THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE. THE PRODUCTS DESCRIBED HEREIN AND THIS DOCUMENT

ARE SUBJECT TO SPECIFIC DISCLAIMERS, SET FORTH AT www.vishay.com/doc?91000

Vishay Dale

TEMPERATURE

Document Number: 31032

RNX

## Metal Oxide Resistors, Special Purpose, High Voltage

### **FEATURES**

- 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.
- High voltage (up to 8 kV)

RESISTANCE

- For oil bath or open air operation
- Matched sets available
- Special testing available upon request
- Material categorization: For definitions of compliance please see <u>www.vishay.com/doc?99912</u>

MAXIMUM

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

GLOBAL MODEL	HISTORICAL MODEL	P <sub>25 °C</sub> <sup>(1)</sup> W	P <sub>70 °C</sub> <sup>(1)</sup> W	P <sub>125 °C</sub> <sup>(1)</sup> W	WORKING VOLTAGE <sup>(2)</sup> V	RANGE $(3)$ $\Omega$	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 <sup>(4)</sup>
	RNX-3/8	1.0	0.72	0.5	1.5K	1M to 50M	0.5, 1, 2, 5, 10	50
RNX038						1K to 100M	1, 2, 5, 10	100
<b>HINAU30</b>						1K to 1G	1, 2, 5, 10	200
						100 to 100K	1, 2, 5, 10	Non-inductive <sup>(4)</sup>
	RNX-1/2	1.2	0.86	0.6	2К	1M to 100M	0.5, 1, 2, 5, 10	50
						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 <sup>(4)</sup>
RNX075	RNX-3/4	2.0	1.44	1.0	ЗК	1M to 100M	0.5, 1, 2, 5, 10	50
						1K to 500M	1, 2, 5, 10	100
						1K to 2G	1, 2, 5, 10	200
						100 to 100K	1, 2, 5, 10	Non-inductive <sup>(4)</sup>
RNX100	RNX-1	2.5	1.8	1.25	4К	1M to 100M	0.5, 1, 2, 5, 10	50
						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 <sup>(4)</sup>
	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 <sup>(4)</sup>
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 <sup>(4)</sup>
	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 <sup>(4)</sup>
Notes								

#### Notes

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.

(1)

(2)

(3) For resistance values above and below those listed please contact us

(4) Non-inductive ± 200 ppm/°C TCR only

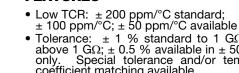




NIK Jil

STANDARD ELECTRICAL SPECIFICATIONS

**POWER RATING** 



Note

www.vishay.com

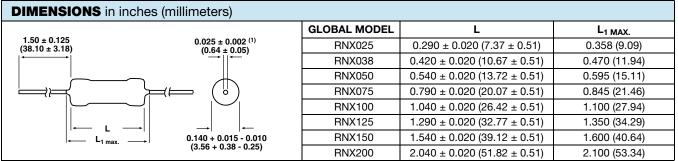
## Vishay Dale

TECHNICAL SPECIFICATIONS												
PARAMETER		UNIT	RNX025	RNX038	RNX050	RNX075	R	NX100	RNX12	25 F	RNX150	RNX200
Insulation Resistance		Ω	≥ 10 <sup>11</sup>									
Category Temperature Range		°C	Epoxy coated = - 55/+ 150; silicone coated = - 55/+ 225									
	PART NUMB	X05010K	-	-	numbering fo	ormat)		В				
GLOBAL		TOLERAN						 				CIAL
MODEL (See Standard Electrical Specifications table)	$\mathbf{R} = \Omega$ $\mathbf{K} = \mathbf{k}\Omega$ $\mathbf{M} = \mathbf{M}\Omega$ $\mathbf{G} = \mathbf{G}\Omega$	5 % H = % K =	FICIENT 50 ppm 100 ppm 200 ppm	EL = Lead (Pb)-free, lacer EE = Lead (Pb)-free, T/R (1/4, 3/8, 1/2, 3/4, 1 only) LB = Tin/lead, lacer			Blank = Standard $N = Non-inductiveP = 0.032" Ø leadsBlank = Standard(Dash number(Up to 3 digitFrom 1 to 99)$			Standard number) 3 digits)		
	<b>910R</b> = 910 Ω <b>10M0</b> = 10 ΜΩ <b>1G00</b> = 1.0 GΩ	$\mathbf{K} = \pm 10$			<b>RC</b> = T	n/lead, T/R /2, 3/4, 1 on					as app	olicable
Historical Part	Number example	e: RNX-1/2	10K0KK (w	vill continue	to be accept	ed)						
RNX-1/2				10K0		К		К			L05	
HISTORICAL MODEL CONS		TRUCTIO		SISTANCE VALUE		RANCE DDE	C	TEMP. COEFFICIENT		PACKAGING		IG

Notes

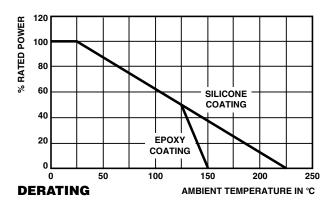
<sup>(1)</sup> Some packaging codes are model specific

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



Note

<sup>(1)</sup> Available with 0.032" (0.813 mm) leads ± 0.002" (0.051 mm)



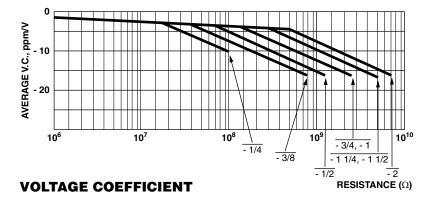
MATERIAL SPECIFICATIONS						
Element	High temperature fired cermet film					
Core	High purity 96 % alumina					
Coating	Flame-retardant epoxy on RNX025 and RNX038, flameproof silicone on RNX050 to RNX200					
Termination	Standard lead material is solder-coated copper. Solderable and weldable.					

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

THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE. THE PRODUCTS DESCRIBED HEREIN AND THIS DOCUMENT ARE SUBJECT TO SPECIFIC DISCLAIMERS, SET FORTH AT www.vishay.com/doc?91000

**RNX** Vishay Dale







Vishay

## Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay's knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and/or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.

## **Material Category Policy**

Vishay Intertechnology, Inc. hereby certifies that all its products that are identified as RoHS-Compliant fulfill the definitions and restrictions defined under Directive 2011/65/EU of The European Parliament and of the Council of June 8, 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (EEE) - recast, unless otherwise specified as non-compliant.

Please note that some Vishay documentation may still make reference to RoHS Directive 2002/95/EC. We confirm that all the products identified as being compliant to Directive 2002/95/EC conform to Directive 2011/65/EU.

Vishay Intertechnology, Inc. hereby certifies that all its products that are identified as Halogen-Free follow Halogen-Free requirements as per JEDEC JS709A standards. Please note that some Vishay documentation may still make reference to the IEC 61249-2-21 definition. We confirm that all the products identified as being compliant to IEC 61249-2-21 conform to JEDEC JS709A standards.

# **X-ON Electronics**

Largest Supplier of Electrical and Electronic Components

Click to view similar products for vishay manufacturer:

Other Similar products are found below :

M39006/22-0577H Y00892K49000BR13L M8340109M6801GGD03 VS-MBRB1545CTPBF 1KAB100E CRCW1210360RFKEA VSMF4720-GS08 CRCW04024021FRT7 001789X LT0050FR0500JTE3 CRCW0805348RFKEA LVR10R0200FE03 CRCW12063K30FKEAHP 009923A CRCW2010331JR02 CRCW25128K06FKEG CS6600552K000B8768 M39003/01-2289 M39003/01-2784 M39006/25-0133 M39006/25-0228 M64W101KB40 M64Z501KB40 CW001R5000JS73 CW0055R000JE12 CW0056K800JB12 CW0106K000JE73 672D826H075EK5C CWR06JC105KC CWR06NC475JC MAL219699001E3 MCRL007035R00JHB00 GBU4K-E3/51 GBU8M-E3/51 PTF56100K00QYEK PTN0805H1502BBTR1K RCWL1210R130JNEA RH005220R0FE02 RH005330R0FC02 RH010R0500FC02 132B20103 RH1007R000FJ01 RH2503R500FE01 RH254R220FS03 RH-50-40R2-1%-C02 134D336X9075C6 132B00301 135D277X0025F6 DG202BDY-T1-E3 DG9426EDQ-T1-GE3