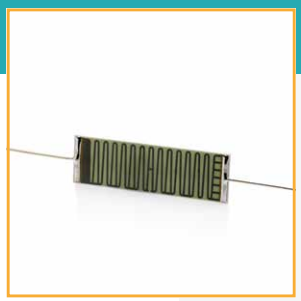
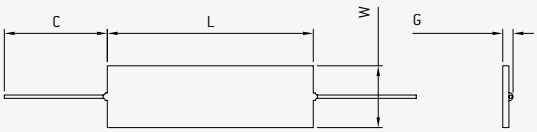
HIGH VOLTAGE RESISTORS HVR 967

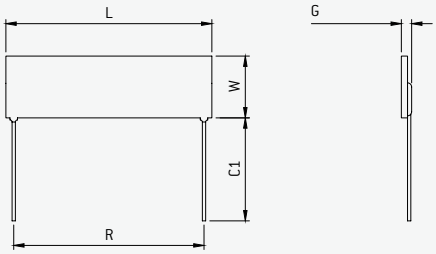
With their variety of designs, thick-film high voltage resistors offer ideal possibilities for mastering measuring, controlling and regulating processes in high voltage applications. Whether for high voltage pulses or for registering constant high voltages – with our HVR basic program we offer the ideal solution for all applications in high voltage engineering, high voltage network components, medical technology, electrostatics, the automotive industry and traffic engineering.



Axial wire connection

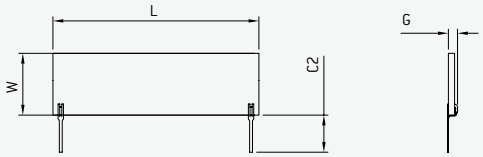


Radial wire connection



- Flat designs
- Pulse-proof
- Low inductance

Optional contact PIN



GENERAL TECHNICAL SPECIFICATIONS	
Resistance values, standard	5 K, 10 K, 100 K, 1 M, 5 M, 10 M, 25 M, 50 M, 100 M, 1 G, 2 G, 5 G
Tolerance	1 % (0.5 % – 20 %)*
Temperature coefficient	100 ppm/° C (25 ppm/° C – 200 ppm/° C)*
Voltage coefficient	<2 ppm/V
Insulation resistance	>10,000 MΩ (500 V 25° C 75 % relative humidity)
Dielectric strength of the insulation	>1,000 V (25° C 75 % relative humidity) ΔR/R 0.25 % max.
Thermal shock	ΔR/R 0.25 % max.
Overload capacity	1.5 x P[nom], 5 sec. (not 1.5 x V[max])
Moisture resistance	ΔR/R 0.25 %
Long-term stability	ΔR/R 0.25 % max.
Temperature range (operation / storage)	-55° C – +175° C (-55° C – +100° C)
Cover	Epoxy-based varnishes (glass, silicone-based encasing)
Connection type	Tinned copper wire Cu vz Ø 0.8 mm, axial or radial

Depending on ambient conditions, the characteristics of resistors can change. We recommend a suitability test under operational conditions.
Specifications are subject to change without notice. * Other values upon request.

TYPE SELECTION

TYPES	TCR (ppm/° C)	0.50 %	1 %	2 %	5 %	10 %	20 %
967.3.25 **1 W** **8 kV (air)** **12 kV (oil)**	25 50 100 200	5 K – 2 G 5 K – 2 G 5 K – 2 G 5 K – 2 G	2 K – 2 G 2 K – 2 G 2 K – 2 G 2 K – 2 G	2 K – 2 G 2 K – 2 G 2 K – 2 G 2 K – 2 G	2 K – 2 G 2 K – 2 G 2 K – 2 G 2 K – 2 G	2 K – 2 G 2 K – 2 G 2 K – 2 G 2 K – 2 G	2 K – 2 G 2 K – 2 G 2 K – 2 G 2 K – 2 G
967.3.38 **1.5 W** **10 kV (air)** **15 kV (oil)**	25 50 100 200	4 K – 500 M 4 K – 500 M 4 K – 500 M 4 K – 500 M	4 K – 3 G 4 K – 3 G 4 K – 3 G 4 K – 3 G	4 K – 3 G 4 K – 3 G 4 K – 3 G 4 K – 3 G	4 K – 3 G 4 K – 3 G 4 K – 3 G 4 K – 3 G	4 K – 3 G 4 K – 3 G 4 K – 3 G 4 K – 3 G	4 K – 3 G 4 K – 3 G 4 K – 3 G 4 K – 3 G
967.5.13 **1.0 W** **5 kV (air)** **7.5 kV (oil)**	25 50 100 200	3 K – 500 M 3 K – 500 M 3 K – 500 M 3 K – 500 M	2 K – 1 G 2 K – 1 G 2 K – 1 G 2 K – 1 G	2 K – 1 G 2 K – 1 G 2 K – 1 G 2 K – 1 G	2 K – 1 G 2 K – 1 G 2 K – 1 G 2 K – 1 G	2 K – 1 G 2 K – 1 G 2 K – 1 G 2 K – 1 G	2 K – 1 G 2 K – 1 G 2 K – 1 G 2 K – 1 G
967.7.51 **2 W** **20 kV (air)** **30 kV (oil)**	25 50 100 200	10 K – 400 M 10 K – 400 M 10 K – 400 M 10 K – 400 M	5 K – 5 G 5 K – 5 G 5 K – 5 G 5 K – 5 G	5 K – 5 G 5 K – 5 G 5 K – 5 G 5 K – 5 G	5 K – 5 G 5 K – 5 G 5 K – 5 G 5 K – 5 G	5 K – 5 G 5 K – 5 G 5 K – 5 G 5 K – 5 G	5 K – 5 G 5 K – 5 G 5 K – 5 G 5 K – 5 G
967.8.26 **2 W** **10 kV (air)** **15 kV (oil)**	25 50 100 200	10 K – 1 G 10 K – 1 G 10 K – 1 G 10 K – 1 G	5 K – 2 G 5 K – 2 G 5 K – 2 G 5 K – 2 G	5 K – 2 G 5 K – 2 G 5 K – 2 G 5 K – 2 G	5 K – 2 G 5 K – 2 G 5 K – 2 G 5 K – 2 G	5 K – 2 G 5 K – 2 G 5 K – 2 G 5 K – 2 G	5 K – 2 G 5 K – 2 G 5 K – 2 G 5 K – 2 G
967.13.38 **3 W** **15 kV (air)** **30 kV (oil)**	25 50 100 200	10 K – 1 G 10 K – 1 G 10 K – 1 G 10 K – 1 G	10 K – 5 G 10 K – 5 G 10 K – 5 G 10 K – 5 G	10 K – 5 G 10 K – 5 G 10 K – 5 G 10 K – 5 G	10 K – 5 G 10 K – 5 G 10 K – 5 G 10 K – 5 G	10 K – 5 G 10 K – 5 G 10 K – 5 G 10 K – 5 G	10 K – 5 G 10 K – 5 G 10 K – 5 G 10 K – 5 G
967.15.30 **3 W** **15 kV (air)** **30 kV (oil)**	25 50 100 200	10 K – 1 G 10 K – 1 G 10 K – 1 G 10 K – 1 G	10 K – 5 G 10 K – 5 G 10 K – 5 G 10 K – 5 G	10 K – 5 G 10 K – 5 G 10 K – 5 G 10 K – 5 G	10 K – 5 G 10 K – 5 G 10 K – 5 G 10 K – 5 G	10 K – 5 G 10 K – 5 G 10 K – 5 G 10 K – 5 G	10 K – 5 G 10 K – 5 G 10 K – 5 G 10 K – 5 G
967.15.51 **4.5 W** **30 kV (air)** **45 kV (oil)**	25 50 100 200	20 K – 1 G 20 K – 1 G 20 K – 1 G 20 K – 1 G	10 K – 5 G 10 K – 5 G 10 K – 5 G 10 K – 5 G	10 K – 5 G 10 K – 5 G 10 K – 5 G 10 K – 5 G	10 K – 5 G 10 K – 5 G 10 K – 5 G 10 K – 5 G	10 K – 5 G 10 K – 5 G 10 K – 5 G 10 K – 5 G	10 K – 5 G 10 K – 5 G 10 K – 5 G 10 K – 5 G
967.15.76 **5.5 W** **35 kV (air)** **52 kV (oil)**	25 50 100 200	10 K – 5 G 10 K – 5 G 10 K – 5 G 10 K – 5 G	20 K – 10 G 20 K – 10 G 20 K – 10 G 20 K – 10 G	20 K – 10 G 20 K – 10 G 20 K – 10 G 20 K – 10 G	20 K – 10 G 20 K – 10 G 20 K – 10 G 20 K – 10 G	20 K – 10 G 20 K – 10 G 20 K – 10 G 20 K – 10 G	20 K – 10 G 20 K – 10 G 20 K – 10 G 20 K – 10 G
967.25.90 **10 W** **45 kV (air)** **67 kV (oil)**	25 50 100 200	20 K – 5 G 20 K – 5 G 20 K – 5 G 20 K – 5 G	20 K – 10 G 20 K – 10 G 20 K – 10 G 20 K – 10 G	20 K – 10 G 20 K – 10 G 20 K – 10 G 20 K – 10 G	20 K – 10 G 20 K – 10 G 20 K – 10 G 20 K – 10 G	20 K – 10 G 20 K – 10 G 20 K – 10 G 20 K – 10 G	20 K – 10 G 20 K – 10 G 20 K – 10 G 20 K – 10 G

Other resistance values and temperature coefficients upon request.

DIMENSIONS

TYPES	W [width]	C1	G	L [length]	R [raster spacing]	Unit	Weight [g]
967.3.25	3.8 (0.2)	36 (1.42)	2.5 (0.1)	25.4 (1.0)	22.9 (0.9)	mm (inches)	0.70
967.3.38	3.8 (0.15)	36 (1.42)	2.5 (0.1)	38.0 (1.5)	35.7 (1.41)	mm (inches)	0.52
967.5.13	5.0 (0.2)	36 (1.42)	2.5 (0.1)	12.7 (0.5)	10.2 (0.4)	mm (inches)	0.54
967.7.51	7.0 (0.3)	36 (1.42)	2.5 (0.1)	51.9 (2.04)	48.0 (1.89)	mm (inches)	1.60
967.8.26	8.0 (0.31)	36 (1.42)	2.5 (0.1)	25.4 (1.0)	22.5 (0.89)	mm (inches)	0.93
967.13.38	13.0 (0.51)	36 (1.42)	2.5 (0.1)	38.5 (1.52)	36.0 (1.42)	mm (inches)	2.20
967.15.30	15.0 (0.59)	36 (1.42)	2.5 (0.1)	30.0 (1.18)	22.1 (0.87)	mm (inches)	2.00
967.15.51	15.0 (0.59)	36 (1.42)	2.5 (0.1)	50.8 (2.0)	48.3 (1.9)	mm (inches)	3.42
967.15.76	15.5 (0.61)	36 (1.42)	2.5 (0.1)	76.2 (3.0)	73.20 (2.88)	mm (inches)	5.10
967.25.90	25.4 (1.0)	36 (1.42)	2.5 (0.1)	88.9 (3.45)	85.6 (3.37)	mm (inches)	10.0

Optional contact PIN - C2: 9 (0.35)

SAMPLE ORDER

HVR 967.3.38 Type	A Connections	B Cover	100M Resistance value	1 % Tolerance	TC25 Temperature coefficient
	A = axial*	G = glass	R = Ω	0.5 %	25 ppm/° C
	R = radial*	**B = operation in air***	K = KΩ	**1.0 %***	50 ppm/° C
	P = PIN	D = operation in oil	M = MΩ	2.0 %	**100 ppm/° C***
		U = encasing	G = GΩ	5.0 %	200 ppm/° C
				10.0 %	
				20.0 %	

* standard

DERATING CURVE