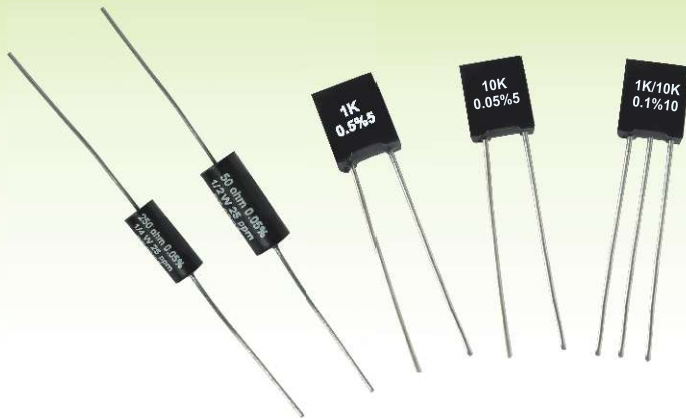


ENCAPSULATED PRECISION RESISTORS



INTRON precision thin film resistors are made by vacuum depositing a controlled film of NiCr on high purity alumina substrate. The resistors are formed using high resolution photolithography. The values are micro trimmed to the exact value with a tolerance of 0.05%. The TCR and tolerance is obtained by process capability and does not rely on a selection process. These resistors are encapsulated using epoxy making them more robust. Resistor sets matched to precise tolerance and TCR can be given.

FEATURES:

- Resistive Material : NiCr
- Substrate Material : Alumina
- Body : Epoxy Encapsulated
- Terminals : Tinned Copper wire
- Resistance Range : 10 Ω to 1M Ω
any odd value possible.
- High Precision : $\pm 0.05\%$, $\pm 0.1\%$, $\pm 0.2\%$, $\pm 0.5\%$, $\pm 1\%$
- Low TCR : ± 10 , ± 15 , ± 25 ppm/ $^{\circ}\text{C}$
(tested between 25°, 75° & 125°C)
 ± 5 ppm/ $^{\circ}\text{C}$ for values 100 Ω to 100K Ω

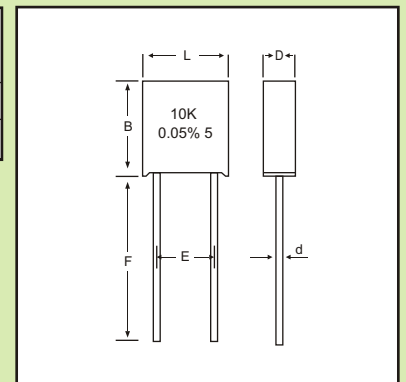
APPLICATIONS:

- Precision weighing scales
- Temperature and Chart recorder
- Calibration equipment
- Testing and measuring equipment
- High Precision amplifiers
- High end Audio equipment

RADIAL RESISTOR:

TYPE	POWER RATING @ 70°C	LEAD PITCH INCH	MAXIMUM WORKING VOLTAGE	RESISTOR RANGE	DIMENSIONS IN MM (max.)					
					L	B	D	E	F	d
AA	1/4W	0.2	350V	10 Ω to 1M	7.5	8.3	2.8	5.08	25.0	0.6

DIMENSIONS:



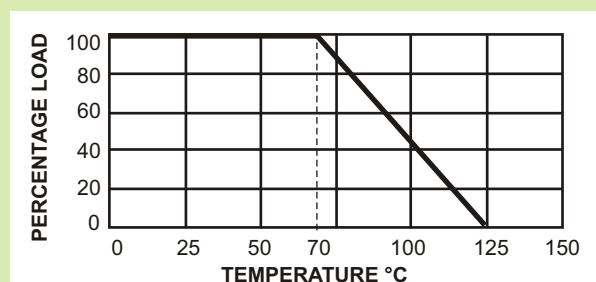
MARKING:

The resistors are marked with value tolerance and TCR for easy identification. Any customer code can be printed on the resistor depending on the space.

ORDERING INFORMATION:

1/4 W	AA	10K	0.05%	5 ppm/ $^{\circ}\text{C}$
Wattage	Type	Value	Tolerance	TCR

POWER DERATING CURVE:



PERFORMANCE:

Parameters	Specifications	Test Conditions
Operating Temperature Range	-55°C to +125°C	
Insulation Resistance	10,000M Ω	300 Volts, 1 minute
Temperature Cycling	+/- 0.05%	-55°C 30min, +125°C 30min, 5 cycles
Damp Heat	+/- 0.1%	40 °C, 90-95%RH, DC 0.1W, 1,000 hours
Short Time Overload	+/- 0.05%	2.5 times the Rated Voltage for 5 seconds
Load Life	+/- 0.1%	Rated Power at 70°C, 90min ON, 30min OFF, 1000 hours
Soldering Heat	+/- 0.03%	350°C, 3 seconds
Moisture Resistance	+/- 0.1%	+65°C to -10°C, 90-100%RH, Rated Voltage, 10 cycles (240 hours)
Solderability	Covered 95%	235 °C, 2 seconds
Solvent	No Damage	IPA test
Noise	< - 43dB	
Shelf Life Stability	+/- 0.03%	One year at 25°C



Integrated Electronics Technology Pvt. Ltd.

A -218, Road No. 16/V, Wagle Industrial Area, Thane 400 604. India
Tel: +91 22 25821053 Fax: +91 22 25822162
email: intron@vsnl.com / intron@mtnl.net.in

www.intronresistors.com