

Wirewound Resistors, Noise Suppressor



FEATURES

- Ideal for reducing RFI during electrical discharges on gasoline engines
- Variety of resistance and inductance values available
- Special design of electrical contacts upon request
- Capability to withstand high voltage pulses at high frequency
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912



RoHS
COMPLIANT
HALOGEN
FREE
GREEN
(5-2008)

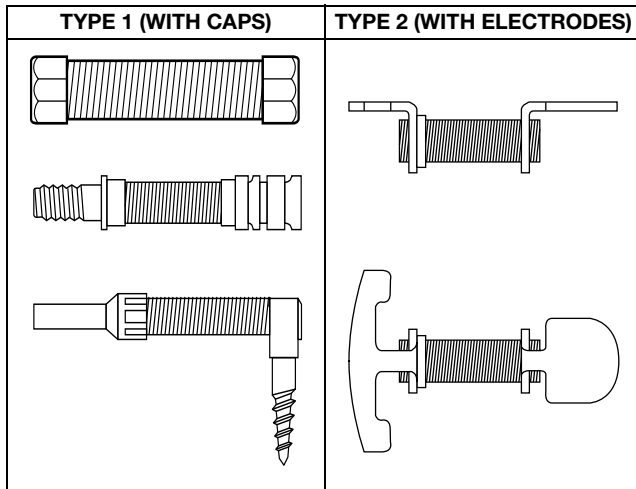
STANDARD ELECTRICAL SPECIFICATIONS		
MODEL	RESISTANCE RANGE ⁽¹⁾ Ω	TOLERANCE ⁽²⁾ ± %
2306309 = NSR	1K to 15K	10, 15, 20

Notes

- (1) Special resistance values available upon request.
 (2) Other tolerances available upon request.

TECHNOLOGY

The resistor element is a resistive wire, which is wound in a single layer on a fiberglass core. Metallic caps or electrodes are fixed to the ends of the resistive core, following the specific ignition system characteristics. A coating protects the resistive element against moisture and mechanical shock, plus is able to withstand high temperatures. These products can be molded with epoxy resin, thermoplastic or thermo set materials.



TECHNICAL SPECIFICATIONS		
PARAMETER	UNIT	NSR RESISTOR CHARACTERISTICS
Inductance Range, 2 MHz ⁽³⁾	μH	5 to 56
Temperature Coefficient	ppm/°C	± 250
Operating Temperature Range	°C	-40 to +180

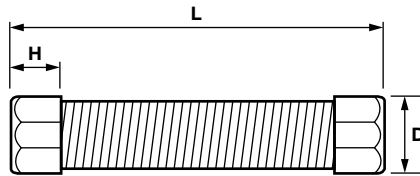
Note

- (3) Special inductance values available upon request.

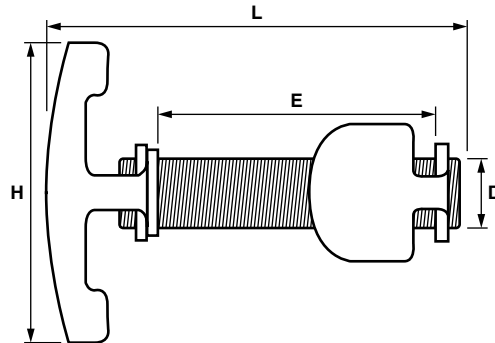
GLOBAL PART NUMBER INFORMATION																	
Global Part Number Example: 230630990078000001 = NSR-1078 1 kΩ ± 20 %, 10 μH, E51 (visit www.vishay.net Vishay Dale parts numbering manual for all options)																	
2	3	0	6	3	0	9	9	0	0	7	8	0	0	0	0	0	1
NSR MODEL (7 digits) 2306309 = NSR							TYPE (5 digits) TYPE 1 = NSR-1xxx TYPE 2 = NSR-2xxx Example: 90078 = 1078 90079 = 2079					SPECIAL (6 digits) 000001 = Crimped caps 000002 to 999999 as applicable					

Note

- For examples of full Global Part Numbers, please pages 2 and 3. Many other custom part numbers are available.

TYPE 1 - NOISE SUPPRESSOR WITH CAPS
ELECTRICAL AND DIMENSIONAL DATA in inches [millimeters]


GLOBAL PART NUMBER	ELECTRICAL DATA			DIMENSIONAL DATA		
	VALUE	TOLERANCE	INDUCTANCE TYPICAL	L	D	H
230630990035000001	5 kΩ	± 20 %	20 μH	0.79 [20.0]	0.153 [3.88]	0.112 [2.85]
230630990047000001	5 kΩ	± 15 %	15 μH	0.66 [16.8]	0.124 [3.15]	0.094 [2.40]
230630990048000001	1 kΩ	+20 %, -10 %	15 μH	0.66 [16.8]	0.124 [3.15]	0.094 [2.40]
230630990053000001	5 kΩ	± 20 %	18 μH	0.93 [23.7]	0.153 [3.88]	0.112 [2.85]
230630990078000001	1 kΩ	± 20 %	10 μH	0.93 [23.7]	0.153 [3.88]	0.112 [2.85]
230630990085000001	1 kΩ	± 20 %	9 μH	1.02 [26.0]	0.153 [3.88]	0.112 [2.85]
230630990086000001	1 kΩ	± 20 %	5 μH	0.79 [20.0]	0.153 [3.88]	0.112 [2.85]
230630990094000001	5 kΩ	± 20 %	16 μH	0.93 [23.7]	0.153 [3.88]	0.112 [2.85]
230630990095000001	15 kΩ	± 20 %	12 μH	1.08 [27.3]	0.15 [3.82]	0.112 [2.85]
230630990101000001	1.12 kΩ	± 20 %	13 μH	0.47 [11.9]	0.171 [4.35]	0.112 [2.85]
230630990105000001	2 kΩ	± 20 %	20 μH	0.53 [13.5]	0.171 [4.35]	0.112 [2.85]
230630990106000001	2 kΩ	± 20 %	21 μH	1.08 [27.3]	0.153 [3.88]	0.112 [2.85]
230630990107000001	2 kΩ	± 20 %	11 μH	0.79 [20.0]	0.153 [3.88]	0.112 [2.85]
230630990108000001	5 kΩ	± 20 %	10 μH	0.93 [23.7]	0.153 [3.88]	0.112 [2.85]
230630990112000001	2 kΩ	± 20 %	25 μH	1.02 [26.0]	0.153 [3.88]	0.112 [2.85]

TYPE 2 - NOISE SUPPRESSOR WITH ELECTRODES
ELECTRICAL AND DIMENSIONAL DATA in inches [millimeters]


GLOBAL PART NUMBER	ELECTRICAL DATA			DIMENSIONAL DATA			
	VALUE	TOLERANCE	INDUCTANCE TYPICAL	L	D	H	E
230630990008000000	5 kΩ	+20 %, -10 %	50 μH	1.35 [34.3]	0.16 [3.9]	0.43 [11.0]	0.93 [23.5]
230630990009000000	4.5 kΩ	± 10 %	17 μH	1.04 [26.3]	0.12 [3.0]	0.42 [10.5]	0.57 [14.4]
230630990014000000	5 kΩ	± 10 %	19 μH	1.19 [30.2]	0.12 [3.0]	0.42 [10.5]	0.58 [14.8]
230630990021000000	5.3 kΩ	± 15 %	56 μH	1.35 [34.3]	0.16 [3.9]	0.71 [18.0]	0.93 [23.5]
230630990027000000	1.1 kΩ	± 15 %	9 μH	1.17 [29.7]	0.154 [3.9]	0.71 [18.0]	0.42 [10.6]
230630990029000000	1.1 kΩ	± 15 %	8.5 μH	1.17 [29.7]	0.16 [3.9]	0.43 [11.0]	0.42 [10.6]
230630990038000000	1 kΩ	± 10 %	5 μH	1.19 [30.2]	0.12 [2.95]	0.42 [10.5]	0.58 [14.8]
230630990055000000	5.2 kΩ	± 13 %	54 μH	1.34 [34.1]	0.16 [3.9]	0.32 [8.15]	0.93 [23.5]
230630990057000000	1 kΩ	± 10 %	5 μH	1.19 [30.2]	0.12 [3.0]	0.71 [18.0]	0.58 [14.8]
230630990058000000	5 kΩ	± 10 %	20 μH	1.19 [30.2]	0.12 [3.0]	0.71 [18.0]	0.58 [14.8]
230630990069000000	1 kΩ	± 10 %	4 μH	1.39 [35.3]	0.12 [3.0]	0.71 [18.0]	0.81 [20.4]
230630990079000000	5 kΩ	± 10 %	16 μH	1.35 [34.25]	0.12 [3.0]	0.71 [18.0]	0.76 [19.2]

Note

- Other electrode designs available under request.



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.

Hyperlinks included in this datasheet may direct users to third-party websites. These links are provided as a convenience and for informational purposes only. Inclusion of these hyperlinks does not constitute an endorsement or an approval by Vishay of any of the products, services or opinions of the corporation, organization or individual associated with the third-party website. Vishay disclaims any and all liability and bears no responsibility for the accuracy, legality or content of the third-party website or for that of subsequent links.

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.