

## Series UPR / UPSC Extreme precise radial Resistors

• Precision Tolerances:  $\pm 0.1\%$  is standard, and tolerances as close as  $\pm 0.01\%$  are available

• Low Temperature Coefficient: better than 3ppm/°C, 5ppm°C, 10ppm/°C or 15ppm/°C

 $\bullet$  Long-Term Stability: better than  $\pm 0.05\%$  per 2000 hours of operation.

• Wide Resistance Range: from 10 Ohms to 255 KOhms

Dim.	UPSC	UPR	
А	7.50±.20	10.50±.30	
B	(.295±.008) 8 50+ 20	(.413±.012) 9.00+ 30	
D	(.335±.008)	(.354±.012)	
С	2.50±.20	4.00±.30	
	(.098±.008)	(.157±.012)	
D	0.63±.05	0.63±.05	
	(.025±.002)	(.025±.002)	
E	3.81±.38	7.62±.38	
	(.150±.015)	(.300±.015)	
F	38.10±.50	8.10±.50	
	(1.500±.197)	(1.500±.197)	

Dimensions in millimeters (inches)



## Specifications

- Resistance Tolerance: ±1.0% (tolerances to ±0.01% on special order)
- Std. Operating Temperature: -55°C to + 85°C
- TC Temperature Range: -20°C to + 85°C
- Overload:
  6.25 times rated power for 5 seconds at voltage not to exceed 1.5 times maximum rated working voltage, ΔR less than 0.05%
- Load Life: 2000 hours at + 125°C, ΔR less than 0.05%
- Moisture Resistance: Mil-Std-202, Method 106,  $\Delta R$  less than 0.02%
- Thermal Shock: Mil-Std-202, Method 107, Cond. B, ΔR less than 0.05%
- Isulation Resistance: 10,000 Megohms

- Low Temperature Operation: AB less than 0.02%
- Dielect. Withstanding Voltage:
- $\Delta R$  less than 0.02%
- Vibration:
- $\Delta R$  less than 0.01% • Shock:  $\Delta R$  less than 0.02%



Types UPSC and UPR Low TC Precision Radial-Lead Resistors - Standard Characteristics								
Model No.	Temperature Coefficient ppm/°C	Wattage +70°C	Max. Working Voltage	Dielect Strength U DC	Resistance Min. Max.	Dimensions		
UPSC UPR	±3 to±15 ±3 to±15	0.60 0.60	300 250	500 400	100R 1M 10R 255K	see Matrix see Matrix		

TESTS	CONDITIONS	MIL-R-55182/9	TYPICAL
			DRIFTS
POWER CONDITIONING (108)	100 hours/rated power at + 125°C	-	±.02%
	90'/30' cycle		combined test
THERMAL SHOCK (107)	5 cycles -65°C/+150°C	±.05%	
SHORT TIME OVERLOAD	6.25 times rated power/5sec	combined tests	
LOW TEMPERATURE STORAGE	1h stor. 45 min rated pow. at -65°C	±.05%	-
AND OPERATION	24 h stor. 45 min rated pow. at -65°C	-	±.01%
TERMINAL STRENGTH (211)	2lb pull test	±.02%	±.01%
DIELECTRIC WITHSTANDING	300 V ATMOSPHERIC	±.02%	±.01%
VOLTAGE (301)	200 V/100.000 ft.		
RESIST TO SOLDERING (210)	350°C/3 sec.	±.02%	±.01%
MOISTURE RESISTANCE (106)	10 days	±.05%	±.01%
SHOCK	10 shocks	±.01%	±.01%
	100 g 6 ms sawtooth		
VIBRATION (204)	10 to 2000 Hz. 20 g 8 hours	±.02%	±.01%
	2000 hours at rated power	±.05%	±.05%
LOAD LIFE (108)	at + 25°C, +85°C. or + 125°C		
	10,000 hour at rated power	±.5%	±.2%
	at + 125°C		
STORAGE LIFE	10,000 h. no load at room conditions	-	±.005%

In the above spec sheet, you will find our standard product, please contact your local manufacturing representative or call us direct to find out details of other options available regarding this style. Please see our website for the most updated information!

