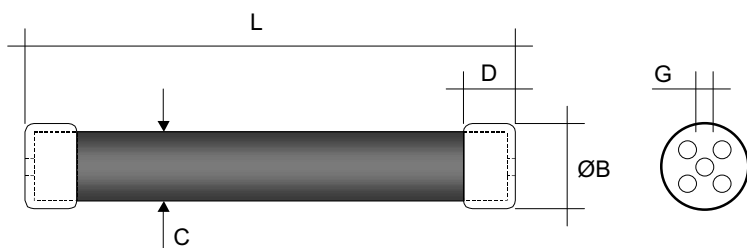


High Voltage Resistors Series 500 Precision, Non-Inductive, Low TC

High Voltage Power Resistors Series 500 combine proprietary non-inductive resistance system and design to achieve low temperature coefficient, low voltage coefficients, high stability, increased high operating voltages and high power ratings.

These Precision High Voltage Power Resistors are designed to meet the demanding requirements of TWT power supplies, electron microscopes, X-ray systems, high resolution CRT displays, geophysical instruments and power transmission lines.



**NON
INDUCTIVE**

Model	Wattage	Max. Operating Voltage*	Dimensions in millimeters ± 1.00 [Dimensions in inches ± 0.04]				
			L	B	C	D	G
500.10	15.00	35'000	81 ± 1 [3.19 ± 0.04]	14.00 [0.55]	13.50 [0.53]	10.00 [0.40]	M4
500.20	25.00	80'000	156 ± 1.5 [6.14 ± 0.06]	14.00 [0.55]	13.50 [0.53]	10.00 [0.40]	M4
500.50	55.00	70'000	158 ± 1.5 [6.22 ± 0.06]	31.50 [1.24]	30.50 [1.20]	17.00 [0.67]	M8
500.70	75.00	100'000	208 ± 2 [8.19 ± 0.08]	31.50 [1.24]	30.50 [1.20]	17.00 [0.67]	M8
500.100	110.00	150'000	308 ± 3 [12.12 ± 0.12]	31.50 [1.24]	30.50 [1.20]	17.00 [0.67]	M8

* DC or AC peak in dry air.

Characteristics

Resistance Values	from 1KΩ to as high as 100GΩ on all models (to 1TΩ on request)
Tolerances	0.05%, 0.1%, 0.25%, 0.5%, 1%, 2%, 5%, 10% (0.05% avail. to 10G, 0.25% to 100G, other on request)
Temperature Coefficients*	5, 10, 15, 25, 50 and 100 ppm/°C (10 ppm/°C available to 10G, 25 ppm/°C to 100G, other on request)
Operating Temperature	-55 ... +225°C (extended temperature range to 350°C available)
Insulation Resistance	> 10'000 MΩ 500 Volt 25 °C 75% relative humidity
Dielectric Strength	> 1'000 Volt 25 °C 75% relative humidity
Thermal Shock	Δ R/R < 0.1% typ., 0.20% max. MIL Std. 202, method 107 Cond. C IEC 68 - 2 - 14
Overload	Δ R/R < 0.1% typ., 0.25% max. 1,5 x Pnom, 5 sec (do not exceed max. voltage)
Moisture Resistance	Δ R/R < 0.1% typ., 0.25% max. MIL Std. 202, method 106 IEC 68 - 2 - 3
Load Life	Δ R/R < 0.1% typ., 0.50% max. 1000 hours at rated power IEC 115 - 1
Encapsulation	Silicone Conformal Coating
Lead Material	Brass Caps (lug terminations avail.)
	Core Material Al ₂ O ₃ (96%)
	Resistor Material Ruthenium Oxide

* Temperature Coefficient referenced to 25°C, ΔR taken at +125°C.

Voltage Coefficients of Resistance

Type	Resistance Range	VCR (-ppm/V)*
500.10	1K .. 1G5	< 0.09
	1G5 .. 15G	< 0.18
500.20	1K .. 3G5	< 0.04
	3G5 .. 35G	< 0.08
500.50	1K .. 2G5	< 0.04
	2G5 .. 25G	< 0.07
500.70	1K .. 3G5	< 0.03
	3G5 .. 35G	< 0.05
500.100	1K .. 6G	< 0.02
	6G .. 60G	< 0.03

* typical values, contact factory for details

Derating Curve

