

Product Data Sheet



HFM-10-063-ICMW

HFM Series > High Temperature Bondable Strain Gages

Maximum operating temperature: 1600°F (871°C)

Description: Wire resistance strain gages constructed of Moleculoy®, a non-magnetic 75/20 nickel chromium alloy modified with cobalt and aluminum.

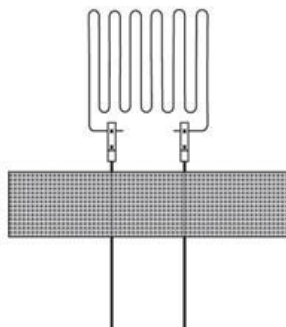
Features: Superior oxidation resistance and excellent mechanical strength.

Uses: Recommended for high temperature vibratory testing

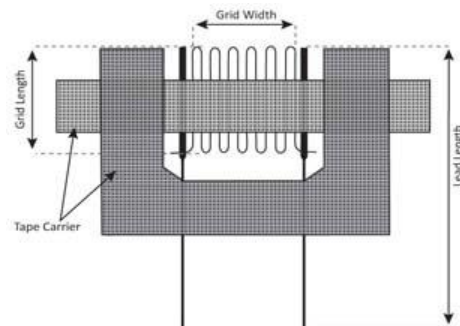
AVAILABLE IN THE FOLLOWING CONFIGURATIONS

Application Methods

Free filament gages are bonded to components using flame sprayed rod or powder, or with a ceramic cement application.



Flattened and heat treated grid, inboard configuration, with straight lead wires (ISMW)



Free filament un-heat treated, round wire grid with temporary tape carrier. A one hour bake at 1050°F should be performed after installation of gage. The gage factor will then increase to 2.4

STANDARD PART NUMBERS

Standard Part Numbers	Strain Type	Gage Resistance (nominal)	Gage Factor (nominal)	Grid Length	Grid Width	Lead Wire	Lead Length	Lead Type	Specification Drawing
HFM-20-125-SCW	Dynamic	200 Ohms	2.0 UHT – 2.4 HT	.125"	.070"	Chromel .003"	2.75"	Straight	50-540
HFM-10-063-SCW	Dynamic	100 Ohms	2.0 UHT – 2.4 HT	.063"	.070"	Chromel .003"	2.75"	Straight	50-541

Standard gage configurations can be customized for individual application needs. Please see the following options table for custom orders; then consult our [sales](#) and/or engineering department to confirm availability and compatibility with your application.



CUSTOM OPTIONS TABLE

Gage Resistance	Grid Length	Lead Length
12 – 120 Ohms	063 – 1/16"	Standard – 2.75"
35 – 350 Ohms	125 – 1/8"	Custom – 2.75" – 12"
	250 – 1/4"	
Lead Wire Configurations		
SPW	0.003" Platinum-Nickel	
LPW	0.005" PT 10 RHO	
SCW	0.003" Chromel A ²	
LCW	0.005" Chromel A	
SNR	0.003" x 0.015" NiChrome Ribbon	
SMW	0.003" Moleculoy Wire	
SHW	0.003" Hoskins 875	
LHW	0.005" Hoskins 875	
ISMW	0.003" Moleculoy wire – inboard configuration with straight lead wire	
ICMW	0.003" Moleculoy wire – inboard configuration with convoluted lead wire	

Packaging: Strain gages are supplied on glass slides, and sold in packages of 5.

Lead Wires: Standard design is a straight, 2.75" length lead. For custom lead lengths and configurations, please consult the Custom Options Table.

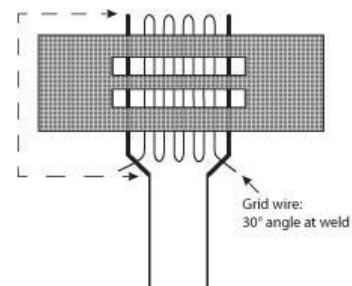
Lead Configurations: High fatigue Z-type leads can be custom ordered for most gages. Consult our [sales](#) department for more information.

Tape Carrier: Fiberglass reinforced Teflon with silicone adhesive. Shelf life: 9 months (adhesive)

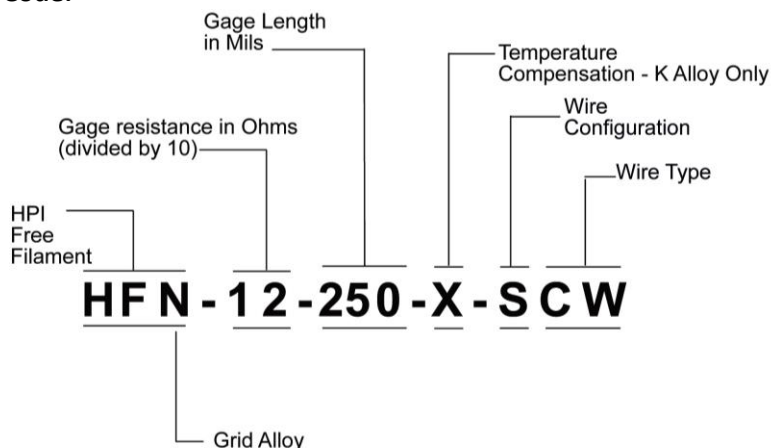
Fatigue Life (nominal): 1×10^6 cycles at $\pm 750\mu"/"$ at room temperature.

Z-LEAD CONFIGURATION

Wire in this area is flattened to .0015" and angled for better stability for long leads (to prevent twisting and rolling)



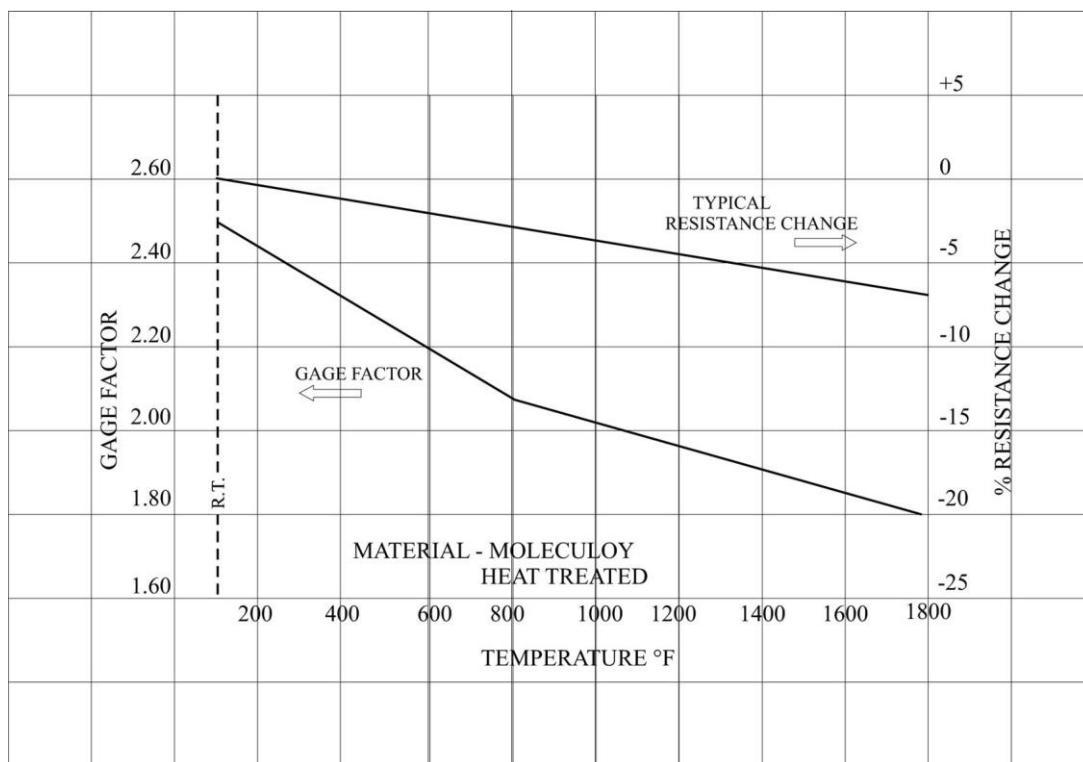
Part Number Designation Code:





ENGINEERING DATA:

**Resistance and Gage Factor Change vs. Temperature for
 HFM-20-125 SCW and HFM-10-063-SCW Gages**



For best results, un-heat treated gages should be heat treated after installation for 1 to 3 hours @ 1050 – 1350°F. This reduces residual stresses from installation and improves durability.

For current pricing on strain gages and installation products, please contact our [Sales Dept.](#) or 978-772-6963