

Type HVR Series



Tyco Electronics is a leading European supplier of high specification power resistors for specialist applications. The HVR range consists of high power, high voltage resistors capable of operating up to 50kV (continuous) and dissipating 50W in air or 100W oil. The thick film resistor element is designed to minimise inductance and capacitance giving optimum performance at MHz frequencies, and resistance to high voltage surges.

The resistors are made from quality materials for optimum reliability and stability. Tyco Electronics can test resistors to conform to relevant international, MIL or customer specifications.

Tyco Electronics is happy to advise on the use of resistors for pulse applications and to supply information for high voltage use and low-ohmic value, alternative mountings and termination type.

Key Features

- Highly Versatile Product
 - Resistance values from $2k\Omega$ to $1G\Omega$ and a range of mounting options
- 50 kV Continuous Operating Voltage
 - Unique specification for the most demanding applications
- Low Inductance and Capacitance
 - For high frequency applications into the MHz range
- **■** Established Product
 - High stability with proven reliability

Applications

- High Frequency Switching (MHz)
- Balancing
- Voltage Divider
- High Voltage

High Value / High Voltage Resistor

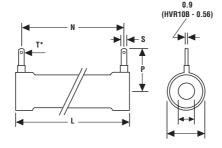


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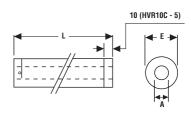
Characteristics -Electrical

	HVR10	HVR20	HVR30	HVR50		
Ohmic Value Min (Ω):	2k0	2k0	2k0	2k0		
Max:	1G0	1G0	1G0	1G0		
Resistor Tolerance - Standard (%):	10%	10%	10%	10%		
Options (R<400M):	5%, 1%	5%, 1%	5%, 1%	5%, 1%		
Power Dissipation at 20°C (W):	5W	15W	25W	50W		
At 70°C:	3W	10W	15W	25W		
In Oil at 20°C:	10W	30W	50W	100W		
Continuous Operating Voltage Max (V):	10kV	20kV	30kV	50kV		
Temperature Coefficient of Resistance						
20°C to 70°C (ppm/°C):	$< \pm 300$ ppm/°C $< \pm 300$ ppm/°C		< ±300ppm/°C	< 300ppm/°C		
Voltage Coefficient of Resistance - V > 100V (%):	< ±2%	< ±2%	< ±2%	< ±2%		
Stability ΔR - 1000h Load Life (%)	< ±2%	< ±2%	< ±2%	< ±2%		

Dimensions Style B

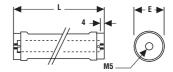


Style C



Style D





Style B

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Туре	Α	E	L	N	P	S	T	
HVR10	6.3	12.0	60.0	53.2	18.2	28	-	
HVR20	10.0	22.6	120.0	109.0	27.0	4.8	2.4	
HVR30	17.5	30.6	120.0	109.0	34.0	6.3	3.1	
HVR50	17.5	30.6	240.0	229.0	34.0	6.3	3.1	

Style C

Туре	Α	E	L	N	P	S	T
HVR10	6.3	10.5	60.0	-	-	-	-
HVR20	10.0	20.2	120.0	-	-	-	-
HVR30	17.5	28.2	120.0	-	-	-	-
HVR50	17.5	28.2	240.0	-	-	-	-

Style D

Type	Α	E	L	N	Р	S	T
HVR10	6.3	10.0	70.0	-	-	-	-
HVR20	10.0	21.5	140.0	-	-	-	-
HVR30	17.5	30.0	140.0	-	-	-	-
HVR50	17.5	30.0	260.0	-	-	-	-

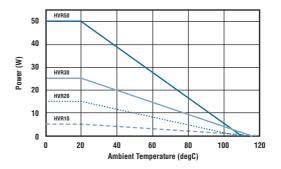






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Derating Curve



Surface Temperature Rise

