

# **Measurements International** Metrology is Our Science, Accuracy is Our Business<sup>™</sup>

### 9210B REFERENCE SERIES STANDARD AC/DC **OIL RESISTORS**



#### Featuring

- Decade Values 0.1 Ω, 1 Ω, 10 Ω, 100 Ω, 1 kΩ, 10 k $\Omega$ , 100 k $\Omega$  with Optional Carrying Case
- Temperature Coefficient < 2 × 10<sup>-7</sup>/°C
- Long Term Drift < 1 × 10<sup>-6</sup>/Year
- No Pressure Coefficient
- Maximum Dissipation 100 Milliwatts
- Highest Performance Dissipation 10 Milliwatts
- Typical AC/DC Error < 1 ppm up to 1 kHz

Feature	Benefit
Unmatched stability.	Provides confidence in uncertainty calculation.
Low temperature coefficient.	Lower uncertainties.
Custom values available.	Gives you the solution you need for your application.
Metal film technology.	Excellent AC/DC agreement.
No pressure coefficient.	No change in value for elevation change.
Industry leading warranty.	3 years.



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Through years of technological experience developing the most accurate and stable resistance standards available, Measurements International has developed the model 9210B Reference Series of Precision Standard Resistors. The 9210B uses oil-filled resistive and coil elements housed in a sealed enclosure. This design offers immunity to changes in barometric pressure and humidity.

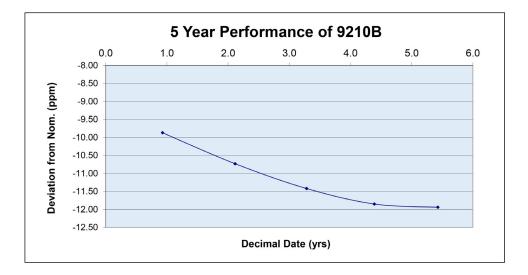
These resistance standards are designed to be used in the MI 9400 temperature-controlled oil or 9300A air bath to achieve their specifications. However, for optimal performance as a primary set of resistors, it is recommended that the resistors be placed in the Measurements International's model 9400 Oil Bath. Connections to the 9210B are made at the top of the resistor. The resistors are compact in design and can easily meet the need of sitting 4 inches below the top of the oil.

Connections to the 9210B are made using Tellurium copper binding posts.

An interconnecting cable may also be ordered with the 9210B Resistance Standards. The interconnecting wire comes in either two- or four-conductor configurations. The wire may be ordered in lengths with screens already attached or in 100 metre rolls. No. 18 gauge solid copper, silver-plated, screened Teflon cable is recommended.

Each 9210B comes with a calibration report including the assigned value and temperature coefficient data. The small rugged design allows commercial transport.

For values above 100 k $\Omega,$  see our 9331R and 9331G series' of resistors.





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## 9210B REFERENCE SERIES STANDARD AC/DC **OIL RESISTORS**

#### Specifications: Rev 6

Model	Nominal Value Ohms	Tolerance ± ppm	First Year Drift (ppm)	Stability 12 Month (ppm)	Max Current (A)	TC at 25 °C ± 1 °C (ppm/°C)	Maximum Voltage
9210B/0.1	0.1	10	2.5	1	1	0.1	0.1
9210B/1	1	10	2.5	1	0.316	0.1	0.32
9210B/10	10	2	2.5	1	0.1	0.1	1.0
9210B/25	25	2	2.5	1	0.063	0.1	1.58
9210B/100	100	2	2.5	1	0.031	0.1	3.16
9210B/1 k	1 k	2	2.5	1	0.01	0.1	10.00
9210B/10 k	10 k	2	2.5	1	0.003	0.1	31.62
9210B/100 k	100 k	2	2.5	1	0.001	0.1	100.0

\* Tolerance - Defined as the potential variance from the nominal resistance value at the time of manufacture. Due to the natural ageing process, it is recommended that the resistance value be monitored closely for the first year of ownership.

Dimensions (L × W × H):	Weight:	Shipping Weight:
69 × 97 (mm)	1 kg	Provide with Quote
55 × 110 (mm)	1.5 kg	
M · D		

#### Main Power:

N/A

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