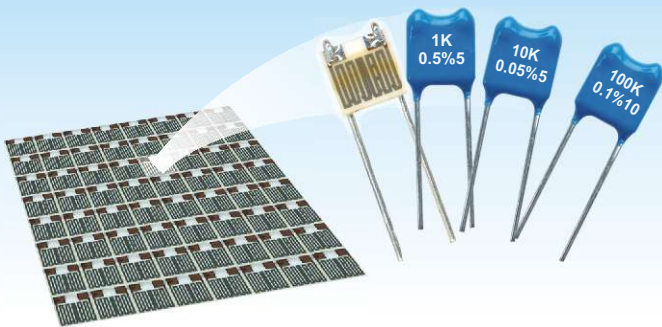



## RADIAL PRECISION RESISTORS (EPOXY COATED)

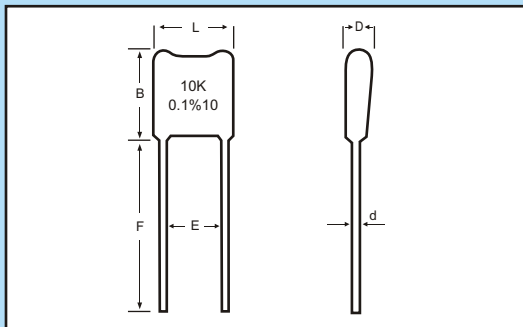


INTRON precision thin film resistors are made by vacuum depositing a controlled film of NiCr on high purity alumina substrate. The resistors are formed using high resolution photolithography. The values are micro trimmed to the exact value with a tolerance of 0.05%. The TCR and tolerance is obtained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

### SPECIFICATIONS:

PHOTO	TYPE	POWER RATING @ 70°C	LEAD PITCH INCH	MAXIMUM WORKING VOLTAGE	RESISTOR RANGE	DIMENSIONS IN MM (max.)					
						L	B	D	E	F	d
	LSAA	1/4W	0.2	350V	10Ω to 1M	7.0	7.5	2.3	5.08	10.0	0.5

### DIMENSIONS:



### FEATURES:

- High Precision:  $\pm 0.05\%$ ,  $\pm 0.1\%$ ,  $\pm 0.2\%$ ,  $\pm 0.5\%$ ,  $\pm 1\%$
- Low Temperature Co-efficient:  $\pm 5$ ,  $\pm 10$ ,  $\pm 15$ ,  $\pm 25$  ppm/°C (tested between 25°, 75° & 125°C)
- Wide Resistance Range: 10 ohm to 1M ohm with any odd value possible.
- Radial lead design: Lead pitch of 0.1", 0.2", 0.4" Lead frame design available on request.
- Wattage: 1/6W, 1/4W, 1/2W @ 70°C.

### APPLICATIONS:

Precision weighing scales, Temperature and Chart recorders, Calibration equipment, Testing and measuring equipment, High Precision amplifiers, Current Sensing, High end Audio equipment, etc.

### 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.

## 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, 1,000hours
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, 1000hours
Soldering Heat	+/-0.03%	350°C, 3seconds
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

## ORDERING INFORMATION:

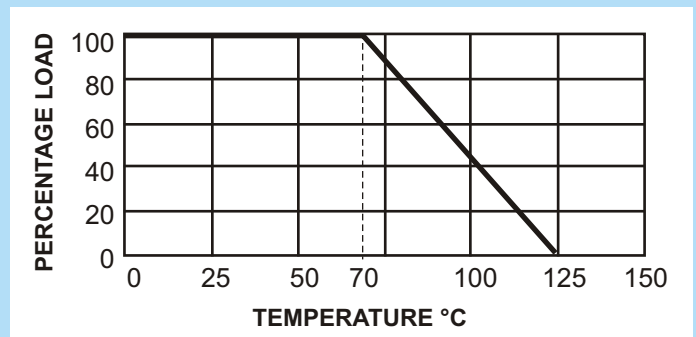
1/4 W	SAA	10K	0.1 %	10 ppm/°C
Wattage	Type	Value	Tolerance	TCR

## STANDARD TESTING PROCEDURE :

For 100% of the resistors:

1. Short time Overload in which 2.5 times the rated voltage (6.25 x rated power) is applied for 5 seconds.
2. Rated Wattage in which the rated voltage is dissipated in the resistor for 24 hours.
3. TCR measurement done at 25°C, 75°C and 125°C.
4. Resistance tolerance measured on 7 ½ DMM at 25°C.
5. Visual and Mechanical inspection.

## POWER DERATING CURVE:



# INTRON

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