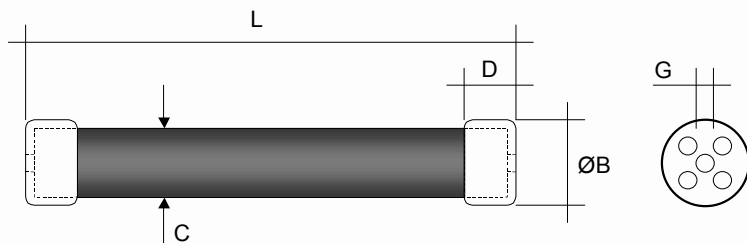


High Voltage Power Resistors Series MS500 High Power, Non-Inductive, High Temperature

High Voltage Power Resistors Series MS500 combine proprietary non-inductive resistance system, power film technology and design to achieve high stability, increased power rating and high operating voltages up to 50 kV.

MS500 Power Film Resistors cover a wide resistance range from 1 Ohm up to 10 MegOhm and operating temperatures from -55°C to $+275^{\circ}\text{C}$. These resistors are ideally suited for high power and high frequency applications.



**NON
INDUCTIVE**

Model	Wattage	Max. Operating Voltage*	Dimensions in millimeters ± 1.00 [Dimensions in inches ± 0.04]				
			L	B	C	D	G
MS500.10	23.00	12'000	81 \pm 1 [3.19 \pm 0.04]	14.00 [0.55]	13.50 [0.53]	10.00 [0.40]	M4
MS500.20	38.00	27'000	156 \pm 1.5 [6.14 \pm 0.06]	14.00 [0.55]	13.50 [0.53]	10.00 [0.40]	M4
MS500.50	83.00	23'000	158 \pm 1.5 [6.22 \pm 0.06]	31.50 [1.24]	30.50 [1.20]	17.00 [0.67]	M8
MS500.70	113.00	33'000	208 \pm 2 [8.19 \pm 0.08]	31.50 [1.24]	30.50 [1.20]	17.00 [0.67]	M8
MS500.100	165.00	50'000	308 \pm 3 [12.12 \pm 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 1 Ω to as high as 10M Ω		
Tolerances	1%, 2%, 5%, 10% (other tolerances to 0.05% on request)		
Temperature Coefficients*	25, 50 and 100 ppm/ $^{\circ}\text{C}$ (other temperature coefficients to 10 ppm/ $^{\circ}\text{C}$ on request)		
Operating Temperature	$-55 \dots +275^{\circ}\text{C}$	(extended temperature range to 350°C available)	
Insulation Resistance	$> 10'000 \text{ M}\Omega$	500 Volt 25 $^{\circ}\text{C}$ 75% relative humidity	
Dielectric Strength	$> 1'000 \text{ Volt}$	25 $^{\circ}\text{C}$ 75% relative humidity	
Thermal Shock	$\Delta R/R < 0.5\%$ typ., 1% max.	MIL Std. 202, method 107 Cond. C	IEC 68 - 2 - 14
Overload	$\Delta R/R < 0.5\%$ typ., 1% max.	1,5 x Pnom, 5 sec (do not exceed max. voltage)	
Moisture Resistance	$\Delta R/R < 0.5\%$ typ., 1% max.	MIL Std. 202, method 106	IEC 68 - 2 - 3
Load Life	$\Delta R/R < 0.5\%$ typ., 1% max.	1000 hours at rated power	IEC 115 - 1
Continuous Working Voltage	Power Limited	$= \sqrt{(PxR)}$	
Encapsulation	Silicone Conformal Coating	Core Material	Al ₂ O ₃ (96%)
Lead Material	Brass Caps (lug terminations avail.)	Resistor Material	Ruthenium Oxide

* Temperature Coefficient referenced to 25 $^{\circ}\text{C}$, ΔR taken at $+125^{\circ}\text{C}$.

Derating Curve

