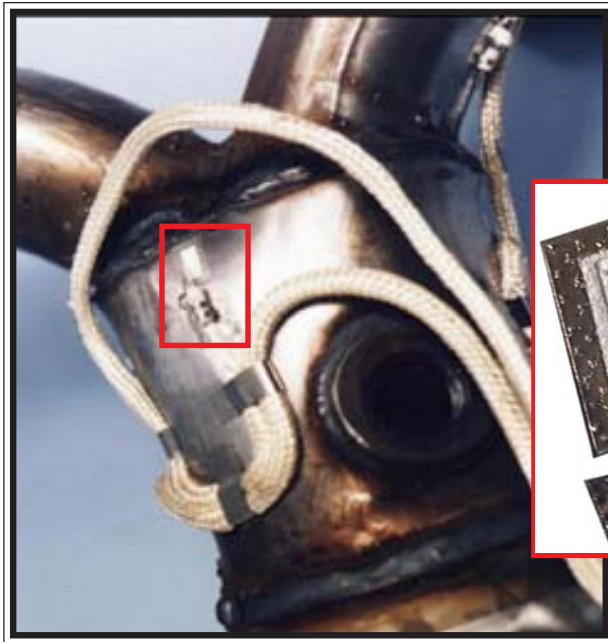


HIGH TEMPERATURE WELDABLE STRAIN GAGES



HBWANV-12-250-X-2CB

The complex strain measuring system used for jet engine blade vibrations is now available pre-installed on an easily spot weldable shim for test measurements to 1000°C.

Purpose: To measure vibratory strain on extremely hot test specimens quickly and easily. Applications to include; automotive, aerospace and power generation engines

Features: Easy attachment to parts using mini spot welder. Arc weldable units also available for larger parts. 980°C maximum temperature. Rugged - withstands hostile environment.

Description: Free Filament strain gages are pre-bonded to superalloy shim stock using ceramic materials. All labor-intensive highly skilled gage installation work is done in our lab. The user spot-welds the shim around its periphery using a mini spot welder with pencil probe hand piece. Installations take a few minutes and may be done in the field, in the cold, or even with gloves on.

Gages are available with pre-attached cables and terminals with ceramic braid or metal sheath ceramic insulated material.

Complete installation instructions and recommended circuit diagrams are available with gage assemblies.



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SPECIFICATIONS

Gage Type: HFN

Gage Factor: 2.0

Sensor Gage Length: 1/16"; 1/4" (1.2mm; 6.5mm)

Sensor Alloy: Nichrome V (80Ni 20Cr) .0007" diameter (.02mm)

Sensor Leads: Nichrome V (80Ni 20Cr) .003" diameter (.08mm)

Temperature Compensation: Uncompensated

Temperature Coefficient: 20 μ s/ $^{\circ}$ F; (36 μ s/ $^{\circ}$ C)

Shim Material: Hastelloy X Standard, 302 Stainless and 6A1/4V Titanium available

Shim Thickness: 0.15mm

Bonding Material: Rokide, High Purity Alumina

Moisture Proofing: None. If necessary strap weld annealed stainless steel shim stock over gage and leads or cover with aluminum foil tape with silicone adhesive.

GAGE DESIGNATION	SEE FIG. NUMBER	SENSOR LENGTH L	SHIM LENGTH SL	CABLE LENGTH CL	CABLE TYPE
HBWANV-12-250-X-NL	1	.250" (6.5mm)	.5" (13mm)	none	none
HBWANV-12-250-X-3CB	3	.250" (6.5mm)	.5" (13mm)	3' (1M)	ceramic braid
HBWANV-12-063-X-NL	1	.063" (1.5mm)	.25" (6.5mm)	none	none
HBWANV-12-063-X-6MG	2	.063" (1.5mm)	.25" (6.5mm)	6' (2M)	metal sheath

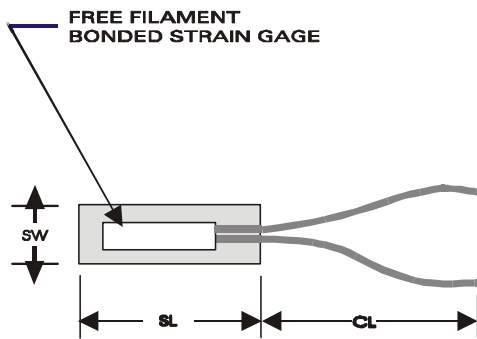


FIGURE 1

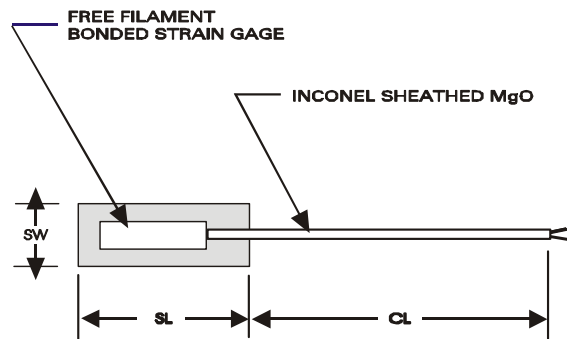


FIGURE 2

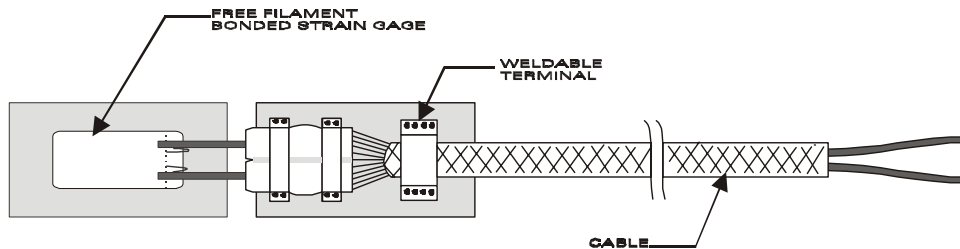


FIGURE 3