

## Cemented Wirewound Resistors



### FEATURES

- 3 W and 4 W at + 40 °C
- Cemented protection
- Non flammability
- Industrial applications
- Low values available: 20 mΩ available (for SG3)  
100 mΩ available (for SG4)
- Material categorization: For definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)


**RoHS**  
COMPLIANT

### DIMENSIONS in millimeters (max.)

	<b>MODEL</b>	<b>Ø A</b>	<b>L</b>
	SG3	5 (5.2 for ≤ 0.2 Ω)	13
	SG4	5.5 (5.8 for ≤ 0.5 Ω)	15.8

### STANDARD ELECTRICAL SPECIFICATIONS

MODEL	RESISTANCE RANGE Ω	RATED POWER $P_{40\text{ }^\circ\text{C}}$ W	LIMITING ELEMENT VOLTAGE V	TOLERANCE ± %
SG3	0.02 to 3.3K	3	100	5
SG4	0.02 to 3.9K	4	125	5

### MECHANICAL SPECIFICATIONS

Mechanical Protection	Cement
Resistive Element	Ni Cr wire
Connections	Copper tinned

### TECHNICAL SPECIFICATIONS

	SG3	SG4
Critical Resistance	3.3 kΩ	3.9 kΩ
Temperature Coefficient (typical)	$V\Omega < 0.1 \Omega$ 300 ppm/°C	
Temperature Coefficient (typical)	$V\Omega \geq 0.1 \Omega$ 150 ppm/°C	

### ENVIRONMENTAL SPECIFICATIONS

Temperature Range	- 55 °C to + 250 °C
Climatic Category	55/250/21

### PERFORMANCE

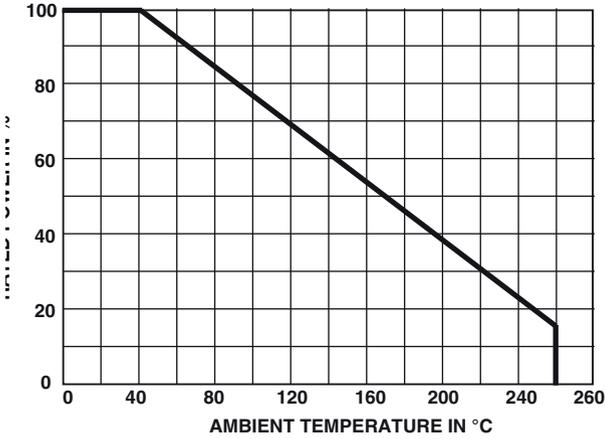
TESTS	CONDITIONS	TYPICAL VALUES AND DRIFTS
Short Time Overload	$5 P_n$ during 5 s	± (1.5 % + 0.005 Ω)
Rapid Change of Temperature	EN1400 CEI-115-1, - 55 °C + 200 °C 5 cycles	± (1 % + 0.005 Ω)
Humidity	EN60115-1, 56 days 93 % RH	± (1 % + 0.005 Ω)
Load Life	MIL-STD 202, method 108 $P_r$ 1000h	± (5 % + 0.005 Ω)
Moisture Resistance	MIL-STD 202 method 106	± (1 % + 0.005 Ω)
Vibration	MIL-STD 202 method 204, Test 20 g, 10 Hz/2000 Hz	± (0.5 % + 0.005 Ω)
Shock	MIL-STD 202 method 213, Test C	± (0.5 % + 0.005 Ω)



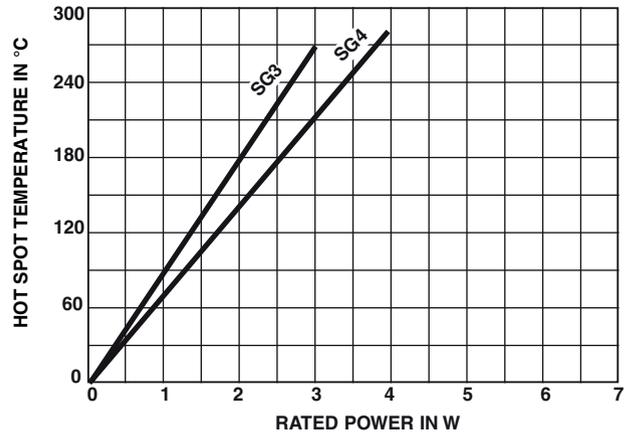
**SPECIAL FEATURES**

Please consult Vishay Sfernice for other ohmic values and tolerances.

**POWER RATING**



**TEMPERATURE RISE**



**MARKING**

GEKA trademark, model, style, nominal resistance (in  $\Omega$ ), tolerance (in %).

Note: For low ohmic values, ( $< 0.1 \Omega$ ), quality of marking cannot be guaranteed.

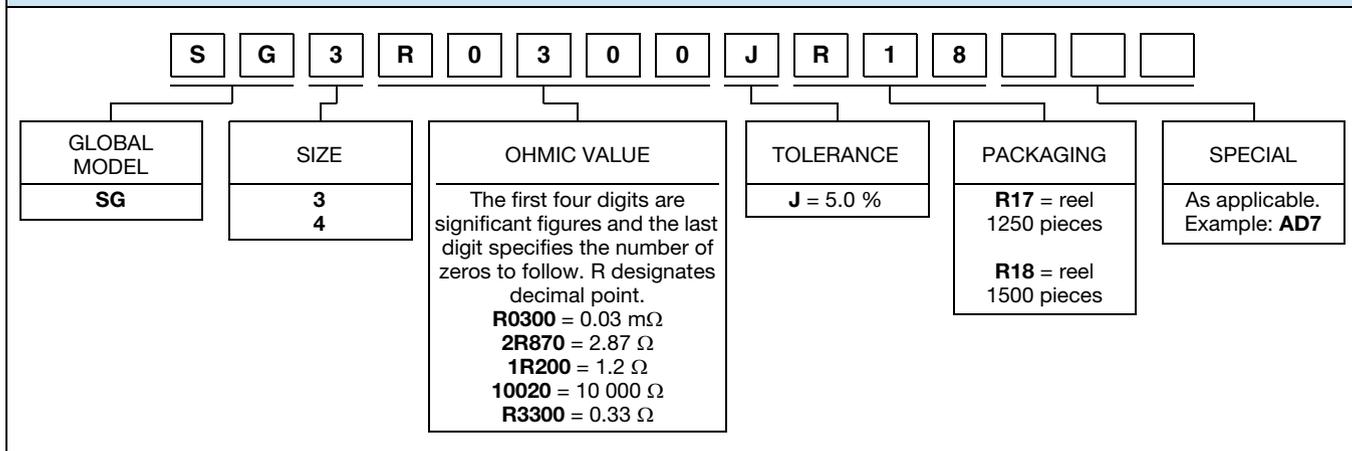
**PACKAGING**

Tape and reel packaging by:  
 - 1500 pieces SG3  
 - 1250 pieces SG4

**ORDERING INFORMATION**

<b>SG</b>	<b>3</b>	<b>330 <math>\Omega</math></b>	<b><math>\pm 5 \%</math></b>	<b><math>\pm 150 \text{ ppm}/^\circ\text{C}</math></b>	<b>TR1500</b>	<b>e3</b>
MODEL	STYLE	OHMIC VALUE	TOLERANCE	TEMPERATURE COEFFICIENT	PACKAGING	LEAD (Pb)-FREE
	3 4			$\pm 300 \text{ ppm}/^\circ\text{C}$		

**GLOBAL PART NUMBER INFORMATION**





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