



## Model 9331

### Standard Air Resistor

*No Oil or Air Bath Required  
Operating Range 18°C to 28°C  
Accurate Working Standard  
Custom Values Available  
1 to 100M Ohm*

### General Description:

These high accuracy working standards are used for precision, on-site, resistance calibrations for values from 1 ohm to 100 MΩ. They are small, light and rugged resistance standards. The resistance standards require no temperature controlled oil or air baths for the specifications shown. However, for optimal performance as a primary set of resistors, it is recommended that the resistors be placed in the Measurements International's Model 9300 Air bath.

Stability and temperature coefficients of the 9331 make this resistor ideal for easy transport and for operation in any working environment within the range of 18 to 28°C. Connections to the Model 9331 are made using tellurium copper binding posts for values to 100MΩ. A separate ground terminal is included for screening and the case is hermetically sealed to keep moisture out.

Interconnecting cable may also be ordered with the 9331 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-meter rolls. No. 18 gauge solid copper, silver-plated, screened Teflon cable is recommended. Four-conductor cable is recommended to 1M ohm and two-conductor cable for values above 1M.

Each 9331 comes with a calibration report including the assigned value and uncertainty. Temperature coefficient data is detailed under specifications and is centered on 23°C. However, Alphas and Betas may be ordered separately as part of the calibration report.

# Model 9331

## Specifications:

Model	Value in Ohms	Nominal Resistance at 23°C ± PPM	Maximum Deviation From 23°C Value 18 to 28°C ± PPM	Stability 1 Year ± PPM	Maximum Current (Amps)	Maximum Voltage
9331/1	1	2	2	5	0.3162	0.32
9331/1.9	1.9	2	2	5	0.2294	0.44
9331/10	10	2	2	5	0.1000	1.00
9331/19	19	2	2	5	0.0725	1.38
9331/25	25	2	2	5	0.0632	1.58
9331/50	50	2	2	5	0.0447	2.24
9331/75	75	2	2	5	0.0365	2.74
9331/100	100	2	2	5	0.0316	3.16
9331/190	190	2	2	5	0.0229	4.36
9331/200	200	2	2	5	0.0224	4.47
9331/300	300	2	2	5	0.0183	5.48
9331/400	400	2	2	5	0.0158	6.32
9331/1K	1K	2	2	5	0.0100	10.00
9331/1.9K	1.9K	2	2	5	0.0073	13.78
9331/6.4K	6.4K	2	2	5	0.0040	25.30
9331/10K	10K	2	2	5	0.0032	31.62
9331/12.9K	12.9K	2	2	5	0.0028	35.92
9331/19K	19K	2	2	5	0.0023	43.59
9331/100K	100K	2	2	5	0.0010	100.00
9331/190K	190K	2	2	5	0.0007	137.84
9331/1M	1M	2	2	5	0.0003	316.23
9331/1.9M	1.9M	5	3	10	0.0002	435.89
9331/10M	10M	5	3	10	0.0001	1000
9331/19M	19M	10	10	25	10uA	1000
9331/100M	100M	10	10	25	10uA	1000

### Dimensions:

L 125 x W 78 x D 59 mm

### Weight:

0.5 kg

### Shipping Weight:

2 kg

### Distributed By:

### How to Order:

Model: 9331/XXX  
Standard Air Resistor

Data Subject to Change

Printed in Canada



**Measurements International**

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