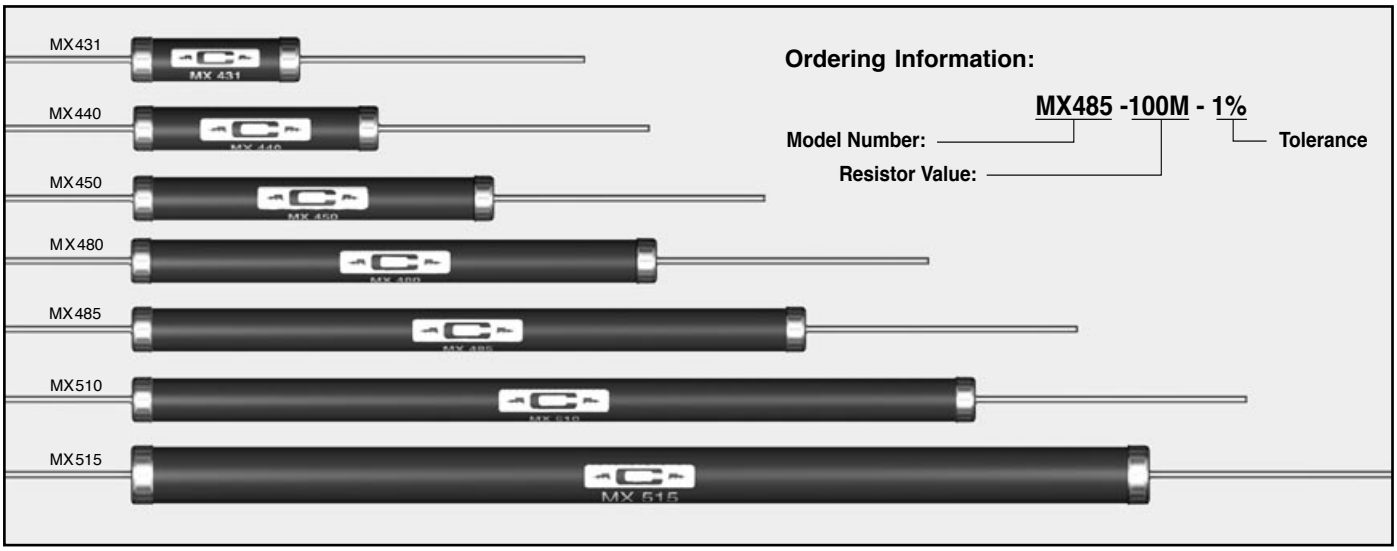
Type MX Precision High Voltage Resistors

Cost Effective High Voltage Resistors for Industrial and General Purpose Applications

The Type MX Precision High Voltage Resistors were specifically developed for use in industrial and general purpose high voltage systems. These resistors combine the proven performance of Caddock's Micronox® resistance system with new cost efficient design elements. These resistors are intended for the design of high voltage systems where the system is not exposed to full military or space grade operating conditions. For full military or space grade operating conditions, we recommend Caddock's **Type TG Low TC Precision High Voltage Resistors** or **Type MG Precision High Voltage Resistors.**

The performance features of the Type MX Precision High Voltage Resistors are:

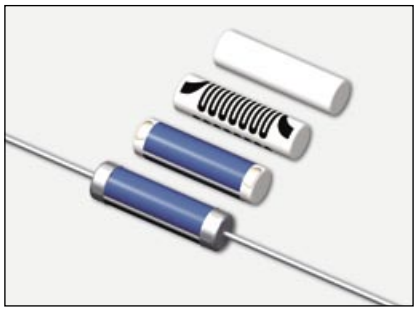
- Seven Models with Voltage Ratings from 7.5 KV to 48 KV.
- Temperature Coefficient: 80 ppm/°C from 0°C to +70°C.
- Load Life Stability of 0.50% per 1,000 hours.
- Resistance Tolerance from ±0.1% to ±10%.
- Non-Inductive Design.
- Resistance Range from 1 Megohm to 2,000 Megohms.



Model No.	Watt-age	Max. Continuous Oper. Volt.	TC ppm/°C	Resistance		Dimensions in inches and (millimeters)		
				Min.	Max.	A	B	C
MX431	2.0	7,500	80	1 Meg	150 Meg	.940 ±.040 (23.88 ±1.02)	.270 ±.020 (6.86 ±.51)	.040 ±.002 (1.02 ±.05)
MX440	3.5	11,000	80	1.5 Meg	300 Meg	1.450 ±.040 (36.83 ±1.02)	.270 ±.020 (6.86 ±.51)	.040 ±.002 (1.02 ±.05)
MX450	5.0	16,000	80	2 Meg	500 Meg	2.080 ±.040 (52.83 ±1.02)	.270 ±.020 (6.86 ±.51)	.040 ±.002 (1.02 ±.05)
MX480	7.5	24,000	80	3 Meg	750 Meg	3.080 ±.050 (78.23 ±1.27)	.270 ±.020 (6.86 ±.51)	.040 ±.002 (1.02 ±.05)
MX485	10.0	32,000	80	4 Meg	1,000 Meg	3.940 ±.050 (100.08 ±1.27)	.270 ±.020 (6.86 ±.51)	.040 ±.002 (1.02 ±.05)
MX510	12.5	40,000	80	5 Meg	1,250 Meg	4.940 ±.080 (125.48 ±2.03)	.270 ±.020 (6.86 ±.51)	.040 ±.002 (1.02 ±.05)
MX515	15.0	48,000	80	6 Meg	2,000 Meg	5.940 ±.080 (150.88 ±2.03)	.330 ±.020 (8.38 ±.51)	.040 ±.002 (1.02 ±.05)

Type MX Resistors Utilize Caddock's Patented Coating Design

Type MX Precision High Voltage Resistors combine Caddock's Non-Inductive serpentine pattern with a patented, high thru-put screen printed silicone coating. The alignment of the gap in the coating pattern with the gap in the serpentine resistor pattern provides a complete encapsulation of the resistor element. The cap and lead assemblies are pressed onto the resistor core, finishing the resistor and providing rugged terminal attachment.



Specifications:

Resistance Tolerance: ±1%, ±2%, ±5%, or ±10% (tolerance to ±0.5%, ±0.25%, or ±0.1% on special order).

Temperature Coefficient: 80 ppm/°C referenced to +25°C, ΔR taken at 0°C and +70°C.

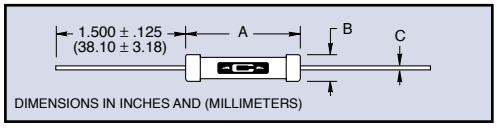
Thermal Shock: Mil-Std-202, Method 107, Cond. A, ΔR, 0.20% max.

Moisture Resistance: Mil-Std-202, Method 106, ΔR, 1.0% max.

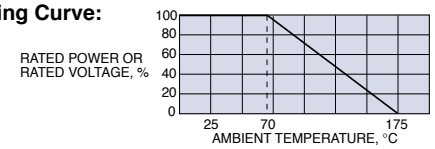
Load Life: 1,000 hours at rated voltage at +70°C, not to exceed rated power, ΔR, 0.50% max.

Lead Material: Tinned copper clad steel, solderable.

Encapsulation: Screen printed high temperature silicone coating over resistor element.



Derating Curve:



Certain products shown in this catalog are covered by one or more patents, there are also patents pending.

Applications Engineering
17271 North Umpqua Hwy.
Roseburg, Oregon 97470-9422
Phone: (541) 496-0700
Fax: (541) 496-0408

CADDOCK ELECTRONICS, INC.
e-mail: caddock@caddock.com • web: www.caddock.com
For Caddock Distributors listed by country see caddock.com/contact/dist.html

Sales and Corporate Office
1717 Chicago Avenue
Riverside, California 92507-2364
Phone: (951) 788-1700
Fax: (951) 369-1151