

### CODECO CORPORATION OF VERMONT

Series: WP Ultra-Precision Wirewound Resistors

VPR's ultra-precision resistors should be used wherever there is a requirement for extremely tight tolerances, temperature coefficients or a combination of both. These resistors are wound on bobbins of molded epoxy with a single strand of nickel-chromium wire. This wire has no soldered or welded splices that will cause problems after the circuit is in the field. All parts are wound on reversed bi-segmented bobbins to eliminate any possible inductance.

Tension is controlled and kept to a minimum while the winding process takes place to keep out any possible fatigue problems. The windings are then relieved of stresses by extensive aging before calibration and termination operations. The resistors are then given a silicon buffer coat before the final epoxy molding occurs, resulting in a case size that is extremely consistant from part to part. Marking is then done alpha-numerically with a type of epoxy ink that will withstand any of the cleaning or degreasing solvents. All WP series parts are RoHS compliant.

### **Axial Lead Subminiature Series**



Туре	Minimum	Power	Maximum	Diameter	Length	Maximum	Lead
	Tolerance	(Watts)	Resistance	±.005"	±.025"	Voltage	(AWG)
SWP-2 SWP-3 SWP-4 SWP-5 SWP-6 SWP-7 SWP-12 SWP-13	0.1% 0.05% 0.05% 0.01% 0.01% 0.005% 0.005% 0.005%	.06 .08 .10 .12 .15 .25 .20 .10	50K 150K 250K 400K 500K 1 Meg 750K 250K 750K	.100 .125 .125 .187 .187 .210 .187 .156	.210 .260 .375 .250 .295 .465 .450 .312	75 100 100 150 150 250 200 100 200	0.020 .020/.025 0.020 0.025 0.025 0.025 0.025 0.020 0.025

Lead Lengths: 1.5" Minimum

Standard Tolerances: 1%, 0.5%, 0.25%, 0.1%, 0.05%, 0.025%, 0.01%, 0.005%

Temperature Coefficients:  $100\Omega$  and up:  $\pm 10PPM/^{\circ}C$ 

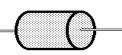
10 $\Omega$  to 100 $\Omega$ : ±20PPM/°C Below 10 $\Omega$ : ±30PPM/°C

Codeco Corporation of Vermont West Hill Road, P.O. Box 1207 Stowe, Vermont 05672-1207 Toll Free: 866-255-8567 Telephone: 802-253-8567 Fax: 802-253-8019



# CODECO CORPORATION OF VERMONT

#### **Axial Lead Series 100**

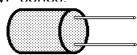


Туре	Power	Maximum	Diameter	Length	Maximum	Lead
	(Watts)	Resistance	±.005"	±.025"	Voltage	(AWG)
WP-100 WP-101 WP-102 WP-103 WP-104 WP-105 WP-106 WP-107 WP-120 WP-120 WP-121 WP-129 WP-139A WP-153	0.20 0.25 0.33 0.50 0.50 0.60 1.00 1.50 2.00 0.40 0.50 0.75 0.15 1.75	800K 1.2 Meg 2.5 Meg 7.5 Meg 7.0 Meg 12.0 Meg 15.0 Meg 25.0 Meg 3.8 Meg 6.0 Meg 10.0 Meg 500K 15.0 Meg	.250 .250 .250 .375 .500 .500 .500 .500 .375 .375 .375 .250	.375 .500 .750 .885 .500 .625 1.000 1.500 2.000 .500 .750 1.000 .250 1.750	200 300 400 400 400 800 900 1000 300 400 600 100 900	#20 or #22 #20 or #22 #20 or #22 #20 #20 #20 #20 #20 #20 #20 #20 #20

Lead Length: 1.5" Minimum

Tolerances and TCs are the same as those shown for the SWP series.

## **Printed Circuit Board Series** (Radial Leads)



Туре	Power	Maximum	Diameter	Height	Maximum	Lead	Lead
	(Watts)	Resistance	±.005"	±.025"	Voltage	Spacing	Size
PWP-100 PWP-101 PWP-104 PWP-120 PWP-130 PWP-131	.125 .25 .50 .50 .125	500K 600K 1 Meg 800K 500K 500K	.250 .250 .500 .375 .250	.375 .500 .500 .500 .312 .312	150 150 400 300 150	.150 .150 .300 .200 .150	.025 .025 .032 .032 .025

Lead Length: 1" Minimum

Tolerances and TCs are the same as those shown for the SWP series.

Codeco Corporation of Vermont West Hill Road, P.O. Box 1207 Stowe, Vermont 05672-1207 Toll Free: 866-255-8567 Telephone: 802-253-8567 Fax: 802-253-8019