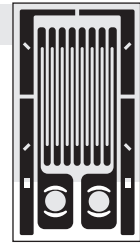


## Transducer-Class® Strain Gages with Advanced Sensors Technology

### J5E SERIES

J5E gages are a family of platinum-tungsten-alloy patterns constructed with a thin, flexible polyimide backing. Sensing grids are fully encapsulated by a polyimide film overlay and include a preformed solder dot on each gage tab. With a gage factor more than double that of conventional strain gages, platinum-tungsten-alloy patterns provide standard transducer output levels at less than half the normal spring-element stress values. This allows for higher overload safety, increased fatigue life, and improved linearity in many transducer designs. A negative gage-factor-versus-temperature slope also provides modulus compensation in many types of steel transducer spring elements. A relatively high thermal output of platinum-tungsten alloy makes precision static measurements difficult. J5E gages are not manufactured with the Advanced Sensors Technology



GAGE SERIES	TEMPERATURE RANGE		GAGE FACTOR (SEE NOTE)	FATIGUE LIFE	
	STATIC	DYNAMIC		STRAIN LEVEL IN $\mu\epsilon$	NUMBER OF CYCLES
N2A	-100° to +200°F (-75° to +95°C)	Same as Static	2.05 nom.	$\pm 1500$ 1500	$10^7$ $10^8$ <sup>(2)</sup>
J2A	-100° to +200°F (-75° to +95°C)	Same as Static	2.05 nom.	$\pm 1700$ 1700	$10^6$ $10^7$ <sup>(2)</sup>
EA	-100° to +200°F (-75° to +95°C)	-320° to +350°F (-75° to +95°C)	2.05 nom.	$\pm 1500$ 1500	$10^6$ $10^7$ <sup>(2)</sup>
N2K	-100° to +200°F (-75° to +95°C)	Same as Static	2.1 nom. <sup>(1)</sup>	$\pm 1800$	$10^7$
N5K	-100° to +400°F (-75° to +205°C)	-320° to +500°F (-195° to +260°C)	2.1 nom. <sup>(1)</sup>	$\pm 1800$	$10^7$
J5K	-100° to +400°F (-75° to +205°C)	-320° to +500°F (-195° to +260°C)	2.1 nom. <sup>(1)</sup>	$\pm 2000$ 1800	$10^7$ $10^8$ <sup>(2)</sup>
<b>J5E</b>	<b>-100° to +400°F (-75° to +205°C)</b>	<b>Same as Static</b>	<b>4.5 nom.</b>	<b><math>\pm 1500</math></b>	<b><math>10^8</math></b>

#### Notes:



Advanced Sensors gages are supplied with nominal gage factor values that will vary slightly with pattern. They are not suitable for strain measurement in stress analysis applications. Request our Precision Strain Gages databook, or contact our Applications Engineering Department, for a complete listing of gages for precision strain measurement applications.



<sup>(1)</sup> Nominal gage factor is 2.2 for EMC options.



<sup>(2)</sup> Unidirectional strain.

**Transducer-Class® Strain Gages**

<b>GAGE PATTERN</b>	Actual size shown. Enlarged when necessary for definition.		<b>GAGE DESIGNATION</b>	<b>RES. IN OHMS</b>	<b>STANDARD CREEP CODE</b>
	<b>DIMENSIONS</b>	<input type="checkbox"/> inch <input type="checkbox"/> millimeter			


				Miniature linear pattern.										
					<b>GAGE LENGTH</b> 0.032 0.81 <b>MATRIX SIZE</b> 0.20 L x 0.11 W	<b>OVERALL LENGTH</b> 0.160 4.06 5.1 L x 2.8 W	<b>GRID WIDTH</b> 0.062 1.57	<b>OVERALL WIDTH</b> 0.062 1.57	<b>J5E-NC-S4218-350/S</b> <b>RE-NC-S4218-350</b>	<b>350 ± 0.5%</b> <b>350 ± 0.5%</b>	<b>N/A</b> <b>N/A</b>			
<b>GAGE LENGTH</b>	<b>OVERALL LENGTH</b>	<b>GRID WIDTH</b>	<b>OVERALL WIDTH</b>											


				Popular linear pattern.										
					<b>GAGE LENGTH</b> 0.060 1.52 <b>MATRIX SIZE</b> 0.23 L x 0.16 W	<b>OVERALL LENGTH</b> 0.180 4.57 5.8 L x 4.1 W	<b>GRID WIDTH</b> 0.100 2.54	<b>OVERALL WIDTH</b> 0.100 2.54	<b>J5E-NC-S4219-350/S</b> <b>RE-NC-S4219-350</b>	<b>350 ± 0.5%</b> <b>350 ± 0.5%</b>	<b>N/A</b> <b>N/A</b>			
<b>GAGE LENGTH</b>	<b>OVERALL LENGTH</b>	<b>GRID WIDTH</b>	<b>OVERALL WIDTH</b>											


				General-purpose linear pattern.										
					<b>GAGE LENGTH</b> 0.125 3.18 <b>MATRIX SIZE</b> 0.30 L x 0.16 W	<b>OVERALL LENGTH</b> 0.255 6.48 7.6 L x 4.1 W	<b>GRID WIDTH</b> 0.100 2.54	<b>OVERALL WIDTH</b> 0.100 2.54	<b>J5E-NC-S4220-350/S</b> <b>RE-NC-S4220-350</b>	<b>350 ± 0.5%</b> <b>350 ± 0.5%</b>	<b>N/A</b> <b>N/A</b>			
<b>GAGE LENGTH</b>	<b>OVERALL LENGTH</b>	<b>GRID WIDTH</b>	<b>OVERALL WIDTH</b>											

## Transducer-Class® Strain Gages

<b>GAGE PATTERN</b>	Actual size shown. Enlarged when necessary for definition.		<b>GAGE DESIGNATION</b>	<b>RES. IN OHMS</b>	<b>STANDARD CREEP CODE</b>
	<b>DIMENSIONS</b>	<input type="checkbox"/> inch <input type="checkbox"/> millimeter			


				175-ohm version of S4220 pattern.		
<b>GAGE LENGTH</b>	<b>OVERALL LENGTH</b>	<b>GRID WIDTH</b>	<b>OVERALL WIDTH</b>			
0.125	0.255	0.100	0.100			
3.18	6.48	2.54	2.54			
<b>MATRIX SIZE</b>	0.30 L x 0.16 W		7.6 L x 4.1 W	J5E-NC-S4221-175/S RE-NC-S4221-175	175 ± 0.5% 175 ± 0.5%	N/A N/A

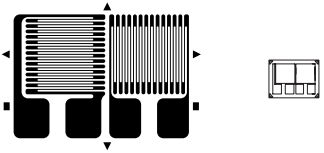
				Compact "left hand" single shear gage.		
<b>GAGE LENGTH</b>	<b>OVERALL LENGTH</b>	<b>GRID WIDTH</b>	<b>OVERALL WIDTH</b>			
0.100	0.324	0.060	0.098			
2.54	8.23	1.52	2.48			
<b>MATRIX SIZE</b>	0.35 L x 0.18 W		8.9 L x 4.6 W	J5E-NC-S4215-350/S RE-NC-S4215-350	350 ± 0.5% 350 ± 0.5%	N/A N/A

				Compact "right hand" single shear gage.		
<b>GAGE LENGTH</b>	<b>OVERALL LENGTH</b>	<b>GRID WIDTH</b>	<b>OVERALL WIDTH</b>			
0.100	0.324	0.060	0.098			
2.54	8.23	1.52	2.48			
<b>MATRIX SIZE</b>	0.35 L x 0.18 W		8.9 L x 4.6 W	J5E-NC-S4216-350/S RE-NC-S4216-350	350 ± 0.5% 350 ± 0.5%	N/A N/A

Transducer-Class® Strain Gages

<b>GAGE PATTERN</b>	Actual size shown. Enlarged when necessary for definition.	<b>GAGE DESIGNATION</b>	<b>RES. IN OHMS</b>	<b>STANDARD CREEP CODE</b>
	<b>DIMENSIONS</b>			

				Dual element shear gage.		
<b>GAGE LENGTH</b>	<b>OVERALL LENGTH</b>	<b>GRID WIDTH</b>	<b>OVERALL WIDTH</b>	J5E-NC-S4217-350/S RE-NC-S4217-350	350 ± 0.8% 350 ± 0.8%	N/A N/A
0.100 ES	0.324	0.060 ES	0.212			
2.54 ES	8.23	1.52 ES	5.38			
<b>MATRIX SIZE</b>	0.35 L x 0.28 W		8.9 L x 7.1 W			

				General-purpose T-Rosette in platinum-tungsten alloy.		
<b>GAGE LENGTH</b>	<b>OVERALL LENGTH</b>	<b>GRID WIDTH</b>	<b>OVERALL WIDTH</b>	J5E-NC-S4225-350/S RE-NC-S4225-350	350 ± 0.8% 350 ± 0.8%	N/A N/A
0.070	0.155	0.100	0.220			
1.78	3.94	2.54	5.59			
<b>MATRIX SIZE</b>	0.19 L x 0.26 W		4.8 L x 6.6 W			