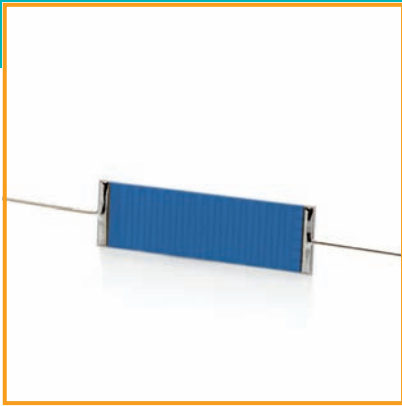


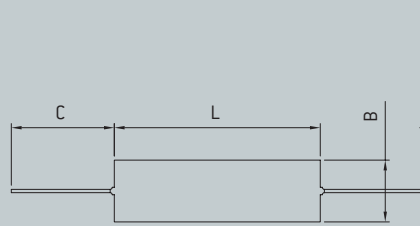
HIGH VOLTAGE PRECISION RESISTORS HPR 967



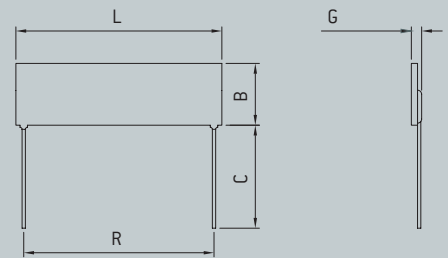
High voltage precision resistors were developed specifically for high value measuring applications. The design provides outstanding features for implementation in devices with extremely high precision and reliable function. We offer the ideal solution for all applications in high voltage engineering, in mass spectrometers, in high voltage network components and in medical technology.



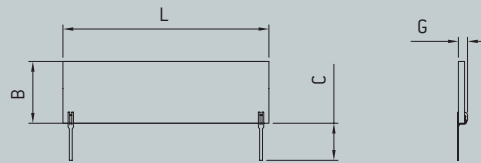
Soldered axially



Soldered radially



Contact pins on request



- Flat shape
- Outstanding stability
- Very low inductance
- Minimal drift

GENERAL TECHNICAL SPECIFICATIONS

Tolerance	0.1 % to 20 %*
Temperature coefficient	15 ppm/°C to 200 ppm/°C*
Voltage coefficient	0.08 ppm/V to 0.75 ppm/V (depending on size and layout)
Insulation resistance	10,000 MΩ (500 V 25 °C 75 % relative humidity)
Dielectric strength	>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], 5s (do not exceed 1.5 x V[max])
Moisture resistance	ΔR/R 0.25 % max.
Long-term stability	ΔR/R 0.25 % max.
Temperature range (operation / storage)	-55 °C to +175 °C (-55 °C to +100 °C)
Encapsulation	Epoxy-based coating (glass, silicone-based encasing)
Lead material	Connection wires Ø 0.8, tinned Cu, axial or radial (optional silvered Cu or PIN)

Depending on ambient conditions, the characteristics of resistors can change. We recommend a suitability test under operational conditions.

* Other values upon request.

TYPE SELECTION

TYPES	TCR (PPM/°C)	0.1%	0.25%	0.5%	1%	2%	5%	10%	20%
967.3.25 0.7 W 8 kV (air) 12 kV (oil)	15/25	5 k - 2 G	2 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
	50	5 k - 2 G	2 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
	100	5 k - 2 G	2 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
	200	5 k - 2 G	2 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
967.3.38 1.0 W 10 kV (air) 15 kV (oil)	15/25	4 k - 500 M	4 k - 3 G	4 k - 500 M	4 k - 3 G	4 k - 3 G	4 k - 3 G	4 k - 3 G	4 k - 3 G
	50	4 k - 500 M	4 k - 3 G	4 k - 500 M	4 k - 3 G	4 k - 3 G	4 k - 3 G	4 k - 3 G	4 k - 3 G
	100	4 k - 500 M	4 k - 3 G	4 k - 500 M	4 k - 3 G	4 k - 3 G	4 k - 3 G	4 k - 3 G	4 k - 3 G
	200	4 k - 500 M	4 k - 3 G	4 k - 500 M	4 k - 3 G	4 k - 3 G	4 k - 3 G	4 k - 3 G	4 k - 3 G
967.5.13 0.7 W 5 kV (air) 7.5 kV (oil)	15/25	3 k - 500 M	2 k - 1 G	3 k - 500 M	2 k - 1 G	2 k - 1 G	2 k - 1 G	2 k - 1 G	2 k - 1 G
	50	3 k - 500 M	2 k - 1 G	3 k - 500 M	2 k - 1 G	2 k - 1 G	2 k - 1 G	2 k - 1 G	2 k - 1 G
	100	3 k - 500 M	2 k - 1 G	3 k - 500 M	2 k - 1 G	2 k - 1 G	2 k - 1 G	2 k - 1 G	2 k - 1 G
	200	3 k - 500 M	2 k - 1 G	3 k - 500 M	2 k - 1 G	2 k - 1 G	2 k - 1 G	2 k - 1 G	2 k - 1 G
967.8.26 1.4 W 10 kV (air) 15 kV (oil)	15/25	10 k - 1 G	5 k - 2 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
	50	10 k - 1 G	5 k - 2 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
	100	10 k - 1 G	5 k - 2 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
	200	10 k - 1 G	5 k - 2 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
967.13.38 2.0 W 15 kV (air) 22 kV (oil)	15/25	10 k - 1 G	10 k - 5 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
	50	10 k - 1 G	10 k - 5 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
	100	10 k - 1 G	10 k - 5 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
	200	10 k - 1 G	10 k - 5 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
967.15.30 2.0 W 15 kV (air) 22 kV (oil)	15/25	10 k - 1 G	10 k - 5 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
	50	10 k - 1 G	10 k - 5 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
	100	10 k - 1 G	10 k - 5 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
	200	10 k - 1 G	10 k - 5 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
967.15.51 3.0 W 30 kV (air) 45 kV (oil)	15/25	20 k - 1 G	10 k - 5 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
	50	20 k - 1 G	10 k - 5 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
	100	20 k - 1 G	10 k - 5 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
	200	20 k - 1 G	10 k - 5 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
967.25.90 8.0 W 45 kV (air) 70 kV (oil)	15/25	20 k - 5 G	20 k - 10 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
	50	20 k - 5 G	20 k - 10 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
	100	20 k - 5 G	20 k - 10 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
	200	20 k - 5 G	20 k - 10 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

Other resistance values upon request

DIMENSIONS

TYPES	B [width]	C	G	L [length]	R [raster spacing]	Unit
967.3.25	3.8 (0.2)	9 (0.35)	2.5 (0.1)	25.4 (1.0)	22.9 (0.9)	mm (inches)
967.3.38	3.8 (0.15)	9 (0.35)	2.5 (0.1)	38.0 (1.5)	35.7 (1.41)	mm (inches)
967.5.13	5.0 (0.2)	9 (0.35)	2.5 (0.1)	12.7 (0.5)	10.2 (0.4)	mm (inches)
967.7.51	7.0 (0.3)	36 (1.42)	2.5 (0.1)	51.9 (2.04)	48.0 (1.89)	mm (inches)
967.8.26	8.0 (0.31)	36 (1.42)	2.5 (0.1)	25.4 (1.0)	22.5 (0.89)	mm (inches)
967.13.38	13.0 (0.51)	36 (1.42)	2.5 (0.1)	38.5 (1.52)	36.0 (1.42)	mm (inches)
967.15.30	15.0 (0.59)	36 (1.42)	2.5 (0.1)	30.0 (1.18)	22.1 (0.87)	mm (inches)
967.15.51	15.0 (0.59)	36 (1.42)	2.5 (0.1)	50.8 (2.0)	48.3 (1.9)	mm (inches)
967.15.76	15.5 (0.61)	36 (1.42)	2.5 (0.1)	76.2 (3.0)	73.20 (2.88)	mm (inches)
967.25.90	25,4 (1,0)	36 (1,42)	2,5 (0,1)	88,9 (3,54)	85,6(3,37)	mm (inches)

SAMPLE ORDER

HPR 967.3.38 Type	A Connections	B Cover	100 M Resistance value	1% Tolerance	TC25 Temperature coefficient
	A = axial	G = glass	R = Ω	0.5%	15 ppm/°C
	R = radial	B = operation in air	k = kΩ	1.0%	25 ppm/°C
	P = PIN	D = operation in oil	M = MΩ	2.0%	50 ppm/°C
		E = epoxy	G = GΩ	5.0%	100 ppm/°C
		U = encasing		10.0%	
				20.0%	

LOAD CURVE

