

## Wirewound Resistors, Noise Suppressor



### FEATURES

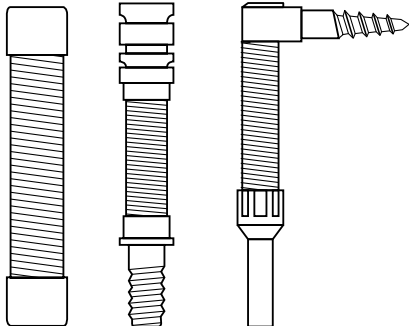
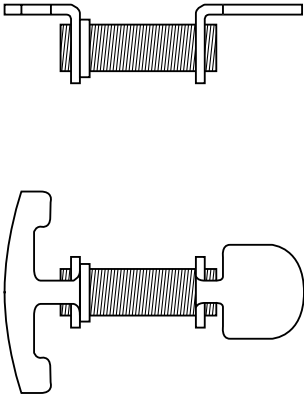
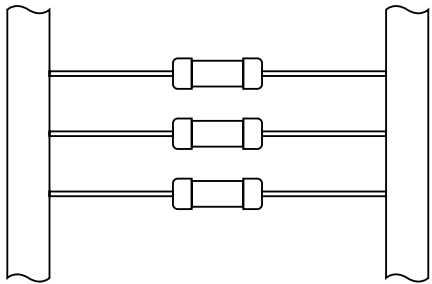
- Ideal for reducing RFI during electrical discharges on gasoline engines
- Variety of resistance and inductance values available
- Special design of electrical contacts upon request
- Capability to withstand high voltage pulses at high frequency



**RoHS**  
COMPLIANT

### TECHNOLOGY

The resistor element is a resistive wire, which is wound in a single layer on a fiberglass core (ceramic core for type 3 shown below). 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, mechanical shock and is able to withstand high temperatures. These products can be moulded with epoxy resin, thermoplastic or thermo set plastic materials.

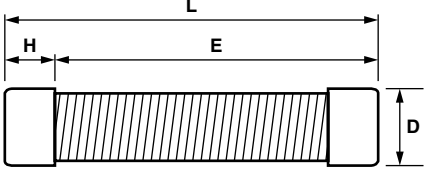
TYPE 1 (WITH CAPS)	TYPE 2 (WITH ELECTRODES)	TYPE 3 (AXIAL LEAD WIRE TERMINAL)
		

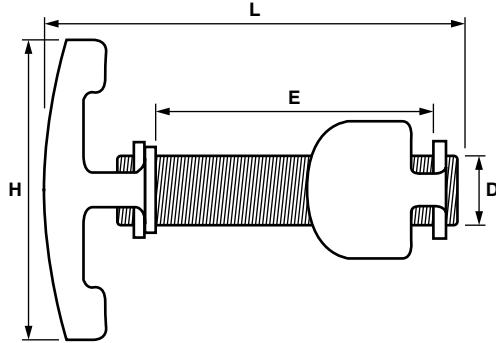
TECHNICAL SPECIFICATIONS		
PARAMETER	UNIT	NSR CHARACTERISTICS
Resistance Range <sup>(1)</sup>	$\Omega$	1K - 15K
Tolerances <sup>(2)</sup>	%	$\pm 10$ , $\pm 15$ , $\pm 20$
Inductance Range, 2 MHz <sup>(3)</sup>	$\mu\text{H}$	5 to 72
Temperature Coefficient	ppm/ $^{\circ}\text{C}$	$\pm 250$
Operating Temperature Range	$^{\circ}\text{C}$	- 40 to + 200

#### Notes:

- <sup>(1)</sup> Special resistance values available upon request  
<sup>(2)</sup> Other tolerances available upon request  
<sup>(3)</sup> Special inductance values available upon request

**TYPE 1 - NOISE SUPPRESSOR WITH CAPS**

MECHANICAL DATA in millimeters (inches)							
							
ELECTRICAL DATA			MECHANICAL DATA				CODE NUMBER
VALUE	TOLERANCE	INDUCTANCE TYPICAL	L	D	H	E	
5 kΩ	± 20 %	20 μH	20.0 (0.79)	3.88 (0.153)	2.85 (0.112)	15.1 (0.60)	2306 309 90035
5.2 kΩ	± 15 %	15 μH	16.8 (0.66)	3.15 (0.124)	2.40 (0.094)	13.0 (0.52)	2306 309 90047
1 kΩ	+ 20 % - 10 %	16 μH	16.8 (0.66)	3.15 (0.124)	2.40 (0.094)	13.0 (0.52)	2306 309 90048
5 kΩ	± 20 %	18 μH	23.7 (0.93)	3.88 (0.153)	2.85 (0.112)	18.8 (0.74)	2306 309 90053
1 kΩ	± 20 %	10 μH	23.7 (0.93)	3.88 (0.153)	2.85 (0.112)	18.8 (0.74)	2306 309 90078
1 kΩ	± 20 %	9 μH	26.0 (1.02)	3.88 (0.153)	2.85 (0.112)	20.3 (0.80)	2306 309 90085
1 kΩ	± 20 %	5 μH	20.0 (0.79)	3.88 (0.153)	2.85 (0.112)	15.1 (0.60)	2306 309 90086
5 kΩ	± 20 %	16 μH	23.7 (0.93)	3.88 (0.153)	2.85 (0.112)	18.8 (0.74)	2306 309 90094
15 kΩ	± 20 %	72 μH	27.3 (1.08)	3.82 (0.15)	2.85 (0.112)	22.4 (0.88)	2306 309 90095
1.12 kΩ	± 20 %	13 μH	11.9 (0.47)	4.35 (0.171)	2.85 (0.112)	6.4 (0.25)	2306 309 90101
2 kΩ	± 20 %	14 μH	13.5 (0.53)	4.35 (0.171)	2.85 (0.112)	8.0 (0.32)	2306 309 90105
2 kΩ	± 20 %	21 μH	27.3 (1.08)	3.88 (0.153)	2.85 (0.112)	22.4 (0.88)	2306 309 90106
2 kΩ	± 20 %	8 μH	20.0 (0.79)	3.88 (0.153)	2.85 (0.112)	15.1 (0.60)	2306 309 90107
5 kΩ	± 20 %	10 μH	23.7 (0.93)	3.88 (0.153)	2.85 (0.112)	18.8 (0.74)	2306 309 90108
2 kΩ	± 20 %	9 μH	26.0 (1.02)	3.88 (0.153)	2.85 (0.112)	21.1 (0.83)	2306 309 90112

**TYPE 2 - NOISE SUPPRESSOR WITH ELECTRODES****MECHANICAL DATA** in millimeters (inches)

ELECTRICAL DATA			MECHANICAL DATA				CODE NUMBER
VALUE	TOLERANCE	INDUCTANCE TYPICAL	L	D	H	E	
5 k $\Omega$	+ 20 % - 10 %	50 $\mu$ H	34.3 (1.35)	3.9 (0.16)	11.0 (0.43)	23.5 (0.93)	2306 309 90008
4.5 k $\Omega$	$\pm$ 10 %	17 $\mu$ H	26.3 (1.04)	3.0 (0.12)	10.5 (0.42)	14.4 (0.57)	2306 309 90009
5 k $\Omega$	$\pm$ 10 %	19 $\mu$ H	30.2 (1.19)	3.0 (0.12)	10.5 (0.42)	14.8 (0.58)	2306 309 90014
5.3 k $\Omega$	$\pm$ 15 %	56 $\mu$ H	34.3 (1.35)	3.9 (0.16)	18.0 (0.71)	23.5 (0.93)	2306 309 90021
1.1 k $\Omega$	$\pm$ 15 %	9 $\mu$ H	29.7 (1.17)	3.9 (0.154)	18.0 (0.71)	10.6 (0.42)	2306 309 90027
1.1 k $\Omega$	$\pm$ 15 %	8.5 $\mu$ H	29.7 (1.17)	3.9 (0.16)	11.0 (0.43)	10.6 (0.42)	2306 309 90029
1 k $\Omega$	$\pm$ 10 %	5 $\mu$ H	30.2 (1.19)	2.95 (0.12)	10.5 (0.42)	14.8 (0.58)	2306 309 90038
5.2 k $\Omega$	$\pm$ 13 %	54 $\mu$ H	34.1 (1.34)	3.9 (0.16)	8.15 (0.32)	23.5 (0.93)	2306 309 90055
1 k $\Omega$	$\pm$ 10 %	5 $\mu$ H	30.2 (1.19)	3.0 (0.12)	18.0 (0.71)	14.8 (0.58)	2306 309 90057
5 k $\Omega$	$\pm$ 10 %	20 $\mu$ H	30.2 (1.19)	3.0 (0.12)	18.0 (0.71)	14.8 (0.58)	2306 309 90058
1 k $\Omega$	$\pm$ 10 %	4 $\mu$ H	35.3 (1.39)	3.0 (0.12)	18.0 (0.71)	20.4 (0.81)	2306 309 90069
5 k $\Omega$	$\pm$ 10 %	16 $\mu$ H	34.25 (1.35)	3.0 (0.12)	18.0 (0.71)	19.2 (0.76)	2306 309 90079

**Note:**

- Other electrode designs available under request

**TYPE 3 - NOISE SUPPRESSOR WITH AXIAL LEAD WIRE TERMINALS**

MECHANICAL DATA in millimeters (inches)										
ELECTRICAL DATA			MECHANICAL DATA							CODE NUMBER
VALUE	TOLERANCE	INDUCTANCE TYPICAL	L	Ø D	Ø d	C	A	F1 - F2	S	
1 kΩ	± 20 %	18 μH	11.8 (0.47)	4.7 (0.19)	0.80 (0.031)	32.0 (1.26)	63.0 (2.48)	≤ 1.4 (≤ 0.06)	10.0 (0.40)	<b>2306 326 90136</b>

**ORDERING INFORMATION**

Composition of the catalogue Number:

2306 309 90xxx (fiberglass core) or 2306 326 90xxx (ceramic core)

The last three digits (xxx) in the above code number are defined in accordance with each new developed product. Contact factory for details.



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