

INTRON precision thin film voltage dividers are made by vacuum depositing a controlled film of NiCr on high purity prescored alumina substrate. The resistor is formed using high resolution photolithography. The patterns are designed such that no hot spots are created. The values are microtrimmed using laser to the exact value within a tolerance of 0.05%. The TCR and tolerance is obtained by process capability and does not rely on selection process. The leads are mechanically attached far from the soldering point with no chance of open circuit. The voltage dividers are coated with electronic grade epoxy powder using fluidized bed coating machine. They are printed with values, tolerance and TCR or as per customer requirement.

APPLICATIONS

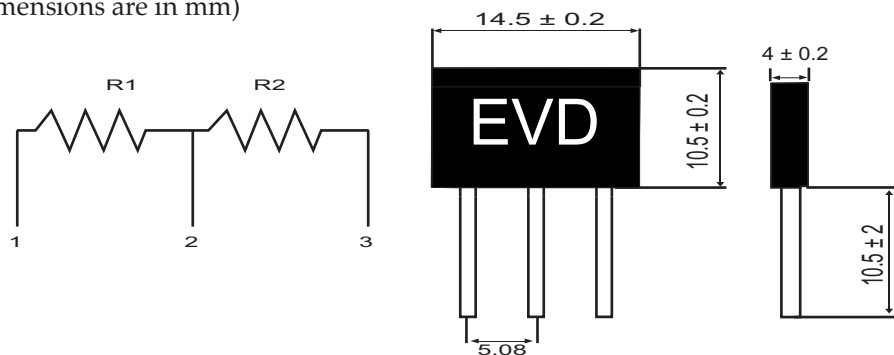
- Precision weighing scales
- Strain gauge calibration
- Calibration Equipment
- Precision Amplifier

MATERIAL OF CONSTRUCTION

- Resistive Material: NiCr
- Substrate : High purity Alumina
- Body: Encapsulated
- Leads: Tinned Copper Wire or lead frame
- RoHS compliant

DIMENSIONS :

EVD (Dimensions are in mm)



FEATURES

- Temperature Co-efficient (TCR) : $\pm 5, \pm 10, \pm 15, \pm 25$ ppm/ $^{\circ}\text{C}$ (Tested between $+25^{\circ}\text{C}$ & $+75^{\circ}\text{C}$)
- TCR tracking: $\pm 2, \pm 5, \pm 10, \pm 25$
- Rated Power per element: 0.25W @ 70°C
- Maximum working voltage per element: 100V
- Absolute tolerance : $\pm 0.05\%, \pm 0.1\%, \pm 0.2\%, \pm 0.5\%, \pm 1\%$
- Ratio matching: : $\pm 0.02\%, \pm 0.05\%, \pm 0.1\%, \pm 0.2\%, \pm 0.5\%$
- Resistance Range: 100 Ω to 100K Ω with any odd value possible
- Ratio between the values: 100
- Lead frame design available on request
- Non-inductive, non-capacitive design
- No MOQ, we can supply just 1 pc.
- For lower or higher values contact us
- Customized printing option on resistors

MARKING

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

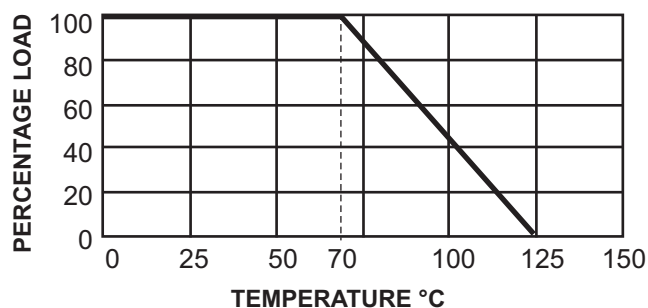
ORDERING INFORMATION:

EVD	47K5/2K5	1%	25ppm/ $^{\circ}\text{C}$	0.1%	3ppm/ $^{\circ}\text{C}$
Series	Values	Abs. Tolerance	Abs. TCR	Ratio Matching	TCR Tracking

STANDARD TESTING PROCEDURE FOR 100% OF OUR RESISTORS

1. Short time Overload in which 2.5 times the rated voltage (6.25 X rated power) or maximum rated overload voltage is applied for 5 seconds
2. TCR measurement done at +25°C and +75°C
3. Ageing at rated voltage done for 0.1% and 0.05% resistors to improve stability
4. Tolerance measurement on 7½ DMM at +25°C ± 2°C
5. Visual and mechanical inspection

DERATING CURVE:



PERFORMANCE:

Parameters	Specifications	Test Conditions
Operating Temperature Range	-55°C to +125°C	
Insulation Resistance	10,000M Ω	Apply 100 Vdc for 1 minute
Temperature Cycling	+/-0.05%	-55°C 30min, +125°C 30min, 5 cycles
Damp Heat	+/-0.1%	40 ± 2°C, 90-95%RH, DC 0.1W, 1,000 hours
Short Time Overload	+/- 0.05%	2.5 times the Rated Voltage or Max. Overload Voltage whichever is lower 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 hrs)
Solvent Test	No damage	IPA test
Solderability	Min. 95% coverage	235°C, 2 seconds
Noise	< -43dB	
Shelf Life Stability	+/- 0.03%	One year at 25°C

Reference Standards : MIL-STD-202, JSS 50401
MIL-PRF-SS342

All product's, product specifications and other data are subject to change without notice.

INTRON

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