THERM-X | *The Temperature Specialists*

Our Company

Established in 1983, Therm-x takes pride in delivering thermal solutions incorporating our vertical integration capabilities including; Thermal Design and Test, CNC Machining, Metal Joining, Sheet Metal Manufacturing and Integration of these disciplines with Electro Mechanical Assembly.

Therm-x has become a leader in Advanced Temperature and Process Control Systems for the Hi-Technology industries. We continue to develop advanced staffing, tools for design and analysis of customer requirements as well as sophisticated manufacturing capabilities to support design, production, test and delivery of temperature and process control systems

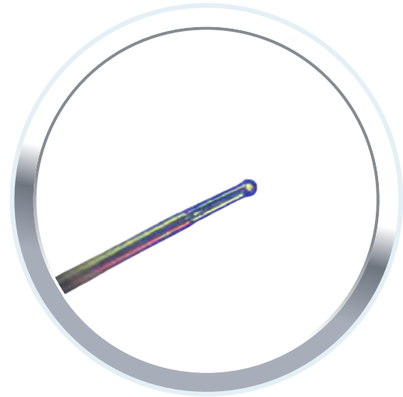
Markets served include Semiconductor and Electronics Equipment, Alternative Energy, Medical/Biotech, Defense/Aerospace, Petrochemical, and Food/Beverage. Cutting-edge manufacturing and advanced engineering capabilities allow us to support the evolving and unique temperature management needs of clients who envision innovative process solutions.

Engineered solutions include:
Heaters, Sensors and Control Systems.

If your application requires a custom solution, our application engineers will work with you from design to product launch to develop the right product for your application. Design support, engineering, manufacturing and testing are done at our facility in Hayward, CA. Therm-x also has inventory on the West Coast for off the shelf products such as Controllers, Thermocouples, RTDs, Thermocouple Wire, Indicators, Data Acquisition and more.

Our low cost region strategic partner Therm-x SVT, located in Vietnam can be your outsource solution for higher volume, lower cost requirements with a quality system developed here in the states.

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THERM-X
THE TEMPERATURE SPECIALISTS

THE MICROBEAD THERMOCOUPLE

the microbead thermocouple

www.therm-x.com

The Microbead Thermocouple

Therm-x world class manufacturing and quality systems combined with extensive knowledge of temperature sensors, makes Therm-x the best solution for these types of complex temperature measurement specifications devices.

Medical requirements demand specific material and process requirements especially when the device enters into the human body. These applications involve high volume, labor-intensive, quality ensured assemblies at cost effective pricing. Therm-x's high standards call for cleanliness, capacity, and superior quality systems.

Definition of Industry

Therm-x microbead thermocouple is focused and designed for use in the medical industry for specialty applications such as catheter, laser liposuction, sleep apnea machines, spirometry equipment, and other medical requirements where very small temperature sensors are necessary.

THERM-X Solutions and Offerings

Therm-x microbead thermocouples are made from medical grade and approved materials including: 40-44 AWG thermocouple wire and medical grade bonding materials. The hot junctions are laser welded, tig welded or soldered using a microscope. We can provide any medical grade overtube materials to isolate the exposed hot junction (polyimide, polyester, teflon and nitinol tubing).

How Does *THERM-X* Solve the Industries Problems

Therm-x has a low cost manufacturing facility to help keep your assembly costs low and to handle your high volume requirements. Therm-x has been well versed and experienced in cutting, loading, welding, stripping, fixturing along with sophisticated QC processes.

THERM-X Provides Value Added Solutions

- Specialized Overtubes
- Connectors
- Special Bead Size the Optimal
- Color Coding and Bonding Materials

Standard Bifilar Polyimide Insulated Wires *(Special limits of error)*

All microbead thermocouples can be laser welded, tig welded, or soldered.

MB	TC Calibration	Wire Gauge	'H' Profile Height	'W' Profile Width	
	K	44 AWG (.0025" Dia.)	.0026 Inches	.0052 Inches	
	K	40 AWG (.0038" Dia.)	.0040 Inches	.0080 Inches	
	T	44 AWG (.0025" Dia.)	.0026 Inches	.0052 Inches	
	T	40 AWG (.0038" Dia.)	.0040 Inches	.0080 Inches	

Ordering Information

"Z" = STANDARD 1/2" STRIPPED LEADS FOR TERMINATION **"A" =** EXPOSED JUNCTION WELDED BEAD

Example Call Out Specifications: 44 AWG. K TYPE, 28" Long, 1/2" Stripped at Termination

MB	TC Calibration	Wire Gauge	Length (Inches)	Termination End	Weld Bead	'X' Option (Customer Supplied Drawing)
MB	K	44	28	Z	A	

Microbead

Calibration

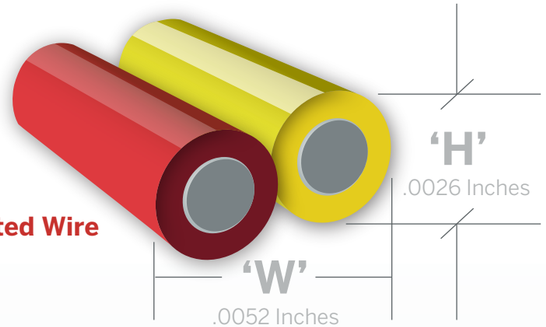
Wire Gauge

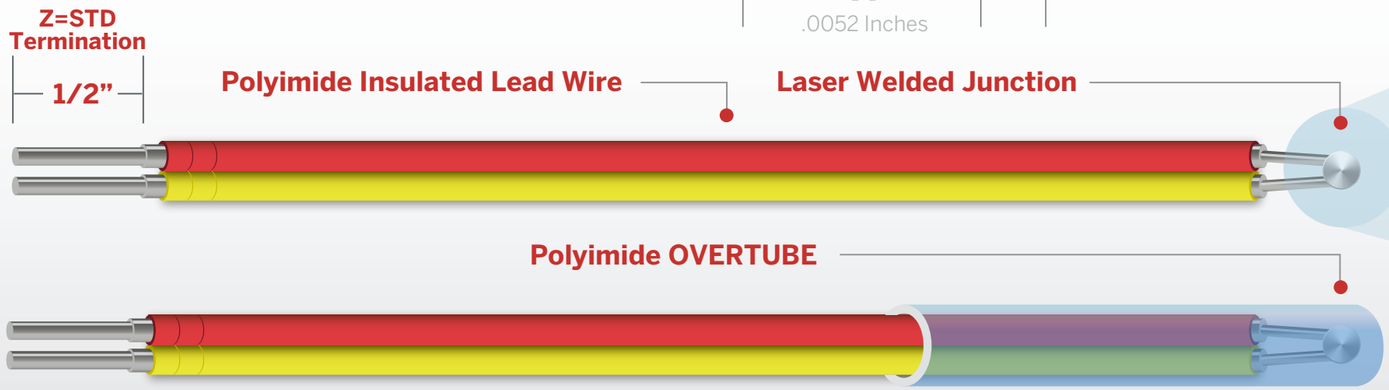
T-C Length Inches

Termination End | Standard = 1/2" Stripped = Z

Hot Junction | Standard = Laser Weld = A

X= Custom Design Customer | Drawing Required





Magnification is 45X Actual Size

