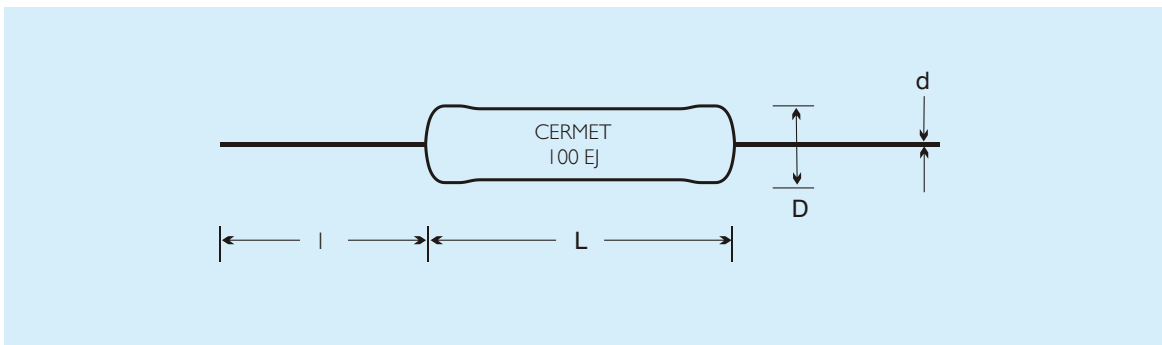
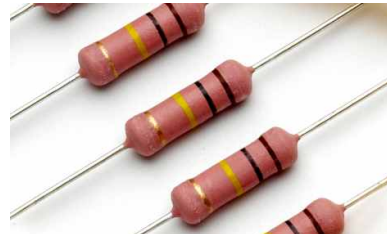


WIRE WOUND RESISTORS (CSIA Series)

CERMET RESISTRONICS PVT. LTD

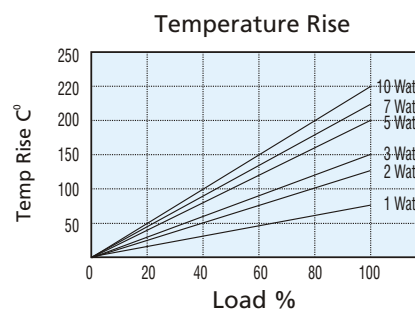
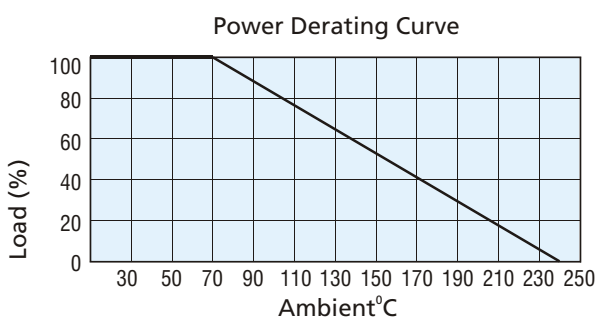


- High Grade Ni-Cr Wire Wound Element on Ceramic Core
- Coated with Heat Insulating Flame Proof Coating
- High Surge Withstanding, Suitable for Energy Meters
- Low temp-Coefficient, High Stability
- Colour Coded or Printed for easy identification
- Aryton-Perry winding ensures Low Inductance
- Standard tolerance 1%, 2% & 5% Available



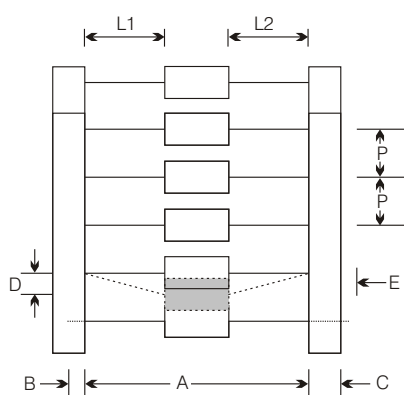
Dimensions (in mm)						
Type	Watt	L	D	d	I	Resistance Range
		±0.50	±0.20	±0.02	±2.0	
CSIA 05	0.50	9.00	3.50	0.52	28.00	0.1 E – 100 E
CSIA 1	1.0	12.00	4.50	0.76	28.00	0.1 E – 150 E
CSIA 2	2.0	16.00	5.50	0.76	28.00	0.1 E – 200 E
CSIA 3	3.0	16.00	5.50	0.76	28.00	0.1 E – 400 E
CSIA 5	5.0	21.00	7.50	0.76	38.00	0.1 E – 1 K
CSIA 7	7.0	25.00	8.50	0.76	38.00	0.1 E – 3 K
CSIA 8	8.0	32.00	8.50	0.76	38.00	0.1 E – 5 K
CSIA 10	10.0	42.00	8.50	0.76	38.00	0.1 E – 10 K

- Non Inductive type Wire Wound Resistors available on Request
- Higher Ohmic Values are made as per Customer Requirement
- Miniature & Ultra- miniature are specially Developed & available on Request



Note: Customised variations available on request.

Characteristics	Test Methods	Limits
D C Resistance	Resistors are tested with standard specified voltages for its Ohmic values to check the specified tolerance.	The Resistors shall be within specified tolerance limits.
Short Time Overload	The Resistors shall be subjected to 2.5 times the Rated Voltage or Maximum overload voltage (Which ever is low) For a duration of 5 secs.	$\Delta R \% = \pm 3.0\%$ (+ 0.05 Ω)
Temp-Coefficient	The Resistors value shall be checked at 2 temp. i.e.one At Ambient & the final at Amb + 100° C. The TCR is then Calculated as : $\frac{R_2 - R_1}{R_1} \times \frac{1}{t_2 - t_1} \times 10^6 = \text{ppm}/^\circ\text{C}$	PPM
		100 PPM Lower ppm on request
Rated Load	A Rated Continuous Working Voltage or Maximum Wkg. Voltage whichever less shall be applied to the resistors for a duration of 2 Hrs.	$\Delta R \% = \pm 2 \% \text{ Max}$
Solderability	A solder bath is maintained at 230°C. The specimen leads are immersed in the bath & withdrawn within 3 secs. A suitable flux is used during the test.	A fresh solder shall cover the specimen leads by Min. 95% coverage.
Resistance to Solder Heat	A solder bath is Maintained at 350°C. The specimen leads are subjected to the bath for a duration of 10 secs.	$\Delta R \% = \pm 1 \% \text{ Max}$
Resistance to Solvents	The specimen shall be subjected to IPA for a duration of 1 min. 10 strokes of hard brush shall be applied. The test shall be conducted 3 times.	The colour code marking shall remain legible.
Die-electric Strength	A foil is wrapped around the specimen body. A voltage of 300 V. @ 0.5 ma shall be applied between both the terminals of the specimen for a duration of 1min.	There shall be no flash over Or break down.
Terminal Strength	Pull Test: The resistor leads shall be pulled using 5 N force Bend Test: The resistor leads are bend through 180° three times.	There shall be no damage.
Load Life	The specimen shall be subjected to an ambient of 70°C for a duration of 1000 Hrs. The specimen shall also be loaded for full power dissipation. The duty cycle shall be 1 ½ Hr. On & ½ Hr. Off.	$\Delta R \% = \pm 5 \% \text{ Max}$
Steady State Humidity	The shall be subjected to an amb. Of 40°c with RH as 95%, for a duration of 56 days. A small DC voltage shall be so applied that the specimen shall dissipate 1% of the rated power.	$\Delta R \% = \pm 5 \% \text{ Max}$



Taping Details

Type	A	B	C	D	E	P	L ₁ - L ₂
CSIA 05	52 ± 1.00	4 ± 1.00	6 ± 0.50	1 Max	0.00	5 ± 0.30	1.0 Max
CSIA 1	52 ± 1.00	4 ± 1.00	6 ± 0.50	1 Max	0.00	10 ± 0.30	1.0 Max
CSIA 2	63 ± 1.00	4 ± 1.00	6 ± 0.50	1 Max	0.00	10 ± 0.30	1.0 Max
CSIA 3	63 ± 1.00	4 ± 1.00	6 ± 0.50	1 Max	0.00	10 ± 0.30	1.0 Max

CSIFP Series Resistors are also supplied bulk PVC Bags