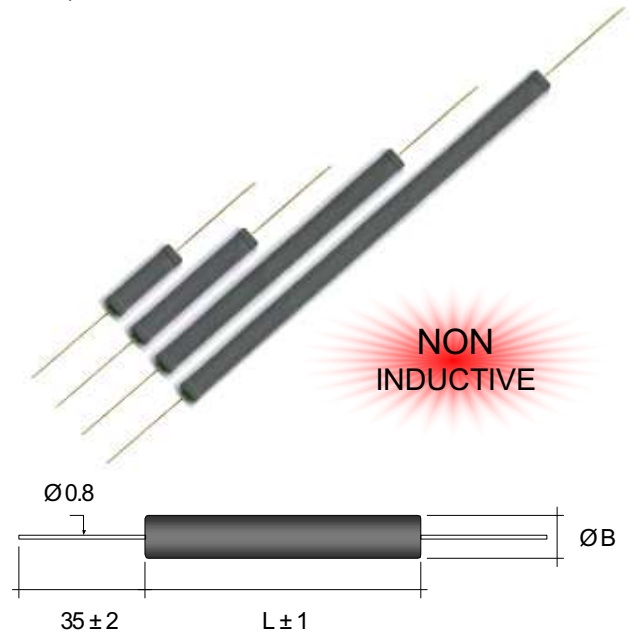


High Voltage Resistors Series 400 Precision, Non-Inductive, Low TC

High Voltage Resistors Series 400 have been developed to meet the precision temperature stability requirements of high accuracy and high voltage systems, combining proprietary non-inductive resistance system and design to achieve low temperature coefficient, low voltage coefficients, high stability and increased high operating voltages. Low TC Precision High Voltage Resistors Series 400 are designed to meet the demanding requirements of TWT power supplies, electron microscopes, X-ray systems, high resolution CRT displays and geophysical instruments.



Model	Wattage	Max. Oper. Voltage	Dimensions in millimeters ± 0.50 [Dimensions in inches ± 0.02]	
			L	B
400.2	3.80	15'000	27.00 [1.07]	8.00 [0.32]
400.3	5.00	21'000	37.00 [1.46]	8.00 [0.32]
400.5	7.50	30'000	52.00 [2.05]	8.00 [0.32]
400.7	10.00	45'000	77.00 [3.03]	8.00 [0.32]
400.10	13.50	60'000	102.00 [4.02]	8.30 [0.33]
400.12	16.00	72'000	122.00 [4.80]	8.50 [0.34]
400.15	20.00	90'000	152.00 [5.98]	8.50 [0.34]

Characteristics

Resistance Values	from 1K Ω to as high as 100G Ω on all models (to 1T Ω 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/ $^{\circ}$ C (10 ppm/ $^{\circ}$ C available to 10G, 25 ppm/ $^{\circ}$ C to 100G, other on request)		
Operating Temperature	-55 .. +225 $^{\circ}$ C	(extended temperature range to 350 $^{\circ}$ C available)	
Insulation Resistance	> 10'000 M Ω	500 Volt 25 $^{\circ}$ C 75% relative humidity	
Dielectric Strength	> 1'000 Volt	25 $^{\circ}$ 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., 0.25% max.	1000 hours at rated power	IEC 115 - 1
Encapsulation	Silicone Conformal Coating	Core Material	Al ₂ O ₃ (96%)
Lead Material	Gold Plated	Resistor Material	Ruthenium Oxide

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

Voltage Coefficients of Resistance

Type	Resistance Range	VCR (-ppm/V)*
400.2	1K .. 500M	< 0.40
	500M .. 5G	< 0.75
400.3	1K .. 1G	< 0.20
	1G .. 10G	< 0.40
400.5	1K .. 1G5	< 0.15
	1G5 .. 15G	< 0.30
400.7	1K .. 2G5	< 0.10
	2G5 .. 25G	< 0.15
400.10	1K .. 3G	< 0.08
	3G .. 30G	< 0.12
400.12	1K .. 4G	< 0.06
	4G .. 40G	< 0.10
400.15	1K .. 5G	< 0.04
	5G .. 50G	< 0.08

* typical values, contact factory for details

Derating Curve

