



# Metal Oxide Resistors, Special Purpose, High Voltage



### **FEATURES**

Low TCR: ± 200 ppm/°C standard; ± 100 ppm/°C; ± 50 ppm/°C available



Tolerance:  $\pm$  1 % standard to 1 G $\Omega$ ;  $\pm$  5 % above 1 G $\Omega$ ;  $\pm$  0.5 % available in  $\pm$  50 ppm/°C only. Special tolerance and/or temperature coefficient matching available.

COMPLIANT

- High voltage (up to 8 kV)
- For oil bath or open air operation
- Matched sets available
- Special testing available upon request
- Material categorization: For definitions of compliance please see <a href="https://www.vishay.com/doc?99912"><u>www.vishay.com/doc?99912</u></a>

Lead (Pb)-containing terminations are not RoHS-compliant. Exemptions may apply.

STANDARD ELECTRICAL SPECIFICATIONS								
	HISTORICAL MODEL	POWER RATING			MAXIMUM	RESISTANCE		TEMPERATURE
GLOBAL MODEL		P <sub>25 °C</sub> <sup>(1)</sup>	<i>P</i> <sub>70 °C</sub> <sup>(1)</sup> W	P <sub>125 °C</sub> <sup>(1)</sup>	WORKING VOLTAGE <sup>(2)</sup> V	RANGE <sup>(3)</sup> Ω	TOLERANCE ± %	COEFFICIENT ± ppm/°C
	RNX-1/4	0.5	0.36	0.25	750	1M to 22M	0.5, 1, 2, 5, 10	50
RNX025						1K to 100M	1, 2, 5, 10	100, 200
						100 to 100K	1, 2, 5, 10	Non-inductive (4)
	RNX-3/8	1.0	0.72	0.5	1.5K	1M to 50M	0.5, 1, 2, 5, 10	50
DNI)/000						1K to 100M	1, 2, 5, 10	100
RNX038						1K to 1G	1, 2, 5, 10	200
						100 to 100K	1, 2, 5, 10	Non-inductive (4)
	RNX-1/2	1.2	0.86	0.6	2K	1M to 100M	0.5, 1, 2, 5, 10	50
DNIVOEO						1K to 250M	1, 2, 5, 10	100
RNX050						1K to 2G	1, 2, 5, 10	200
						100 to 100K	1, 2, 5, 10	Non-inductive (4)
	RNX-3/4	2.0	1.44	1.0	3K	1M to 100M	0.5, 1, 2, 5, 10	50
RNX075						1K to 500M	1, 2, 5, 10	100
HIVAU/5						1K to 2G	1, 2, 5, 10	200
						100 to 100K	1, 2, 5, 10	Non-inductive (4)
	RNX-1	2.5	1.8	1.25	4K	1M to 100M	0.5, 1, 2, 5, 10	50
RNX100						1K to 500M	1, 2, 5, 10	100
HINATUU						1K to 2G	1, 2, 5, 10	200
						100 to 1M	1, 2, 5, 10	Non-inductive (4)
	RNX-1-1/4	3.0	2.16	1.5	5K	1K to 500M	1, 2, 5, 10	100
RNX125						1K to 2G	1, 2, 5, 10	200
						100 to 1M	1, 2, 5, 10	Non-inductive (4)
RNX150	RNX-1-1/2	4.0	2.88	2.0	6K	1K to 500M	1, 2, 5, 10	100
						1K to 2G	1, 2, 5, 10	200
						100 to 1M	1, 2, 5, 10	Non-inductive (4)
	RNX-2	5.0	3.6	2.5	8K	1K to 500M	1, 2, 5, 10	100
RNX200						1K to 2G	1, 2, 5, 10	200
						100 to 1M	1, 2, 5, 10	Non-inductive (4)

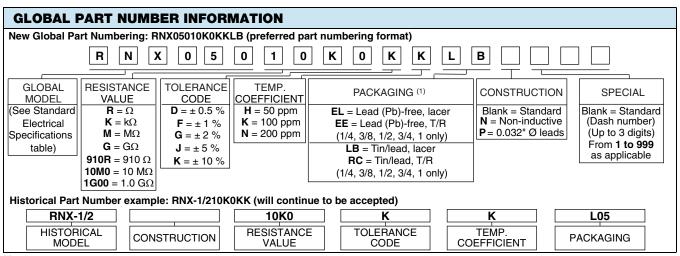
All resistance values are calibrated at 100 V<sub>DC</sub>. Calibration at other voltages available.
Part marking: Print marked - DALE, model, value, tolerance, TCR, date code (model and date omitted on RNX-1/4)
Special modifications:
- Special preconditioning (power aging, temperature cycling etc.) to customer specifications
- Non-helixed resistors can be supplied for critical high frequency applications (non-inductive)
Increase wattage by 25 % for 0.032 (0.813 mm) diameter leads
Continuous working voltage shall be  $\sqrt{P} \times R$  or maximum working voltage, whichever is less.

For resistance values above and below those listed please contact us

Non-inductive ± 200 ppm/°C TCR only

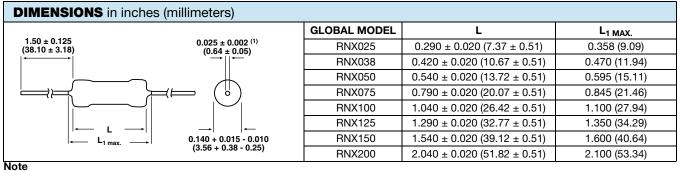


TECHNICAL SPECIFICATIONS									
PARAMETER	UNIT	RNX025	RNX038	RNX050	RNX075	RNX100	RNX125	RNX150	RNX200
Insulation Resistance	Ω	≥ 10 <sup>11</sup>							
Category Temperature Range	°C	Epoxy coated = - 55/+ 150; silicone coated = - 55/+ 225							

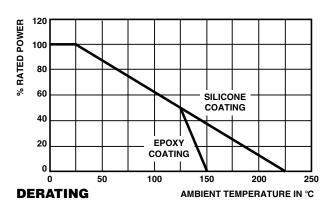


### **Notes**

- (1) Some packaging codes are model specific
- For additional information on packaging, refer to the Through-Hole Resistor Packaging document (<u>www.vishay.com/doc?31544</u>).



(1) Available with 0.032" (0.813 mm) leads ± 0.002" (0.051 mm)



MATERIAL SPECIFICATIONS					
Element	High temperature fired cermet film				
Core	High purity 96 % alumina				
Coating	Flame-retardant epoxy on RNX025 and RNX038, flameproof silicone on RNX050 to RNX200				
Termination	Standard lead material is solder-coated copper. Solderable and weldable.				

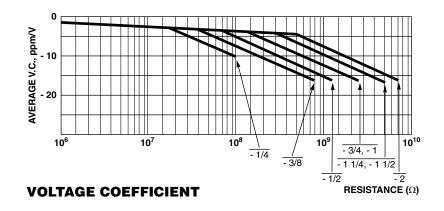
MECHANICAL SPECIFICATIONS				
Terminal Strength	5 pound pull test			
Solderability	Continuous satisfactory coverage when tested in accordance with MIL-STD-202, method 208			





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## Vishay:

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RNX02545M0FKLB RNX038750RFNLBN RNX03810M0FNLB RNX038100MFKRB RNX0502M00FKLB
RNX038200MJKR6 RNX025100MFKRE RNX038200MFKLB RNX05010M0FHLB RNX07568K1FNLB
RNX03810K0KNLB RNX03815K0KNLB RNX0381K00KNLB RNX10055M0JKLB RNX02510M0FKLB
RNX02520M0FKLB RNX02530M0FKLB RNX3/8 220M 1%M RNX2002M20FKLB RNX02513M0FKLB
RNX02515M0FKLB RNX0251M00FKLB RNX0383M30FNLB RNX050150KFKLB RNX0755M00JKLB
RNX02540M2FNLB RNX038470MFNEB RNX07547K5JNLB RNX1253K90FNELN RNX038200RFNLBN
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RNX025100MFKEL RNX025100MJNEL RNX0251M00FKEL RNX038100MFKEL RNX03810M0FKEL
RNX03815M0FKEL RNX0381M00FKEL RNX0382M20FKEL RNX0254M75FKLB RNX1/4 6.98M 1%K
RNX0381G00GNEL RNX0381M30JKLB RNX025100MJNWF RNX02511M0FKLB RNX02512M1FKLB
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