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

Pb-free

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

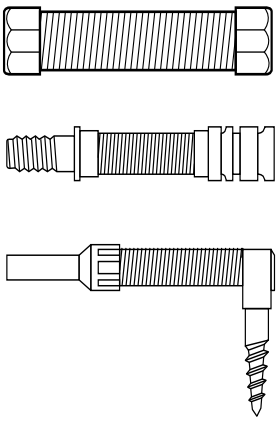
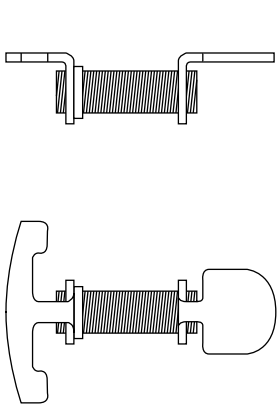
Notes

(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.

TYPE 1 (WITH CAPS)	TYPE 2 (WITH ELECTRODES)
	

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)	TYPE (5 digits)	SPECIAL (6 digits)
2306309 = NSR	TYPE 1 = NSR-1xxx TYPE 2 = NSR-2xxx Example: **90078** = 1078 **90079** = 2079	**000001** = Crimped caps **000002** to **999999** as applicable

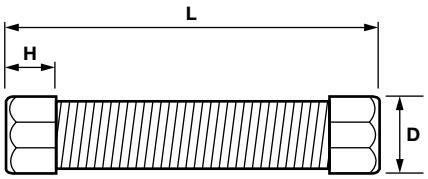
Note

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

For technical questions, contact: ww2aresistors@vishay.com

TYPE 1 - NOISE SUPPRESSOR WITH CAPS

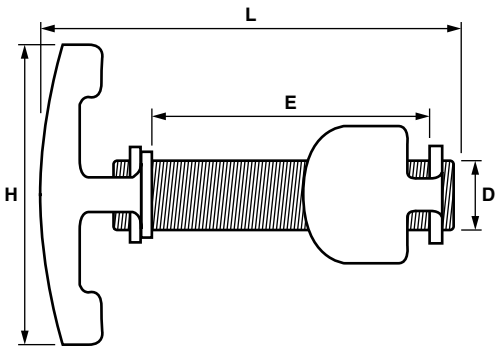
ELECTRICAL AND DIMENSIONAL DATA in inches [millimeters]



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.

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