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Test Profile

General Stress Analysis

This category includes most testing situations where some degree of stability under static test conditions is required. For absolute stability with constant gages over long periods of usage and temperatures above +150 deg F (+65 deg), it may be necessary to employ half- or full-bridge configurations. Protective coatings may also influence stability in cases other than transducer applications where the element is hermetically sealed.

Operating Temperature Range

Selection guidelines for temperatures in the range of:

-50 deg to +150 deg F (-45 deg to +65 deg C)

Test Duration	<10 ⁴ hrs	>10 ⁴ hrs	>10 ⁴ hrs	>10 ⁴ hrs
Accuracy*	Moderate	Moderate	Very High	High
Cyclic Endurance	<10 ⁶ ~ at ± 1300 microstrain	<10 ⁶ ~ at ± 1300 microstrain	>10 ⁶ ~ at ± 1600 microstrain	>10 ⁶ ~ at ± 2000 microstrain
Gage Series	CEA, EA	CEA, EA	WA, SA	WK, SK
M-Bond Adhesive	200, AE-10	AE-10, AE-15	AE-15, 610	AE-15, 610

-50 deg to +400 deg F (-45 deg to +205 deg C)

Test Duration	<10 ³ hrs	>10 ³ hrs
Accuracy*	Moderate	High
Cyclic Endurance	<10 ⁶ ~ at ± 1600 microstrain	<10 ⁶ ~ at ± 2000 microstrain
Gage Series	WA, SA	WA, SA
M-Bond Adhesive	600, 610	610

-452 deg to +450 deg F (-269 deg to +230 deg C)

Test Duration	>10 ³ hrs
Accuracy*	Moderate
Cyclic Endurance	>10 ⁶ ~ at ± 2000 microstrain
Gage Series	WK, SK
M-Bond Adhesive	610

up to 600 deg F (up to 315 deg C)

Test Duration	>10 ² hrs
Accuracy*	Moderate
Cyclic Endurance	<10 ⁶ ~ at ± 1800 microstrain
Gage Series	WK
M-Bond Adhesive	610

up to 700 deg F (up to 370 deg C)

Test Duration	<10 hrs
Accuracy*	Moderate
Cyclic Endurance	<10 ⁶ ~ at ± 1500 microstrain
Gage Series	WK
M-Bond Adhesive	610

* **Please Note** : It is inappropriate to quantify "accuracy" as used in this table without consideration of various aspects of the actual test program and the instrumentation used. In general, "moderate" for stress analysis purposes is in the 2 to 5% range, "high" in the 1 to 3% range, and "very high" 1% or better.



Reference Table