backup
- 1 Ω , 10 k Ω , 1 M Ω & 100 M Ω Values
- Custom Values Available
- Stability < 2.5×10^{-6} /Year
- Temperature Coefficient < 0.005×10^{-6}
- Temperature Regulation ± 0.01 °C/Year



MODEL 4304 TRAVELING RESISTANCE STANDARD

The Model 4304, a four-element resistance standard is the latest development from Measurements International's series of DC resistors and shunts. After many years of research in resistance materials, the Model 4304 insures that you get the best performance on the market today. Combined with MI's experience in automated resistance measurements the 4304 is used as a mobile temperature controlled, 4-element working resistance reference.

The four-resistance elements; 1 Ω , 10 k Ω , 1 M Ω & 100 M Ω have excellent stability and extremely low temperature coefficients and are all packaged in a portable unit. Each output resistance element is accessible from front of the unit with four terminal binding posts suitable for easy termination with spade lugs or wires. The resistor elements are maintained at 30 °C, with an operating environment temperature range extending from 20 °C to 26 °C. An internal battery backup will maintain the temperature for up to 140 hours under normal transportation conditions.



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Specifications: Rev 6

Nominal Resistance (Ohms)	Nominal Resistance Tolerance ($\pm$ ppm)	Calibration Uncertainty ($\pm$ ppm)	24 Hour Stability ($\pm$ ppm)	12 Month Stability ($\pm$ ppm)	Temperature Coefficient ($\pm$ ppm/°C)	Max. Voltage (Volts)
100 M Ω	50	5	1	25	0.025	1000
1 M Ω	25	2	0.8	2.5	0.005	320
10 k Ω	10	0.2	0.25	2.5	0.005	32
1 Ω	10	0.2	0.25	2.5	0.005	0.32
Temperature Regulation				± 0.01 °C Over a 1 Year Period		
Ambient Temperature Range				23 °C $\pm$ 3 °C		
Ambient Humidity Range				20 to 50 % RH		
Warranty				Standard 1 Year Parts & Labour		

Dimensions (L $\times$ W $\times$ H):

381 $\times$ 305 $\times$ 216 (mm)

Weight:

14 kg

Shipping Weight:

20 kg

Main Power:

115, 230 V – 50/60 Hz



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