

High Voltage Divider Series 300 High Precision, Low TC

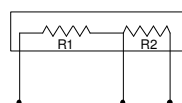
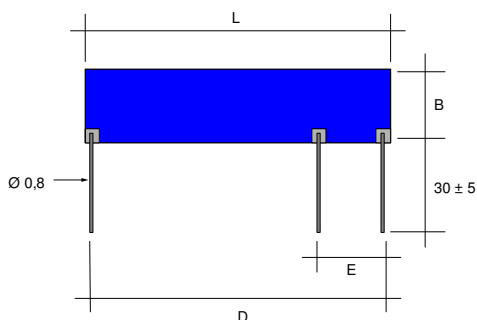
NEW !!
to 55'000 V

High Voltage Dividers Series 300 introduce Nicrom Electronic's exclusive advanced proprietary high voltage resistor technology which increases the allowable working voltage over the length of the high voltage section.

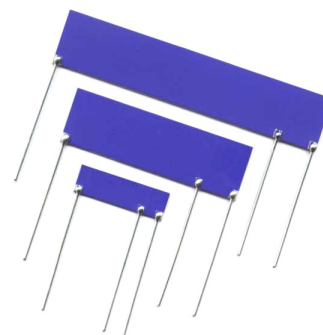
Precision High Voltage Dividers Series 300 provide tighter ratio temperature coefficients and tighter ratio tolerances than have previously been available in standard high voltage divider products.

These specifications can provide important improvements in performance in many types of advanced electronic systems, including TWT power supplies, radar systems, X-ray systems, analytical equipment and high resolution CRT displays.

Precision High Voltage Dividers Series 300 are available in a broad range of custom resistance values, voltage ratios, voltage ratings, ratio tolerances and ratio temperature coefficients.



$$\text{Ratio} = \frac{R2}{R1 + R2}$$



Model	Wattage	Max. Operating Voltage	Dimensions in millimeters ± 0.50 [Dimensions in inches ± 0.02]			
			L	B	D	E
300.2	0.75	12'000	25.4 [1.00]	7.62 [0.30]	22.86 [0.90]	5.08 [0.20]
300.3	1.50	18'000	38.1 [1.50]	12.7 [0.50]	35.56 [1.40]	7.62 [0.30]
300.4	2.50	24'000	50.8 [2.00]	15.24 [0.60]	48.26 [1.90]	10.16 [0.40]
300.5	3.50	40'000	76.2 [3.00]	15.24 [0.60]	73.66 [2.90]	10.16 [0.40]
300.7	4.50	55'000	101.6 [4.00]	15.24 [0.60]	99.06 [3.90]	10.16 [0.40]

Characteristics

Resistance Values	from 1KΩ to as high as 100GΩ on all models	Ratios	1:100 to 1:10'000 on request
Absolute 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)		
Ratio Tolerances	0.05%, 0.1%, 0.25%, 0.5%, 1% (0.02% on request)		
Absolute TC	5, 10, 15, 25, 50 and 100 ppm/°C (10 ppm/°C available to 10G, 25 ppm/°C to 100G, other on request)		
Ratio TC	5 ppm/°C, 10 ppm/°C, 15 ppm/°C, 25 ppm/°C or 50 ppm/°C		
Operating Temperature	-55 ... +175°C	(extended temperature range to 300°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 < 0.05% typ., 0.25% max.	1000 hours at rated power	IEC 115 - 1
Encapsulation	Screen Printed Silicone	Substrate Material	Al ₂ O ₃ (96%)
Lead Material	Tinned Copper	Resistor Material	Ruthenium Oxide

Voltage Coefficients of Resistance

Type	Resistance Range	VCR (-ppm/V)*
300.2	1K .. 500M	< 0.35
	500M .. 7G	< 0.90
300.3	1K .. 1G	< 0.20
	1G .. 10G	< 0.40
300.4	1K .. 1G	< 0.10
	1G .. 20G	< 0.30
300.5	1K .. 1.5G	< 0.07
	1.5G .. 30G	< 0.20
300.7	1K .. 2G	< 0.05
	2G .. 40G	< 0.15

* typical values, contact factory for details

Derating Curve

